UK Health Security Agency

LGA/ADPH annual public health conference 2022
Session 3 – Health security: looking to the future

Will Welfare, Interim Director of Regions
Katie Spence, Regional Deputy Director, West Midlands
Paul Mccloghrie, Engagement Director
Health Protection Operations Group, UKHSA

23 March 2022

Evolving Health Protection System

- 1988 CCDCs
- 2002 Getting ahead of the curve - A strategy for combating infectious diseases and HPA
  - Mergers of HPUs
- 2012 PHE
  - Regions and Centres
  - Regions
- 2020 Pandemic
- 2021 Place Focused Health Protection Models

Place Focused Health Protection Models workstream

The Key Questions

What is the optimal model of health protection at different levels of place in England to protect individuals and populations from infectious disease and external hazards?

Within that model what role does the UKHSA play in delivering health protection functions? When it is not delivering, what assurance or enabling roles does it fulfil?

What can we learn from international models of health protection? What is valued about these approaches? What is valued in England? Does this differ?

Our Approach and Outputs

Phase 1: Delineation of challenges in the current system

Key Stakeholder Interviews	• Structured discussion with circa 30 interviewees, plus four seminar style workshops including 2 with CMO. Formal thematic analysis
Expert Working Group	• Internal and External challenge
Scenario Play	• Optimal place based model exercise to understand roles and responsibilities across heath protection. • Two scenarios, 50 multiagency participants
Analysis of Workforce	• Workforce data and projections to understand current and future capacity

Phase 2: Modelling solutions

International Practice	• Models of national to local
International Best Practice Review	• Examination of peer reviewed evidence of best practice
Proposal Review Session	• Detailed exploration of possible models in practice

Phase one: interim conclusions, February 2021

From here to the future place in UKHSA

UKHSA in a place is the way in which health protection science will become operational to protect the population against threats to health. We will deploy the highest quality expertise to support delivery at a local level, using national and regional expertise, technologies, leverage with our partners and supporting surge when greater capacity is required

Bi-directional national to regional delivery system based on national expertise, regional operational capability and partnerships with local government.

Now

Strong focus in regions (JBC, PHE, T&T) and local government on **shared programmes** and **inequalities**. DsPH lack sufficient capacity for health protection and **depend hugely on PHE Health Protection Teams**.

HPTs within regions, delivering on **10k+ outbreaks** per year plus wider teams delivering on **extreme events** and **environmental hazards** to a high level of satisfaction as measured via IPSOS MORI annual surveys

There are key partnerships (e.g. FSA) within the system that require **cohesion** and **mutual respect**. **Clarity of partnerships, roles** and **leadership** within the system are paramount

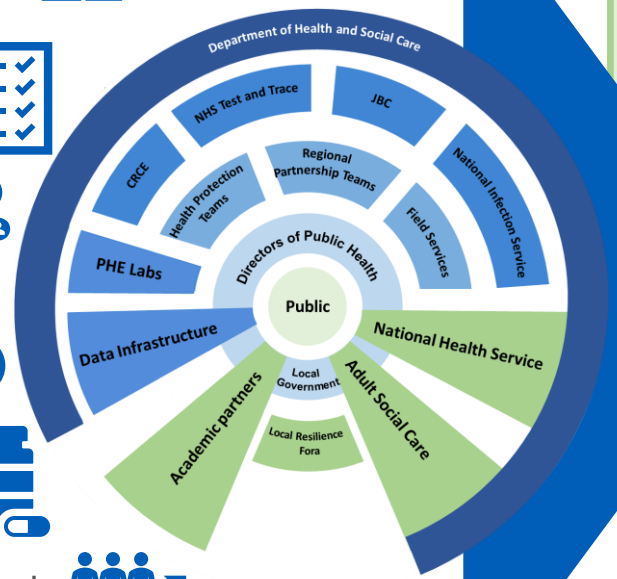
Lack of consistency across health protection geographies such as core standard procedures leading to reduced efficiencies of mutual aid and surge requirements.

Clarity required on responsibility for **pharmacological/ clinical interventions** in outbreak management (e.g. for PreP, vaccinations), Challenges with ownership of AMR, IPC, and in some cases, nosocomial infections.

Residual problems with **inadequate IT fire power for data handling and sharing** across systems, particularly local government

Small amount of lab capacity with mainly specialist focus.

