Health Visiting in the Midlands

Report from phase one of the Health Visiting workstream.

Summary

This is a narrative paper which describes the work the Midlands system has initiated to understand and improve Health Visiting Services and delivery of the Healthy Child Programme across the region.

A series of roundtables and face to face workshops were held in November and December 2023 to understand the issues which Health Visiting and 0-5s teams faced from the different perspectives of the Local Authority public health commissioners, professionals within the services and Directors and leads within Childrens Services.

A range of issues to the roundtables, these filtered through into the face to face summit event that enabled further discussion and the development of an action plan.
Four groups of actions came from the work, these are.

1. There was appetite within the room to develop an outcomes framework for the Midlands.
2. To improve the visibility of health visitors' public health work, raising awareness of the breadth of its scope as well as the skills/ expertise and qualifications needed to be a health visitor (role differentiation – how the role of the HV is different from other professionals).
3. Promote better recognition/knowledge of health visiting across senior health and social care partners in the region to push for better solutions to meet the gaps and rising need and to clarify the important interface between children's social care and health visiting.
4. Recruitment and retention – there were discussion around what areas are currently doing to increase the health visiting workforce, through skill mix, in particular, the different working models and skill mix that exist and the need to explore these to understand how to improve services for staff.

After further Consultation with Association of Directors of Public Health (ADPH) West and East Midlands and other key stakeholders in the region, an action plan has been developed which includes.

Action 1a – Providing Professional leadership – Lead by NHS England Midlands
Action 1b – Exploring further the Safeguarding role of Health Visitors - Lead by NHS England Midlands
Action 2 – Developing our use of Data to inform service delivery. - Lead by ADPH
Action 3 – Lunch and Learn style sessions for Health Visitors Lead by BSIL network and ADPH

Action 4 – Repeat roundtables and summit with a focus on with School Nursing/5-19s services - Lead by ADPH

Governance

A core group will meet on a quarterly basis to discuss actions and outcomes and monitor progress. This group includes the current chair of Best Start in Life and ADPH children and young people's lead, the ADPH policy officer, the Children and young people's lead at Office of Health Improvement and Disparities (OHID) Midlands, the Chief Nursing Officer (CNO) Priorities Manager at NHS England Midlands, the Children and young people's Lead Nurse in the Transformation Programme Team in NHS England Midlands and the Senior Education Manager – General Practice Nursing with in the Workforce Training & Education (WT&E) Directorate at NHS England.

Reporting will be through the BSIL network up through to the ADPH networks in the Midlands and through to NHS Midlands children's transformation programme.

In depth report

Background

In 2023, the Association of Directors of Public Health (ADPH) in the Midlands, undertook some work to agree priorities for 2023/2025. One of those priorities was to work with colleagues on the promotion of positive messages around the role of health visiting as a career. This is also an NHS England regional priority.

The aim of this work was to

- develop a better understanding of what health visiting does across the system.
- understand the issues facing HV as a profession, so that we can undertake work to increase Health Visiting numbers.
- Develop an action plan to develop work across the system which supports the career pathway of Health visitors.

To understand further the issues affecting Health Visiting/0-5s services interested colleagues from the Best Start in Life Local Authority Network, ADPH, OHID and NHS England agreed to undertake a piece of work which will improve our awareness of the issues Health Visiting Services face so that we can develop an action plan across the Midlands. This is phase 1 of this workstream.

A small planning group met in October and November 2023 to plan phase one led by the ADPH West Midlands Children and young people's representative and current chair of the Midlands Best Start in Life network and included:

- the ADPH policy officer
- the Children and young people's lead at Office of Health Improvement and Disparities (OHID) Midlands
- the Chief Nursing Officer (CNO) Priorities Manager at NHS England Midlands,
- the Children and young people's Lead Nurse in the Transformation Programme Team in NHS England Midlands
- the Senior Education Manager – General Practice Nursing within the Workforce Training & Education (WT&E) Directorate at NHS England

Three round table events and one summit event between beginning of December 2023 and the end of January 2024. This report summarises the findings of this work.

The Roundtable events.

Two roundtables (for Commissioners and Service leads) comprised of presentations, jamboard, discussions and mentimeter. The roundtable for Directors of Childrens Services and Childrens Services leads was shorter and smaller so discussion and mentimeter captured the outputs. The raw Data and presentations can be found at the end of this report. (Annex 1). Before the commissioner and service roundtables, surveys were undertaken to get a better understanding of service design prior to the roundtables.

