

Public Health Intelligence strategy and action plan

City and Hackney Public Health Intelligence Team

Foreword

The local government and the public sector in general has historically been slower than the private sector in the scale and the speed at which they adopted innovation in technology, methodology, developed analytical skills as well as were able to demonstrate the impact of their work. This strategy will seek to change that while keeping in mind the proportionality and the rationale for change. It will adopt the pragmatic approach by considering:

- past best practices and lessons learned,
- the resources available,
- the benefits that collaborative work can bring and
- the necessity of introducing new practices whilst ensuring that the highest standards of data governance are maintained.

Overall, the strategy will aim to turn challenges into opportunities for bringing about a measurable change and having a positive impact on the health and wellbeing of City and Hackney residents. This is a live document and it will be reviewed regularly.

Data and insight are necessary to understand the needs of residents, provide best services, produce evidence-based policies, inform behaviour change and other interventions. Through its strategic aims the Public Health Intelligence strategy will support the broader Public Health vision to enable people to lead their best lives, healthy, happy and free by making positive changes within our local communities in the City and Hackney and to achieve more equal society.

Strategic aims and objectives

The pandemic has set different expectations for project completion time, data access, collaborative work and the type of insight that can be generated by using the available data. We are now working faster, using much more complex data sets and are seeking to provide the context to the numbers by default. It is therefore essential that we put in place appropriate processes to sustain current ways of working and ensure the City and Hackney Public Health Intelligence Team (PHIT) have the right set of skills, tools and data access to enable the work.

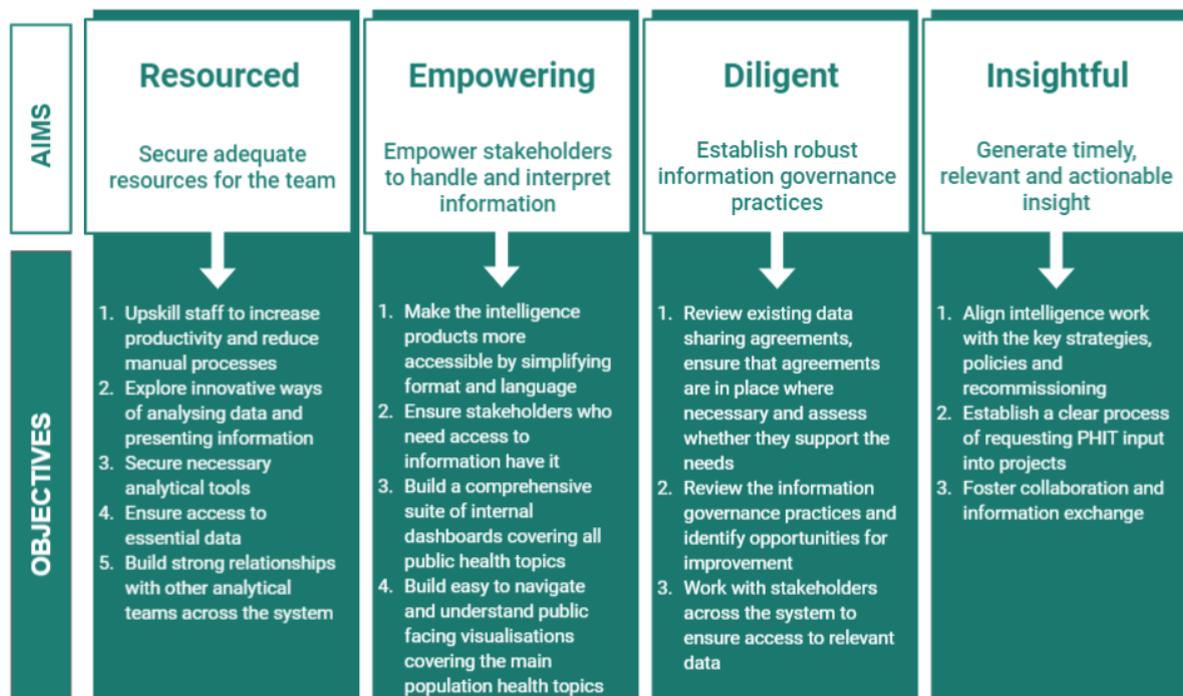
Robust and clear data sharing practices are a crucial element for our work to be timely, relevant, efficient and insightful. Besides the need for faultless information governance and data protection practices, data sharing involves fostering good working relationships and working closely with stakeholders from across the system. Therefore, ensuring that we have these practices in place and have strong relationships with the key stakeholders are among the top priorities of this strategy.