Challenge within a delivery model which encompasses both **a clear line of sight** to the centre and takes into account the **different structures and geographies of place**



A system informed by international and national evidence for high quality delivery and assurance

Future

High quality inputs required to deliver a comprehensive health security system

Comprehensive data infrastructure enabling locally nuanced combined real time data intelligence

Well resourced health protection teams and a flexible workforce supporting local government to address all hazards

Best use of **technology, people (including specialist skills), laboratory testing and infrastructure** created through COVID-19 to complement pre-existing local and regional control teams

An agreed set of outputs and their outcome metrics to enable measurement of health protection functions in delivery and invite challenge on variability

Regional and local partnerships, communications and inter-agency trust enabling UKHSA to translate policy to practice, fostering resilience within the population and contributing to reducing inequalities in health

Ability to source **surge** rapidly and step down according to circumstances

International models I Options for public health functions and services

Public Health System Model	Benefits	Risks	Comments
National agency integrated with regional delivery functions but no local footprint. Local delivery undertaken by local government with regional institute support In practice: **This model is closest to the current UK but no examples of health protection teams as we know them. Rapid support/field epi are in evidence .**	• Regional tier enables greater oversight and integration with the local delivery tier, including closer support for emerging outbreak threats • Regional tier enables consistency of delivery and data • Regional tier seen as crucial to building relationships and securing partnerships • HSA is now closer to national government so regional level is essential understanding local activity	• Ensuring there is clarity of roles and responsibilities within a system with more than one deliverer at place • Needs skills and capacity to deliver and all have increased this recently • Provides specialist functions but not surge • Need to guard against regional variability	Korea actively instituted a regional tier to allow greater integration between the national infrastructure and local government teams France is highly regionalised, gets good intelligence via the regional route. Free of local politics, which can obfuscate bad news. 
National agency with regional enabling functions, agency could have liaison, exercising, training and relationship role in regions. Place based delivery undertaken by local government In practice: **This model has some national resonance with the UK but weaker regional comparisons.**	• Concentration of scientific expertise within a single organisation and focus on guidance, surveillance, and scientific laboratory services mainly • Regional liaison, even limited, seen as crucial to building relationships and securing partnerships • Focus on academic research allows greater influence of cutting edge knowledge into policy development	• Lack of oversight and accountability of local health protection can lead to increased variation in delivery, poor data flows and ability to analyse data for national level insights • Challenge in influencing public health delivery without clear mechanisms/levers, relies heavily on relationship development • Relies on local willingness to act and invest • Requires significant local infrastructure and policy control to enact	Internationally this model is built on the established federalised political infrastructure in place. Developing this model would likely involve significant restructuring and as such would be challenging to implement. This model may require development of certain regional functions. All interviewed cited lack of local intelligence as problematic 
National agency with local delivery functions (mainly enabling) and no regional role. This model has no public health professionals beyond the national agency which is integral with the Ministry and depends on local clinicians to deliver. In practice: **The model is predominantly national, using the local equivalent of the NHS to deliver**	• Direct accountability and oversight of health security delivery within organisational structure • Services provided from outside of a public health system. So dependent on the equivalent of the NHS, which might be better used in future	• Greater integration with national institute may weaken relationships with broader health and social care partners • Not clear how this model would operate in a large geography, nor via established place based public health systems.	The Singapore model is in part contingent upon the island city-state structure and small population size. Potential risk in applying directly to larger system, the small population size and geography means no local government system as understood in the UK. 

Proposal I What is the value added of the sub national tier of UKHSA?

Function	Value Added
Provide the **core specialist health protection delivery functions** of the UKHSA at place	Regional level has a key specialist health protection leadership function.
Support the DPHs at a local level in response to an **outbreak** in their locality	Clarity of partnerships and leadership within the wider system
Network of regions can act as **interface between national and local**, identified in international models as crucial for consistency across the country, and provides specialist expertise in data analysis and interpretation close to place focused need.	Facilitates consistency of delivery & data, and shared learning across health protection geographies
Collaborate with wider health, social care and organisational partners to ensure **coordinated prevention and response to health security threats**, which is identified as difficult to coordinate at a local level	Regional partnerships, communications and inter-agency trust enabling UKHSA to translate policy to practice, fostering resilience within the population and contributing to reducing inequalities in health
Clearly defined role of **Public Health commissioning** (from system partners e.g. IPC community nursing commissioning with contracts for surge contact tracing staffing)	Enables the delivery of priority outcomes at place, particularly in areas previously identified as challenging. Supports the provision of additional surge capacity
Act as an **early warning system** for the national team for “on the ground” threats – international interviews identified that this is difficult at a purely local government level due to the conflicts of interest in managing local incidents	Enables a clear line of sight to the centre and national collation of data
Integration with academia – identified as a key area with international comparators – close working between research and delivery	Allows early identification and integration of learning into policy development and ensures research undertaken is translational/public health delivery is evidence based
Training of UKHSA and wider public health partners – ensuring UKHSA has a learning culture, with preparedness of place focused workforce for future health threats	Emergency preparedness training of all members of the workforce for capacity

Proposal I National agency with a regional delivery footprint

An integrated national and regional system for health protection delivery at place; building on a system that is valued, utilising collaboration and connectivity to protect local populations against threats to health.