What did health visiting Commissioners tell us?
Thirteen teams completed the survey out of twenty-four, which given the tight turn around this was acceptable. Most teams commission for 0-19 whilst four teams had a different configuration. The main issues for the commissioners were:

Safeguarding
Safeguarding and equity of caseloads across area, where some teams were overwhelmed by safeguarding and other teams were not, this gave rise to inequality because the more deprived, the higher the safeguarding concerns the less likely that the Health Visiting teams would have time to do prevention. It was also felt that safeguarding need was increasing and becoming more complex.

It was recognised that early intervention work can reduce the risk of escalation long term, but that lack of time was often to blame for not pursuing concerns early. Lack of capacity within Health Visiting teams to be responsive to meet safeguarding requests often meant that Health Visiting commissioners often heard complaints about the service being unresponsive to Safeguarding issues. Commissioners described situations where there was an expectation that Health Visiting teams could drop all their other work to come to strategy meetings and an expectation that they would knowing all families intimately through mandated checks which was unrealistic in just five visits. There was a feeling that the services have changed but attitudes towards what the service did had not.

Workforce
The most concerns raised were around the workforce with issues such as staff burn out, an aging workforce, new staff not being experienced to manage the complexity of need now seen and pay and conditions being issues commissioners recognised.

Commissioners were keen to see more exposure of general students to the community roles as well as considering ways to grow the workforce, skill mix and apprenticeships. Others felt rebranding the role as Public Health Specialist Nurse would support recruitment of both School Nurses and Health Visitors with the creation of new roles which creates specialist support for child protection using models from other areas such as specific support roles for safeguarding, allowing other roles to focus on prevention.

The commissioners talked about the need for more supervision for new staff and those supporting complex cases which would help practitioners to develop competency-based practice. There was also a desire for the workforce to reflect our communities. Specialist roles in helping support with specific cohort caseloads i.e. specialist SEND HV, Early Intervention health visitor roles, family nurses based on population need and with the ability to cover young people up to the age of twenty-five.

The commissioners talked about the need to celebrate and share positive activity and outcomes and the need for compliments to boost morale. There was also discussion about the need for the Health Visiting Workforce to be seen as professionals and skilled at what they do.

Services
The commissioners highlighted that a focus of the service needs to be on early identification and to support parents with good parenting. There needs to be more capacity to increase 0-5 checks particularly around helping children to be ready for school. School readiness is below national average in many parts of the Midlands.

We need to consider all the boundaries around health visiting and where it meets other services including the roles of Primary Care and other community. This is particularly important when service models are changing and with the impact of *Working Together 2023.*

There was tension between commissioners and providers around targets and delivery of services, long contracts, and the capacity to vary contracts to meet new population demands. This was particularly an issue where family hub work has created additional demands.

Some commissioners felt that there was resistance to change around new models of working and additional support roles. This was particularly an issue for delivery of the Integrated reviews as many where not achieving these across the Midlands. The most popular model saw skill mixed reviews and then professionals come together to check concerns, although this might mean some children were not identified as early in some cases. They expressed the need to ensure other professionals pick up responsibilities, particularly within Health Systems where the default is for the Health Visiting team to pick up safeguarding, even if families are better known to others. There needs to be a co-ordinated and wider, open minded approach to developing services, and not just an ongoing demand for the Health Visiting services who need to meet all needs. This needs to include other partners early help, wider early years workforce etc.

Long waiting times for specialist services can mean Health Visiting /School Nursing are managing cases beyond their competencies. Changes in Social Care will also lead to more work falling on universal services, so design needs to be co-designed. School Nursing is not a mandatory service; many areas do not have the traditional roles now; it would be helpful to have standardised mandatory school model.

Future Commissioning Considerations
The commissioners felt that we need a fair and sustainable funding model which recognises deprivation and that we need agreed case load numbers need to ensure all can do the job effectively. Agenda for change needs to be consistent and fully funded.

They also talked about the need for effective population forecasts to ensure we have designed, and future proofed our services. Within this we need to ensure that our service leads have a voice in LA commissioning and funding decisions. This could include an agreed national tool to manage and interpret caseloads in terms of the staff profiles we need including numbers as this would aid discussions on budgets. The tools available provide good support in identification of risk/needs which is helpful but once we have determined the need, we need to increase the services/resources to manage identified needs.