Public health intelligence is often seen as a niche subject area which can result in colleagues in the broader public health team as well as other stakeholders being disengaged from it. Demystifying intelligence work and empowering colleagues to work with data, analyse and interpret them forms another important part of this strategy.

The past few years have brought about a lot of change: from national ambition to move to the integrated commissioning systems to local restructure and the significant challenges brought about by the pandemic. Moving forward, the City and Hackney PHIT aims to be REDI:

- **R**esourced
- **E**mpowering
- **D**iligent
- **I**nsightful

The diagram below presents the City and Hackney PHIT strategic aims and objectives and the following sections outline these in greater detail.



Resourced

Public Health Intelligence is central to improving health, wellbeing and making effective decisions on allocation of resources to a wide range of public sector programmes. Intelligence makes it possible to plan, evidence, execute projects and review effectiveness of programmes and strategies. Therefore, it is crucial that the City and Hackney PHIT is appropriately resourced, skilled, supported and has a clear delivery plan. This will be achieved by fulfilling the below objectives.

Objective 1: Upskill staff to increase productivity and reduce manual processes

The staff skill set needs to evolve with the increasing demand for information at a faster pace. Historically, the PHIT heavily relied on Excel for their analyses and visuals. Using Excel as the core analytical tool creates several issues:

- Static analyses which require lengthy manual processing to complete and to refresh
- Easy to misplace previous work and data protection risks
- Lack of clarity and transparency of analyses if steps not clearly documented/access to background/raw data not available
- Google environment does not support Excel and google sheets are limited in their functionality
- VPN is not accessible post cyber attack, therefore no access to Excel in a secure environment

Given the above limitations, the PHIT has procured Tableau, which is now being used as the main tool to build visualisations. This visualisation package is not sufficient, however, for all intelligence-related tasks because:

- Some of the key stakeholders still heavily rely on Microsoft products, such as Excel.
- Some of the intelligence products provided by stakeholders cannot be opened in Google docs.
- Some of the PHIT datasets are too large to be opened in Google docs.

To respond to these limitations we will continue working with Hackney ICT to find software solutions to enable the team to fulfill their duties. As a result the team will be required to develop additional skills in data management and analysis. Currently, the team has a range of complementary skills, however there is a need for everyone to have the same set of core skills:

- Excellent understanding of the public health intelligence function
- Excellent verbal and written communication
- At least basic statistical knowledge
- Good understanding of information governance
- Ability to work with Tableau at advanced level
- Ability to provide insight through visualisations
- Ability to code
- Ability to query databases
- Ability to use applications enabling automation, for example Application Programming Interface (API)

Long-term other aspects of data science such as artificial intelligence, machine learning and predictive analytics will be explored to understand if they add utility to the PHIT's work.

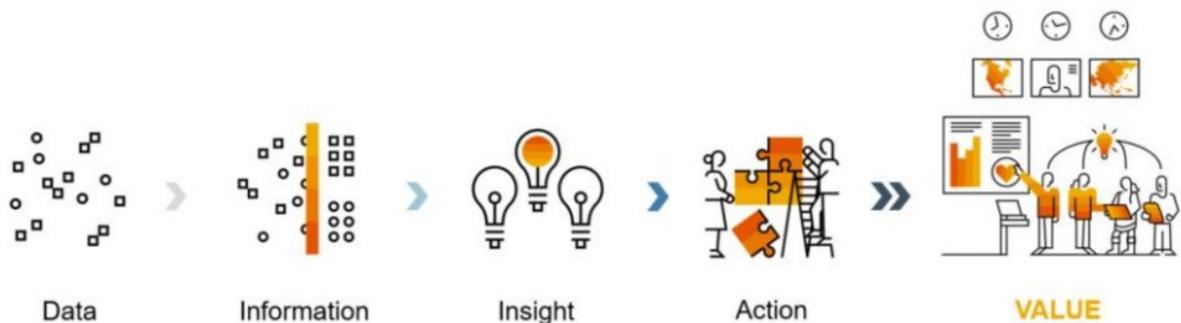
The core skill set will be achieved through a combination of both formal and informal learning. Some members of the team are already enrolled on the government Data Fellowship Programme, which covers data analytics and data science. Further Tableau training will take place once the team has all its permanent staff. Informally, linking with other

analytical teams can provide a good opportunity to learn and advance on the existing skills and knowledge.

Objective 2: Explore innovative ways of analysing data and presenting information

Historically, the bulk of the PHIT work was dedicated to the first two steps of the data journey: data and information. This is insufficient and does not allow the objectives of increasing efficiency, better knowledge sharing, informing key strategies, policies and commissioning to be met. Therefore, the PHIT work plan should reflect the shift towards insight generation and providing value.

