



The Association of Directors of Public Health Data and Intelligence in the Public Health System

ADPH Recommendations

Data access: DsPH should have direct access to all data relating to the health of their local population by default – including Patient Identifiable Data (PID).

Fulfilment of statutory responsibilities: DsPH should be given a right to certain data in order for them to fulfil statutory responsibilities. This means parity between local authorities (LAs) and the NHS in terms of data access, sharing and integration.

Sufficient resource: DsPH should have sufficient resources to manage data, such as data warehouses to store and link data locally, and local public health analysts to analyse this data.

Data and intelligence flow: There should be robust and complete data and intelligence flow across organisational boundaries in a timely manner, including the NHS, UK Health Security Agency (UKHSA), and Office for Health Improvement and Disparities (OHID).

Local Knowledge and Intelligence Teams (LKITs) should continue to support LAs.

The Public Health England (PHE) Fingertips tool – which includes the highly valued Public Health Outcomes Framework (PHOF) should be maintained and strengthened.

Introduction

It is important that LAs and DsPH have access to high quality public health knowledge and intelligence in order to carry out their statutory responsibilities effectively. This includes having access to robust evidence and information to support local health surveillance, needs assessments, quality benchmarking, comparing outcomes, developing plans, and evaluating impact.

The urgency of data sharing during the Covid-19 pandemic demonstrated that it is possible to collect and share effective data both rapidly and securely. These data flows – between organisations, national to local and local to national – must be strengthened and hardwired more widely into the public health system. Compartmentalising data access and knowledge weakens the collective effort and is counterproductive to achieving the core aims of public health and a whole system approach.

Data flow during the Covid-19 pandemic – a case study

At the beginning of the Covid-19 pandemic, a lack of data sharing was a significant hindrance to DsPH protecting the health of their local populations effectively. DsPH were proceeding by guesswork and were prevented from accessing postcode or individual level data – for example, they did not have the postcodes of residents who tested positive for Covid-19 (or any form of the denominator). This systematically delayed effective local responses.

Without PID, DsPH were unable to fully understand the nature of infection and spread within their local

area, or to undertake the ‘detective work’ that is required to understand what is happening and how it can be addressed effectively. Furthermore, the information received was often incomplete, especially in relation to ethnicity and occupation. It also did not capture workplace postcode, which is essential in identifying potential outbreaks where the individual who has tested positive works in a different area to the one in which they live.

Despite repeated calls for the Government and national partners to improve data flows to local DsPH, the same issues were then repeated with vaccination data. This increased the risk of individuals falling through the gaps in the vaccination rollout, with local teams unable to produce actionable intelligence to develop messaging to increase vaccine engagement or improve access to vaccinations.

Conversations between LAs and national partners (such as the NHS, UKHSA (formerly PHE) and OHID) about these flows have too often focused on processes rather than outcomes, as well as what restrictions need to be placed on data sharing, rather than thinking how DsPH can better use data collectively while meeting data protection requirements.

It is notable that improvements have been made to the data flows where the Government has taken a co-design approach, ensuring that councils’ requirements (as key users of the data) are incorporated into the design and that it is fit for purpose. This approach should be applied across all data systems.

There was a significant contrast between the beginning and end of the pandemic with regard to data sharing. The importance of DsPH data access was recognised and data and intelligence became a lot more readily available for DsPH. DsPH were better equipped for targeting preventative measures, such as vaccine information, communicating the spread of disease locally and outbreak control towards specific population groups. Data surrounding vaccine uptake also allowed DsPH to identify specific populations that had low vaccine uptake according to geography, ethnicity and other socio-economic characteristics and target them with intensive hyper-local outreach and engagement strategies to encourage uptake.

It is important to note that data sharing was commonplace in previous years (such as before 2013, when all DsPH in England moved into LAs) and the statutory responsibilities for DsPH have not changed, However the access to data has changed.

Wider issues around the data and intelligence system

Issues around data and intelligence flows between national and local are not new and ADPH, along with others, have been highlighting these issues since before the Health and Social Care reforms of 2012. The issue of data sharing does not simply affect the sharing of data between national bodies, but also within local councils. Some of the issues are briefly explored below.