Other
The group reported that the Family hub programme is a wonderful opportunity for innovation around early intervention and prevention but what happens in March 25 when the funding ends? And how can we use our existing services to make it sustainable?

Do we have a different culture since the pandemic? Use of digital methodologies without the evidence base, are we sure that digital is used effectively, what can we learn in using digital without losing the overarching service objectives.

What did Health Visiting teams and their leads tell us?

Workforce
Health Visitors said that they have too high a caseload to be able to know the families well. This impacts on standards of care, which makes staff feel demoralised. This also dilutes the role of the Health Visitor as others pick up and carry out checks which the Health Visitor feels that they should do.

Recruitment and retention are an issue, it is hard to recruit, and the older workforce means people are thinking of retirement. With high caseloads there is also staff burn out, which impacts on culture within teams. They see newly qualified staff leaving. This depletes the workforce of more experienced staff which then puts more pressure on junior staff and a reliance on support staff who do over and above their roles.

NHS Trust employment rules and financial management restrictions mean that there are gaps in recruitment which leave the existing staff under pressure. A good staff "offer" the employing Trust having the right values is vital for retention and attracting staff. The apprenticeship model was mentioned. It costs NHS Trusts to train staff so whilst this is attractive to the services it is less attractive for trusts.

Because of burnout and cultural issues people move frequently, so the same people recirculate around the system. The way those staff are then utilised means that there is inequity of service across the area.

The training route is long and hard, with the need to become a student multiple times, thus changing grades, people cannot afford to go backwards to train. There is a difference between what you learn at university, commissioners' expectations, and real life.
Some teams have used section 75 agreements to improve partnership working with commissioners. Often there is a focus on Key performance indicators (KPIs) which are meeting target base rather than family centred care. This leads to inadequate quality assurance.

Population growth has not been allowed for in contracts, especially in terms of new builds, families moving into the area and complex asylum seeker cases.

Budget and Finances
The group raised the issue of lack of funding, and competition from other services and programmes such as family hubs, doing Health Visiting work but with less quality and reach,

for example Family Hubs currently may only reach 15% of families whereas Health Visiting reaches 98% of families.

There has been real time reduction in funding, as pay is increased but the public health grant is static, this means that there is static or reducing budgets while demand increases. Some felt that Local Authority funding was less secure than NHS funding. Some felt being funded by the Local Authority was a significant issue.

There have been delays in Health Education England (now NHSE WT&E) confirming funding in time to be able to recruit enough Student health visitors and the funding for posts after they have undertaken the Specialist Community Public Health Nursing (SCPHN) course restricts them from being able to offer posts on completion due to rigid commissioning processes.

Prevention

The group highlighted that Health Visitors should be seen as public health nurses not safeguarding nurses. Whilst there should be involvement in safeguarding, there needs to be a focus on prevention work, especially with complex families. There is a lack of time and staff to deliver community-based health promotion.

More prevention and true public health work is needed, to support universal families to ensure that we have a positive impact on outcome and improve family's confidence in their parenting skills.

Service Design

All children who suffer trauma have health needs - they may not be obvious but require exploring.

There are different and competing conversations across the networks leading to competing models and ways of working which make joining up difficult. Support or work around safe caseloads would really help leaders to have those difficult discussions with commissioner's around safe care.

There was concern that the Family hubs are destabilising the role of the Health Visitor in some areas, but not in a safe or planned way. This has led to a lack of protection of the skill of Health Visiting.

It was highlighted that the COVID pandemic has caused a huge issue leading to a huge decline in face to face contacts, Health Visting teams are conducting a lot of virtual or telephone contacts which may not be good enough.

Often Health Visiting teams feel that they identify needs but are unable to offer interventions to support in meeting these needs. The role of the Health Visitor has become very task orientated, visit content is dictated by Systm1 templates which are more focused round being tick box, task orientated for auditing purposes.

The group discussed the limits of other services impacting on the Health Visiting service, for example, long speciality waiting lists, parents signposted to Health Visiting for support whilst waiting. There is an increase in complexity of contacts, which are more time consuming and require more input and time.