Data journey



Source: Strategic Focus

Transforming the team's skill set, having access to necessary tools and building strong relationships with the stakeholders will be key in achieving this.

Objective 3: Secure necessary analytical tools

In line with the proposed core skill set and in order to fulfill several objectives in this strategy it might be necessary to adopt different analytical tools. City of London and Hackney ICT will be the first point of call and the key stakeholders when planning for adoption of any tools outside the existing suite.

Discovery and the NEL data team will be other important stakeholders when achieving this objective. Establishing strategic links with industry, national bodies such as NHS Digital/ NHS X and academic institutions will also ensure effective horizon scanning of new developments and broaden the knowledge base of the team.

The Data Fellowship Training Scheme will provide a good overview of other tools available on the market. A thorough market research will be conducted to find the most cost effective and user friendly tools in the instances where the general ICT suite cannot provide them.

Objective 4: Ensure access to essential data

A review of the data collected by service providers across the system showed a varied degree of detail in these data. It has highlighted that information around inequality in accessing services and client profile data, including key socio-demographic characteristics, are not routinely collected or analysed. This makes it difficult to work on service

improvement and on making services equitable. Equitable and inclusive access to services is one of the top priorities not just for Hackney Council, but for the integrated system as a whole and the data collection practices need to reflect this.

The PHIT will be working with colleagues from across the system to better understand what is currently collected, reported and used as well as what additional data we need to improve our services. This is aligned with NHSE Phase 3 recommendation: 'Mandate comprehensive and quality ethnicity data collection and recording in NHS and social care data collection systems, including at death certification' and the recommendation within the PHE beyond the data report: "To deepen our understanding of the wider socio-economic determinants, improve data recording of faith and ethnicity and greater use of community participatory research".

Objective 5: Build strong relationships with other analytical teams across the system

Collaborative work can help in supporting the team's capacity and is important if we are to avoid the duplication of effort. The PHIT will be working closely with the Hackney Population Health Hub, colleagues from other Council Teams, the NHS, voluntary sector and the North East London (NEL) Integrated Care System (ICS) and will seek strategic partnerships with both academic units and commercial partners to bring together data and insight.

The first step to meet this objective is to identify the key teams PHIT should be liaising with regarding information sharing and knowledge exchange, collaboration on projects, training and shadowing opportunities. The following steps will be to review existing service contracts to better understand roles and responsibilities of analytical teams across the system, get informed on their delivery plans and identify analytical overlap. All of these steps will help in PHIT work planning and delivery as well as in establishing strong collaborations on projects, including the Joint Strategic Needs Assessment (JSNA).

Empowering

Significant efficiency savings can be gained through empowering stakeholders to use the PHIT intelligence products with confidence. Learning to understand and interpret population statistics can in turn serve as a part of continuous professional development for stakeholders, especially if they are seeking to expand on their competencies in the field of Public Health or beyond.

The COVID work has shown that providing stakeholders with the right and easily accessible information and insight can significantly reduce the amount of time the PHIT spends writing reports. The team will seek to build on this work and will consider stakeholders feedback on format and language when building new intelligence products. The long-term aim for the team is to have interactive data visualisations for all of the key areas in public health, including service data.

Objective 1: Make the intelligence products more accessible by simplifying format and language

As discussed in the section [Explore innovative ways of analysing data and presenting information](#) previously a large proportion of PHIT work was concentrated on the first two steps in the data journey. The main route to communicating insight was through the needs assessments and similar reports. While the joint needs assessment (JSNA) reports were extensively utilised by stakeholders, they took on average around a year and a half to produce and get a sign off. This process was too lengthy and often new data became available before the reports were published, meaning that the reports did not contain all up to date information.

The reports were long, with fixed structure even where no data were available; they were presented as a static pdf document. Data procurement took a significant amount of time and the responsibility for this lay predominantly with the PHIT, as did data cleaning, analysis, visualisation, interpretation and the writing up of the relevant needs assessment chapters. This way of working presented several issues:

- The PHIT might not be picking up areas of importance, because they were often unfamiliar with data from different service areas
- Following from that, the PHIT might not request the right data (again, where the team are not specialists on a subject)
- The PHIT would not receive adequately detailed data or badly formatted data (e.g. they would be sent one data point rather than trends, no breakdown by demographics which makes it difficult to suggest any meaningful action)
- The PHIT would be sent the data they were not familiar with which limits the ability to draw insight from it
- Because the data extracts would be static, the work was difficult to replicate and the process would begin again when a refresh is required
- There was a lot of duplication across similar projects
- This style of working limited analytical collaboration beyond data sharing
- The project ownership lay mostly with the PHIT or wider Public Health Team, even if it would have been more sensible for relevant stakeholders to take the lead on a topic

Learning from the COVID work and building on it, the PHIT will seek to redesign the JSNA process as well as build a suite of visualisations for all of the key public health areas. The latter is discussed in more detail in [Objective 3](#) of this chapter. [A detailed plan on the JSNA redesign](#) has been developed and approved by the City of London and Hackney Health and Wellbeing Boards.