Bureaucracy

Bureaucracy, including the inability to satisfy conditions for accessing data, is a common issue across LAs. There are several reasons data holders refuse to share data as it threatens the reputation of the organisation if sharing that data is considered unlawful. The legality surrounding the sharing of PID is perhaps the core issue behind data accessibility and sharing. Obstacles associated with the lawful basis for data sharing between LAs and NHS partners have been repeatedly highlighted by DsPH. Specific issues include:

- Requirements for accessing data – these are often unclear, particularly General Data Protection

Requirements (GDPR), the interpretation of the 2012 Health and Social Care Act, and compliance.

- The process for Data Sharing Agreement – getting approval by NHS Digital is time-consuming.
- Requirements for data disposal – obstacles exist related to the ability of LAs to dispose of or destroy data in a way that meets the requirements of NHS England.

Data linkage

DsPH need the ability to link individual level data across multiple datasets and policy areas. These issues do not exclusively apply to health data. Data on housing, policing and education are all relevant when considering the wider determinants of health.

Specific issues raised include:

- Lack of investment to support data linkage.
- Issues related to Information Sharing Agreements (ISAs) not being in place and obstacles obtaining ISAs across different organisations.
- Differences between information governance frameworks and the legal basis for sharing and linking data eg local government data is largely governed by the Digital Economy Act whilst NHS data is governed by the NHS Act.
- Lack of insight into the benefits of pulling this data together.

Data quality

DsPH have repeatedly raised issues around data quality. This includes concerns specifically around:

- The accuracy of births and deaths data.
- Duplicate and missing records.
- Delays resolving issues with data quality and appropriately communicating changes to data users.

Capacity and personnel

A common issue across LAs concerns the loss of public health analytic capacity. The years of cuts to local public health teams have reduced capacity and capability to manage, analyse and interpret data. Wider cuts to LAs have also impacted analytic capacity more generally.

DsPH have increasingly become dependent on public health analysts at a national level, as opposed to a local level, as well as other analysts within their LA. This includes business intelligence analysts who do not have a background in public health and epidemiology. A lack of clear leadership for analytics and data sharing at a system level has hindered coherent local planning.

Enabling local government to be research active

Through initiatives such as Health Determinant Research Collaborations (HDRCs) and Public Health Intervention Responsive Studies Teams (PHIRSTs), the Department of Health and Social Care (DHSC) is investing substantial resources to enable local government to become research active in public health. Public health research in the local government context is likely to focus on the wider determinants of health and involve datasets from a range of sources. Enabling DsPH to access a wide range of data on their populations will maximise the effectiveness of this investment by DHSC.

ADPH Position

Data access for DsPH

In order to carry out their statutory responsibilities effectively, local public health teams need access to high quality data supporting all their functions including healthcare, health inequalities and health improvement, health protection and academic public health. The pandemic has shown that this is feasible within data governance arrangements. An independent body responsible for determining the legality of data sharing in the interest of public good would be beneficial for establishing a framework in which PID is accessible.

DsPH and their teams require PID in order to support a wide range of stakeholders within the NHS, local government and beyond. Particularly, as local public health teams move more towards supporting Population Health Management, it is vital that DsPH (and their intelligence teams) have access to the widest possible range of data covering individual susceptibility and data on the wider determinants of health (eg air quality, access to green space, transport usage, employment etc). This should include access to primary care data at patient level.

Parity between LAs and the NHS

All Upper Tier Local Authorities (UTLAs) should be appropriately accredited to handle confidential data and already handle a range of other sensitive identifiable data – for example, around welfare and criminal justice – legally and safely. The default should be restoring access to patient identifiable NHS data that existed before 2013.

The ability to link data across time, place and services is where the greatest steps forward, in terms of quantitative data, can be made. However, understanding and contextualising this data requires knowledge of local populations and communities. DsPH and their teams have this knowledge and understanding, as well as existing relationships with a wide range of organisations including housing associations and voluntary and community sectors.

DsPH are committed to working with local, regional, and national NHS partners, amongst others, to ensure integrated pathways between the public health services provided in hospital settings and those offered in the community (eg stop smoking and alcohol treatment services) and to ensure that all parts of the health and social care system are focused on population health outcomes and reducing health inequalities.

The data and intelligence system should follow the principle of subsidiarity. This means a locally led public health system where the place is central to decision making and delivery, where DsPH can use their system leadership role to bring together partnerships and are provided with the necessary evidence, data, and intelligence to improve and protect public health.