The operational leads need to manage workload, to do that they dilute the active cases, but this leads to staff being demoralised. Health Visitors feel that they are not involved in decision making for their service with an overfocus on ticking the Healthy Child Programme boxes.

Some teams with specialist roles feel that there is good practice out there, that some feel that they are practicing as a Health Visitor should and have a lot of job satisfaction.

Some felt that there was a saturation of skill mix with little operational understanding that anyone can deliver a mandated contact, but the analytical skills and professional curiosity is missing in non SCPHN staff and that there is a greater duplicating work and multiple systems as a result especially now that family hub work has progressed.

There was a strong theme around the Health Child Programme not being enough to support and deliver child health outcomes, 5 visits in 5 years is not enough to make a difference to families, many health visitors acknowledged they did not have the time to do the work they wanted to do but at the same time, felt the current programme of work constrained the effectiveness of their services.

The group talked about increased vulnerabilities putting additional pressures on the service which is already depleted. The talked about staffing and increased high level caseloads and being unable to find capacity to support the families most at need.

Some felt that there was a lack of understanding of the value of public health nursing by commissioners.

Safeguarding
The ability to maintain a high standard of care in services is very difficult with lack of staff, reduction in retention and demands of safeguarding and health inequalities.

Some felt that they were being discouraged from doing safeguarding work, a view that safeguarding was being 'decommissioned' and whilst this was the message, there was no clear agreement with other services who would take this work on. Especially as some areas have no Family Nurse Partnership (FNP) programme and no school nurses. They also noted a lack of integrated working within the safeguarding.

Other
As with Health Visiting, other professions have had recruitment issues and as such there is an inexperienced social worker/family practitioner workforce.

The group raised the issue of other professionals not understanding their role and having less contact with other professionals such as GP's making it harder to maintain relationships.

Poor and inadequate IT systems which do not talk to each other is a problem. Some services had poor old hardware such as laptops and tablets.

An increasing number of pregnant and young families are living in temporary accommodation impacting on health, digital exclusion and the impact of the cost-of-living crisis leaving more families in need.

What did Children Services and their leads tell us?
They felt that there are not enough health visitors to do what they need them to do. They pointed out that there needs to be a strong focus on prevention to stop families reaching crisis.

Keeping Children safe is a priority, and they said they need health representation at Safeguarding reviews and this falls onto Health Visitors which in turn leaves the service vulnerable, they want them to focus on prevention but recognise the balance is hard.

Financial pressures within Local Authorities means that the services are stretched. Sometimes poor communication between the services.

The Health Visitor Summit event 29th January 2024

From the themes which came out of the preparatory events outlined above a face to face summit was planned for the end of January 2024 to take place in Coventry. The summit consisted of a morning of considering policy and innovation in Health Visiting practice chaired by Allison Duggal the Director of Public Health in Coventry whilst the afternoon chaired by Professor Mike Wade, the Regional Director of Public Health (OHID and NHS England Midlands) was a chance to explore in more depth four specific issues which were raised.
The summit was attended by 65-70 people from a wide range of backgrounds, Local Authority public health leads, health visitor leads, health visitors, Safeguarding leads, OHID representatives and NHS England Midlands safeguarding, workforce, and nursing representatives.

There were presentations from Alison Morton, the CEO of the Institute for Health Visiting, Jamie Waterall, Deputy Chief Nurse (Office for Health Improvement and Disparities) and Lynne Reed, Deputy Director of the 0-19 Clinical Programmes Unit (Office of Health Improvement and Disparities)

The event evaluated well, and the room was lively with much energy with many attendees expressing strong motivation to improve the services that we have in the Midlands and willing to help drive change.

Before the workshops, there was a safeguarding conversation. The main themes from the questions were:

Question One- Why does safeguarding dominate health visiting practice?
Theme Discussion
Complexity of need - Points were made in relation to the complexity of cases, from both a health and social perspective. Health visitor felt the needs of families had increased and this in turn impacted on BCYP and their work. They felt that referrals which would have previously been accepted are now refused.
Data - discussion was held on what data was available to report on safeguarding within practice and what outcome metric are in place.
Thresholds - H/V lead and H/V felt the thresholds for safeguarding had altered and this made referral difficult. It was unclear if all areas understood and had multi professional comprehension of the local threshold's documents, and what this articulated into for staff on the ground delivering services- e.g. what there was in place and what role people had.