Objective 2: Ensure stakeholders who need access to information have it

As we build and expand on our internal intelligence products, it might be necessary to conduct regular reviews of the user's needs. A preliminary review of the COVID-19 secure tracker use showed that many stakeholders who currently have access do not regularly or at all access the dashboards. A more detailed review is needed to understand whether some of

this is to do with the way information is presented and if not, it is essential that the access is limited only to colleagues who need it.

To meet this objective we will be engaging with the key stakeholders working to better understand information needs and the best format to provide it in. While some of the content across the public health areas might be standard, the PHIT will always seek to provide bespoke insight where needed.

Good communication is crucial in ensuring that the stakeholders are well informed, the intelligence products are well utilised and that the risk of work duplication is reduced. We will seek to develop a communication plan that will help us to firstly understand the best channels of communication as well as to ensure we effectively communicate and promote our products. The newly developed Population Health Hub (PHH) should aid in promoting the PHIT work and aligning the work plan with the system's strategic objectives. More on the PHH in [the Objective 3 section of the last chapter](#).

Objective 3: Build a comprehensive suite of internal dashboards covering all public health topics

COVID-19 has provided a good opportunity of moving the key intelligence outputs into a dynamic platform and of digitalising products. This is evident from a wide use of the existing COVID dashboards, both public and secure. As discussed in previous sections, the PHIT aims to build on this experience and bring all the key public health data into interactive dashboards.

The creation of such a repository will help to meet other objectives set in this strategy, including ensuring access to all essential data, building stronger relationships with stakeholders, making intelligence products more accessible and empowering stakeholders to use and interpret population statistics.

The access to these secure products will be made available on a case by case basis, for example a programme lead will have access to all products on the topic they are leading on and other visualisations, if there is a good user case.

Objective 4: Build easy to navigate and understand public facing visualisations covering the main population health topics

The public COVID-19 dashboard has provided an invaluable resource for stakeholders to stay on top of the key COVID indicators in City and Hackney. The PHIT will apply key learning from this project and build a range of public-facing visualisations to include the key socio-demographic and population health statistics in City and Hackney. This is following from [Objective 1](#) in this section.

The visualisations will be hosted on the City and Hackney JSNA website and will contribute to the objectives of making the public health information more accessible to all. They will also form the key statistics used in the JSNA with the JSNA reports providing more depth for a given public health topic.

Because colleagues both within the local authorities and across the system will benefit from these public profiles, the PHIT will seek to engage them in collecting the data and building the visualisations.

The PHIT will also seek to establish an effective way of updating the visualisations on the JSNA site, including automating data flows and data refresh.

Diligent

The Caldicott data governance principles state that the organisation need to:

1. Justify the purpose(s) for using confidential information
2. Use confidential information only when it is necessary
3. Use the minimum necessary confidential information
4. Access to confidential information should be on a strict need-to-know basis
5. Everyone with access to confidential information should be aware of their responsibilities
6. Comply with the law
7. The duty to share information for individual care is as important as the duty to protect patient confidentiality
8. Inform patients and service users about how their confidential information is used

The PHIT will be reviewing their current practices to see if all the principles are met. It will be working with colleagues to establish robust information governance practices which in turn should increase the confidence in data sharing and foster collaboration. Both routine data processes as well as the practices around original research will be reviewed. We will engage the City of London and Hackney data protection officers, when necessary.

Objective 1: Review existing data sharing agreements, ensure that agreements are in place where necessary and assess whether they support the needs

The pandemic has demonstrated the necessity of having clearly set out DSAs with the key stakeholders. Both previous and emerging health and service access inequalities also highlighted the need for more granular data to be routinely collected and better shared. It is necessary to ensure that our work adopts best practice in sharing, processing, storing and reporting on data requiring a data sharing agreement (DSA). The PHIT, the PHH and the wider system partnership will be working together to update and develop DSAs. More information on the key partners and stakeholders is provided in the [Insightful](#) section of this strategy.