Sufficient resource to manage and analyse data

There is a need for data warehouses locally to have a central point in which data security can be optimised and managed efficiently, as well as being linked and used across agencies for the public good. DsPH would also benefit from a national toolkit to link NHS data and LA data in a single location, including guidance around engagement, legal justification, technical infrastructure and risk management. Better data infrastructure would allow DsPH access to evidence and intelligence and provide more efficient data management and analysis.

The system also needs to foster the development of a strong and sustainable analyst workforce, in terms of both capacity and skills. Investment is urgently needed to enable DsPH to employ public health analysts and address the cuts which have stripped LA public health analytical capacity. A specific set of skills is needed, which differs from other analytic functions (eg business analytics, performance analytics). Experienced and appropriately trained public health analysts with a grounding in epidemiology and wider public health are vital to ensure the availability of wider local intelligence to inform decision making.

There must also be a greater focus on recruitment and retention of the analyst workforce – for example, through a system wide pipeline approach and professionalisation of the analyst workforce. Clear training and career pathways are needed for public health analysts, as well as a high degree of mobility and flexibility across organisations and sectors to promote greater access to the wider analytical community. Public health analysts are scarce not only due to a lack of definitive career pathways, but also as a result of there being a lack of infrastructure eg public health databases and data warehouses. If sufficient resources were allocated to career pathways and infrastructure, it would produce data that could better inform patient/person outcomes. A long-term plan for public health analytics must be established to improve the public health data and intelligence workforce.

For more information on the public health workforce – please refer to ADPH's *Public health workforce* paper.

Data and intelligence flow across organisational boundaries

The system must be hardwired so that data and intelligence flow to support action. This should include wider demographic and health data to allow for action on inequalities and wider determinants.

There therefore needs to be greater clarity across the system around how data and intelligence is used and by whom. Data, intelligence, and evidence need to be connected across the whole system at national, regional, and local levels. A co-design approach should be adopted where appropriate, to ensure that users – including those at a local level – are involved in the decisions about the data system and the data requirements and are able to provide continuous feedback.

LKITs should continue to support LAs

LKITs provide a valuable service in supporting local intelligence teams to access and understand the data that is available, as well as integrating data outputs across wider geographies. As the amount of data available at local level continues to grow, this support is ever more important. It is crucial that the intelligence expertise provided by LKITs is not lost, and that they continue to support LPHAs in the new system.

In recent years, local governments have become increasingly research active. This is crucial to provide public health research that is practice driven and answers the right questions in order to provide the right data. For example, currently the HDRC programme covers 13 LAs and although it is set to expand to another 10 LAs in 2023/2024, more needs to be done to establish LAs that are evidence-informed, underpinned by research, as seen with research in NHS organisations.

The PHE Fingertips tool

PHE Fingertips is an extremely useful source of data which should be maintained and strengthened within the system. The Public Health Outcomes Framework (PHOF) in particular, is hugely valued by LA public health teams. The way data is managed and made available in a standard format makes it easy for analysts

to work with. This contrasts with the way in which NHS datasets are often made available.

Conclusion

In order to best serve the population's health, it is important to improve the data and intelligence system and address the longstanding issues, particularly around the lack of data flows between national and local. A new strategy for public health intelligence, evidence, data, and modelling is urgently needed which recognises and meets the needs of users at a local level as well as regional and national partners. Comments and questions on the points outlined in this paper are welcome and the opportunity to work with colleagues at a national level to co-design a new data and intelligence system would be of great value.

The DPH role

The core [purpose of the DPH](#) is as an independent advocate for the health of the population and system leadership for its improvement and protection. As such it is a high-level statutory role bridging LAs, the NHS and other appropriate sectors and agencies with responsibilities for health and wellbeing for a defined population. They have a critical role in leading work on prevention, shifting the focus of systems to prevention where real health and wellbeing gains can be made, and in turn, reducing demand on the NHS.

DsPH and their teams have a deep knowledge of their local population and its health and wellbeing needs. They can provide a whole life and whole population perspective to ensure both population and individual needs are met'. DsPH also provide vital technical skills such as health intelligence, developing an evidence base, epidemiology, and health economics.

This document has been developed with input from the ADPH Board and Council, ADPH Data, Research, and Intelligence PAG and further reflects the results of our most recent ADPH Member Survey. The purpose of this document is to discuss the issues currently experienced by Directors of Public Health (DsPH) and their teams and their key recommendations for the improvement of the data and intelligence system. This document has been developed primarily for use by ADPH and our members. Sharing with key external stakeholders is permitted.

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