Question Two – Where do Health visitor make the most impact on safeguarding?
Mandated provision - Having time and delivering mandates F2F to be able to identify need. Ability to have the time to identify clear needs and specific risks.
Quote "if able to deliver preventative work HV can identify & prevent need, but capacity currently does not allow for this."

"Support and intervention at the earliest stage (universal contacts) to prevent escalation & complexity which results in becoming a safeguarding case, which is more difficult to resolve."
Early intervention / Prevention work - Early identification of need through consistent contacts, and mandated checks, access to early help, 1001 days, Pregnancy work with midwifery. Healthy child programme messages, signposting.
Quote" HV make the biggest impact on safeguarding through their preventative work, to build parental knowledge, confidence, and reliance to keep babies' children safe."
Leadership & Relationships - Close working at local level with regular conversations. Having a voice on strategic boards. Closer Relationships and partnership working. Understanding roles
Quote" being the constant for the family, being the face of support."
"Parent -infant relationship -supporting this through strength based behaviour change approaches to reduce risk / harm."
Safeguarding - Confidence to raise concerns, understanding processes.

The afternoon workshops.
The afternoon workshops were.

1. **Using Data, developing a common approach to data -** led by Angela Baker (Coventry CC, BSIL chair)
   Answering the following questions
   Did you find the children?
   Did you do anything about it?
   Did it make a difference?
   Service feedback and Sector led improvement. Collecting more than the mandated – the art of the possible

2. H**ow do we use the precious resource of Health Visitors to get the best outcomes for children and families?**
   Health Visitors offer so much more than 'core contacts' and 'safeguarding' yet often the role, skills and expertise is misunderstood. This workshop is for Health Visitors, and everyone interested in raising the profile of Health Visitors as specialist public health nurses in their area. We look forward to hearing your views, engaging in discussion, and agreeing practical actions and commitment to change with two focussed questions.
   How can Health Visitors raise their profile as specialist public health nurses?
   What role can Commissioners, Children's Services and other stakeholders play in ensuring Health Visitors specialist skills are acknowledged and used most effectively?

3. **Improving integration and the connection between services, professionals, and practitioners.** What achievable things can we do now as individual teams, LAs, ICBs and as a Midlands to improve outcomes for the most vulnerable families? This workshop recognises the many barriers to health visiting teams working across organisational boundaries and cultures with their varied agendas, political contexts, and geographies, many of which may seem outside their control. However, this is a

space to accept the paradoxes and difficulties and move to looking at the practical, realistic, and achievable things which *can* be done now as individual teams, LAs, ICBs and as a region to improve working between services to serve the most vulnerable families.
What works well? What does not work?
What can we do now?

a. at individual team level?
b. at LA level?
c. ICB level?
d. Midland's level?

4. **Supporting recruitment, retention, and training**
Presentation on the NHS Midlands existing work – national/regional perspective. Challenges, solutions, do they work? What proposals do they as a group have? What is their commitment to change?

Discussion of actions at the summit

1. There was appetite within the room to develop an outcomes framework for the Midlands which enabled sharing of
    a. Data so that comparisons could be made between areas.
    b. Explore ways in which we could capture parent experience of the health visiting services.
    c. A methodology for peer review and look back exercises to understand better the issues we have around health visiting.

2. To improve the visibility of health visitors' public health work, raising awareness of the breadth of its scope as well as the skills/ expertise and qualifications needed to be a health visitor (role differentiation – how the role of the HV is different from other professionals). Make the case for 'public health' – equally important as safeguarding/ child protection. Suggestions included:
    a. Start early – raise awareness of the role of HVs at career events in secondary schools to attract students into health visiting as an interesting career choice.
    b. Ensure that the role of health visitors is covered in professional training for key roles including social workers, early years practitioners, pre-reg nurses and medical students. Possibly develop an "induction film" on the HV role for new starters in a local authority/ ICS.
    c. Continuous professional development – benefits of multi-agency training with key partners to increase understanding of HV role.
    d. Facilitate job shadowing opportunities with health visitors.
    e. Promote the work of health visitors through local and national media (newspaper/ television) to raise the profile of local initiatives.
    f. Co-production/ quality improvement (QI) with parents - Ensure that QI takes account of parents' perspectives/ HV contacts make best use of parent's time rather than focusing on "tick box" to achieve organisational compliance. Engage with parents and support them to speak out about the difference that HV made/ also use negative experiences to highlight

the consequences when HV support is not provided, to support QI and a case for investment if needed.

g. Review KPIs to ensure they reflect the breadth of the HV role (beyond process outcome measures – to include access, experience, identification of need, interventions provided/ referrals, and outcomes).