Objective 2: Review the information governance practices and identify opportunities for improvement

Despite the City and Hackney Public Health Team being early adopters of Google Suite, many data files have not been transferred to Google Drives and have subsequently become a liability following the Cyber Attack. The PHIT needs to adopt best data governance practices to ensure all data are securely stored and only people who work on relevant projects have access to sensitive data. To meet this objective, the PHIT will be reviewing their internal processes and aligning them with the Caldicott principles.

Objective 3: Work with stakeholders across the system to ensure access to relevant data

Data sharing was one of the major stumbling blocks for successful collaboration and timely action during the pandemic. It was also a very time consuming part of the previous JSNA process. The PHIT will seek to improve on these processes. This work will be facilitated by fulfilling the objective of detailed data stocktake, reviewing data sharing agreements and establishing robust data sharing practices.

In addition to this the PHIT will actively engage with Hackney ICT in shaping the Council's data lake and database which are currently under development. The PHIT will also collaborate with the NEL data team on the information governance framework in order to ensure the right access to data which will become available through the NEL data platform - currently also under development.

Insightful

All of the objectives in this strategy are interlinked whereby fulfilling some of them will aid in meeting other objectives. Therefore, it is essential that the PHIT are resourced and the best information governance practices are upheld in order to be able to generate timely, relevant and actionable insight. All of this, in turn, will support the strategic goal of empowering stakeholders to use public health intelligence products with confidence.

Reflecting on the previous work practices and the experience during the pandemic, it is clear that good work planning is crucial for project delivery. The PHIT work has to align with other key work across the system and it has to add value. In addition, a clear process should be established for projects that might require a significant time commitment. The latter will ensure that not only do the stakeholders receive the support and insight that meets their needs, but also that the PHIT staff are clear on what they need to deliver.

Lastly, working with stakeholders and through the PHH will ensure that the PHIT work is well disseminated and promoted across all channels.

Objective 1: Align intelligence work with the key strategies, policies, research and recommissioning

Move towards integrated systems has made it ever important to have sound data and information exchange processes, to share resources and to have common strategic goals. Aligning our work with the key strategies, policies and recommissioning will help to meet efficiency demands, ensure that the PHIT delivers support when it is needed, will foster collaboration and research ideas and help to create truly cross-system practices.

In order to achieve this objective, the PHIT will liaise with the key stakeholders and take stock of all upcoming strategies, recommissioning and other key developments that might require intelligence input. This stocktake will provide a solid foundation for the PHIT work plan - a practice that is intended to continue into the future.

Bringing in external support when needed, for example the MSC summer projects and other academic collaborations, will only enrich our work. Therefore, we will liaise with colleagues to establish the most efficient process to do this.

Objective 2: Establish a clear process of requesting PHIT input into projects

Currently, a significant proportion of man hours is spent on ad-hoc tasks and requests that do not have a clear objective. The PHIT needs a robust and transparent process for larger projects in order to avoid projects that are low utility and/or are at risk of mission creep, manage high risk projects and demonstrate value. This will not only help to provide the best possible support to colleagues, but also increase job satisfaction for the intelligence team staff.

Objective 3: Foster collaboration and information exchange

PHIT needs to work with stakeholders to both effectively disseminate and to receive important updates on the work that takes place across the system and at the NEL level. Attending key strategic meetings where decisions are made will ensure that the PHIT are looped into the conversations and can plan and support the work of the City and Hackney Public Health Team and beyond. We will work closely with the Population Health Hub to establish a research pipeline and identify gaps in knowledge as well as to pull resources from across the system to meet the work demands, answer questions and fill in the gaps.

The main goals in building the relationships and communicating with the key stakeholders will revolve around three themes:

- 1: Data processes** - the objectives and actions around data stocktake and data sharing are outlined in the relevant sections.
- 2: Resources** - some of the stakeholders provide the same or similar services with regards to data and analytics; these include the CEG, Discovery Service, the NEL Financial Strategy Team, the NEL Data Platform Team, CoPlug.
- 3: Shared strategic goals** - currently the wider NEL strategic direction regarding data and analytics is unclear; similarly, there is no unified City and Hackney-wide strategy.

[The Population Health Hub](#) will seek to bring together insight and research from wider afield and to join up, coordinate and influence the work across the system. The main purpose of the PHH is to be a shared, system resource in order to provide timely and actionable intelligence, develop practical tools and lead specific projects to influence and support system partners to improve population health and reduce health inequalities. The PHIT will support the work of the PHH while the insight PHH will gather from other teams and work areas will enrich the generally quantitative nature of the PHIT work.

Version control

The table below tracks changes to the strategy.

Version	Changes made	Author	Date