Proposal

- Integrated national and regional model with clearly defined responsibilities between health protection teams, local government and NHS partners.
- Regional model operating within the wider system including regional directors of public health, ICSs incorporating primary care and the wider NHS. Funding and commissioning in place to support the added "peacetime" public health capacity provided by local government and NHS.
- Pan-regional networks (data, people, labs, learning) to facilitate consistency, provision, and multi-directional reach.
- Integration of operational research and health protection delivery at place (internationally used to identify operations that need to change - such as requirement for supported isolation and pre-symptomatic spread)
- Agreements in place with providers and partners for 'call up' for national incidents with added capacity

.

Co Design

- Public Health Roundtable
- Consensus Statement
- System Development

All Hazards Health Protection System – a regional perspective

An All Hazards approach to health protection

- ‘All Hazard’ acknowledges hazards vary in source, but often challenge health systems in similar ways. Risk reduction, emergency preparedness, response actions, and community recovery activities are usually implemented along the same model, regardless of the cause (WHO). Therefore plan these collaboratively.

Figure 1: All-hazards approach maximizes available resources.

- Infectious diseases and hazards are not static. The potential threats to health are diverse, evolve and include:
  - the threat of new or previously unrecognised diseases,
  - Evolving environmental threats
  - the threat of animal diseases that can transmit to humans,
  - the threat from poor hygiene,
  - poor infection prevention and disease control measures or poor standards of medical care
- A number of major crises have been a consequence of infectious diseases (e.g. BSE and vCJD, foot and mouth disease, large scale measles outbreaks, Ebola, NHS winter pressures from influenza and bronchitis, Swine flu, Covid-19……)

Regional Delivery of All Hazards Approach

- Mutually beneficial partnerships within a robust and effective health protection system, which supports local systems to reduce burden of ill-health/disease, support people to work and learn, support individuals to care for themselves and others
- A culture of collective responsibility and leadership to protect the public's health, promoting clear but system-wide shared accountability and assurance for protecting the health of local communities, mobilising and connecting the wider public health workforce and collective resources
- Some of the organisational role & responsibilities are prescribed in legislation, many are agreed at a local level between key partners to enable and ensure effective health protection delivery. Governance structures and accountability arrangements should be constructed from existing collaborative arrangements.

- A primary focus to prevent, assess and mitigate risks and threats to human health arising from communicable diseases and exposure to environmental hazards – including vaccination, training, education, advice, addressing inequalities as well as control measures
- Locally, the UKHSA primary relationship is with the Local Authority and local NHS, coordinated with and/or operating alongside the Health Protection Team.
- Local Health Resilience Partnerships (LHRP), co-chaired by a DPH and NHS England, provide a strategic forum for organisations to facilitate health sector preparedness and planning for system-wide health protection work and emergencies, working closely with Local Resilience Forums (LRF).
- Recognition of background of significant change across organisations and systems, with varying timescales

Overview of the HPT function

- Acute Response Service: Investigation, risk assessment and advice with regards to cases of infectious disease, management/coordination of community incidents and outbreaks; 24/7 advice and support
- Support surveillance, epidemiological studies & health protection Intelligence
- Programmes for key priorities, prevention, addressing health inequalities, etc
- Emergency Preparedness Resilience & Response (EPRR)
- Local Partnerships and engagement
- Contributing to, and influencing UKHSA strategy and activities and other internal work streams, including national action plans
- Gateway to specialist expertise such as the Radiation, Chemical and Environmental Hazards (RCE), Field Service epidemiologists and laboratory network
- Teaching, Training & Research and Development
- Service Governance

Ambition for an all hazards system

- Professional/political appetite to move beyond assurance to identify the gaps in the systems and ways to address these
- Addressing key challenges: limitations in data-sharing and system access; community infection prevention & control (IPC) & provision of prophylactic medication/immunisation in response
- Commitment of collaboration building on past two years; jointly monitored between UKHSA, Local Government and the NHS to enable robust system working with clarity of agency accountabilities/responsibilities.
- Build on increased public and professional knowledge of prevention and reducing risk, and identify ways to continued to increase health protection knowledge and skills
- Developing HP in ICS/ICB Structures with shared priorities and objectives

Some initial next steps

- Work with local health protection systems to identify priority areas for collaborative working, assess and improve quality in health protection services
- Agreeing MOUs with WM LAs and develop overall HP Strategy and Core Offer – building on opportunity of Commonwealth Games
- Agree strategic objectives across WM to support regional priorities eg complex TB situations, community IPC and increase vaccine uptake
- Strengthen links between health protection system and public and voluntary sector organisations including those working with high risk or vulnerable groups, e.g. homelessness services and drug and alcohol services
- Ensure LHRP, with its health protection assurance function, has clarity of responsibility and a written plans in place for the management and governance of local outbreaks and incidents

Next Steps