3. Promote better recognition/knowledge of health visiting across senior health and social care partners in the region to push for better solutions to meet the gaps and rising need. This has to include clear understanding of Health visiting limits and the gaps that occur beyond HV practice as well as recognition of the importance of its outputs/outcomes which may not be fully appreciated (the prevention of future need downstream, safeguarding prevention, early intervention on vulnerability, cost savings to health and social care, an early warning system on future need and vulnerabilities as well as all the work that falls outside mandated services and metrics.
4. Recruitment and retention – there were discussion around what areas are currently doing to increase the health visiting workforce, through skill mix. That areas are looking to work differently and to skill mix their teams by bring in Band 5 CYP nurses. This enables a try before you buy model i.e. staff can work in the HV team and see what it entails, they can offer generalist CYO health advice, carry out health checks, with oversight and be involved in clinics. All areas that use this model feel it works well. The only concern raised was when staff do then complete their specialist practitioner course, there may not be funding for them to join the team as a HV. They then move to other areas, so retention is not always supported. There are few areas with Practice Nurse Assessors although this is a growing trend. It was felt that more support of staff was required to maintain retention and reduce sickness. Current staffing levels do not reflect need of the caseload, and caseloads are high in some areas. Staff raised concerns about the level of safeguarding work which is currently required. There was discussion on what training should look like and does it need reviewing.

   There are areas of excellence across the area The practice of taking in band 5 nurses was felt to be good practice, the caveat that funding needed to be available for them to go on to train and organisations are having regular conversations with their service managers and education department to ensure sufficient number of training places are requested through the commissioning process. Some areas had specialist roles that supported teams that released pressure on other team members, it was let there should be the promotion of specialist roles.

   The challenges include, how to support newly qualified staff as there had been push back about taking on safeguarding roles and only wanting to do universal work, this was brought up as a factor for generation z.

   There was further discussion on Practice Nurse Assessors (PNA) role in HV and if this could be supported on a wider scale.

Summary of actions to take forward with leads.

In-depth Action Plan

Action 1a - Professional leadership – Led by NHSE Midlands

The aim of this workstream is to

- Raising the professional profile of Health Visiting and supporting Health Visitors to advocate their practice.
- Promoting the Professional Nurse Advocate role within Health Visiting
- Integrated working - creating the conditions for success through professional leadership.

Action 1b – the Safeguarding role of Health Visitors - Led by NHSE Midlands

The aim of this workstream is to

- Quantifying the role of the Health Visitor in safeguarding; what it is and what it is not.
- Working Together 23 - interpreting the implications for Health Visiting practice and Health Visiting services
- The role of the Health Visitor to identify and evidence health needs of the child where there are statutory interventions in place.

Action 2 – Data workstream - Led by Angela Baker for ADPH

The aim of this workstream is to

- Develop qualitative outcome measures.
- Consider the FNP model to see what we can learn from this reporting system.
- Develop a Midlands wide Dashboard, which will include a workshop to explore how and what can be measured.

Action 3 – Lunch and Learn style sessions for Health Visitors Led by BSIL network ADPH.

The aim of this workstream is to

- Develop a Midlands wide learning hub for shared learning.
- Use system to develop further the knowledge around Local Government commissioning, funding, and budgeting differences.

Action 4 – School Nursing - Led by Angela Baker for ADPH

The aim of this workstream is to

- Repeat the work completed around Health Visiting for School Nursing, this work is planned for October 2024.

Governance

A core group will meet on a quarterly basis to discuss actions and outcomes and monitor progress.

Reporting will be through the BSIL network up through to the ADPH networks in the Midlands and through to NHS Midlands children's transformation programme.

Next steps

- Initial feedback to DsPH – 7th February 2024 (completed)
- Debrief meeting and agree any next steps for the group (completed)
- Create an action plan for future work (drafted)
- Action plan to be monitored through the BSIL network (June Meeting)
- Regular reporting back to DsPH (3rd April 2024)