Introduction

Exercise Cygnus was a command post exercise delivered by Public Health England on behalf of the Department of Health. This was part of the Public Health England funded programme directed by the Emergency Preparedness, Resilience and Response Partnership Group chaired by the Department of Health.

The exercise was designed to assess the United Kingdom's preparedness and response to a pandemic influenza outbreak. It was aimed at responders in Local Resilience Forums, NHS England and Public Health England at local, regional and national level, the Department of Health and other government departments, the Health Departments of Scotland, Wales and Northern Ireland and NHS Wales. This report identifies lessons relevant to all of the participating organisations and is not restricted to lessons reflecting only the experience of health organisations.

The lessons identified in the report are not therefore necessarily PHE's corporate position; they are evidenced on the information gathered during the exercise and interpreted in the context of the Emergency Response Department's experience and judgement. It is suggested that the lessons identified are reviewed by the appropriate organisations to assess if any further action is appropriate.



Director for Health Protection & Medical Director Public Health England

13 July 2017

2016 a further two meetings took place: a COBR(O) in the morning and a COBR(M), chaired by the Minister for the Cabinet Office, in the afternoon.

Planning for Exercise Cygnus started in 2014 and was postponed due to the Ebola response. This report covers activities undertaken from the recommencement of planning in December 2015 to the delivery of Exercise Cygnus in October 2016. During this time some participating organisations undertook separate workshops and exercises to prepare for Exercise Cygnus. As part of the build up to Exercise Cygnus a national-level table-top exercise called Exercise Cygnet was run to help the Department of Health, NHS England and Public Health England prepare for the exercise. These activities informed the development and learning captured as part of the exercise.

Key Learning

The analysis of the evaluation reports from the organisations participating in the exercise indicate that the UK's command & control and emergency response structures provide a sound basis for the response to pandemic influenza. However, the UK's preparedness and response, in terms of its plans, policies and capability, is currently not sufficient to cope with the extreme demands of a severe pandemic that will have a nation-wide impact across all sectors. Exercise Cygnus demonstrated four key learning outcomes for the UK's preparedness and response capabilities, which are supported by 22 detailed lessons against the eight Exercise Objectives. Consideration should be given to reviewing the UK's Influenza Preparedness Strategy 2011 and individual government department pandemic influenza plans in the light of these findings.

Preparedness

1. The development of a Pandemic Concept of Operations would increase understanding of the UK's Pandemic Influenza Response. (Lessons identified: 1,2,3,4,10,12,13,17,21 and 22)

Exercise Cygnus emphasised the potential wide ranging impact of pandemic influenza. The complexity of the response and the importance of cross-government and multi-agency joint working were highlighted by all of the participating organisations.

Consideration should be given to the development of an overarching pandemic influenza concept of operations, which would assist with the operationalisation of the response at a strategic and tactical level by describing the role of organisations in the pandemic influenza response, how those organisations interact and provide key guidance and plans for each of the response elements. Because the preparedness and response to an influenza pandemic covers multiple sectors and functions, a central repository of this information and overview of the entire response is required. Feedback from the planning and conduct of the exercise shows evidence of silo planning between and within some organisations and a lack of understanding about the potential impacts of a pandemic in which 50% of the population may be affected. The UK's plan for responding to a pandemic is contained in a wide variety of documents brought together by the Department of Health's UK Influenza Pandemic Preparedness Strategy 2011. This Strategy is published alongside at least eight other

A.1.2 The link between the local and national levels during the response

The current concept of operations provides responders with a robust framework through which to enact an effective response. However, evidence from Exercise Cygnus indicates that during a reasonable worst case influenza pandemic it is likely that responders will struggle to maintain a response using the existing framework.

LESSON IDENTIFIED 3: National level planning which considers the operationalisation of local level pandemic flu plans should be undertaken.

Indications from Exercise Cygnus are that Pandemic Influenza planning in the UK is based around national strategic documents which inform plans developed by individual organisations, Local Health Resilience Partnerships (LHRPs) and LRFs. However, the lack of joint tactical level plans was evidenced when the scenario demand for services outstripped the capacity of local responders, in the areas of health surge planning, excess deaths and provision of social care. The lack of centrally produced advice to local authorities on excess deaths and body management was considered a major issue by local responders who also raised concerns about the expectation that the social care system would be able to provide the level of support needed if the NHS implemented its proposed reverse triage plans.

"It is believed, following the exercise, that LRFs would have difficulty operating their plans and capabilities at this scale [of response]. The coordination of resources at the national level may be required in some scenarios."
"More focus and coordination on pan flu preparedness [is] needed nationally, departmentally and within Resilience and Emergencies Division Operations Centre itself".
"Given the pressures on dealing with excess deaths there should be central policy guidance provided on the use of body holding arrangements being developed, including communications and body transportation where local capacity is exceeded."

A.1.3 The Four Nations response

LESSON IDENTIFIED 4: Meetings of the four health ministers and CMOs should be considered best practice and included as part of the response 'battle rhythm'.

There was an indication throughout the exercise that each of the countries of the UK should, where possible, enact the same responses within similar timeframes. This would be facilitated by DH hosting meetings of the four Chief Medical Officers (CMOs) and a Health Tri-partite (DH, NHS England and PHE) meeting, to which the Devolved Administrations should be invited in preparation for each of the anticipated COBR meetings. The use of these meetings should be considered best practice and be continued and would build on existing strong cooperation between the Administrations; however, due to exercise limitations the Devolved Administrations were not invited to attend and this was an oversight.

"DH, NHS England and Public Health England held a Health Tripartite Meeting before each COBR(O) or COBR(M). These sessions allowed the senior officials, supported by their respective incident management teams, to gain a full understanding of the current situation and the response prior to

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Annex C - Exercise Planning

1 Aim and Objectives

1.1 Aim

Exercise Cygnus is to assess preparedness and response to an influenza pandemic in the United Kingdom.

1.2 Objectives

- 1. To exercise organisational pandemic influenza plans at local and national levels in the United Kingdom
- 2. To exercise coordination of messaging to the public
- 3. To exercise strategic decision-making processes around managing the wider consequences and cross-government issues at both local and national levels during an influenza pandemic
- 4. To exercise the provision of scientific advice, including SAGE
- 5. To explore the social care policy implications
- 6. To explore the use of the 3rd sector to support the response
- 7. To exercise the coordination of resources to cope with excess deaths in the community
- 8. To identify issues raised around the impact of influenza in the prison population

1.3 Additional Objectives

The participating organisations were invited to consider additional objectives which they would use Exercise Cygnus to address. The report does not consider these objectives specifically except where they contribute to learning at the tactical and strategic level. For reference they are contained at **Appendix 1**.

Scenario

2.1 Scenario outline

Exercise Cygnus was set in week seven of the UK's response to a pandemic influenza. The scenario was designed to encourage participants to examine their response and capacity at the peak of the pandemic. The response to an influenza pandemic is divided into five phases: Detection, Assessment, Treatment, Escalation and Recovery. Exercise Cygnus focussed on the Treatment and Escalation phases of the pandemic response. During these stages the emphasis is on considering the enhancement of public health measures to disrupt transmission and the escalation of surge management and triage of service delivery in order to maintain essential services¹⁷. At this point of the pandemic response modelling had been produced indicating that the scale of the pandemic could be close to the government's worst case planning scenarios.

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¹⁷ UK Influenza Pandemic Preparedness Strategy 2011