



Exercise Black Swan

Thursday 15th October 2015

Exercise Report



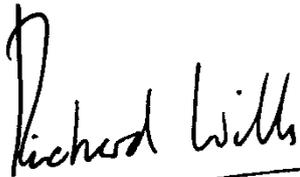


FORWARD

Exercise Black Swan gave us an excellent opportunity to thoroughly test both our multi-agency, and individual organisational plans for dealing with an influenza pandemic. With attendance from many organisations within the Lincolnshire Resilience Forum, the discussions reiterated the fact that pandemic influenza is not just a health and social care emergency, and that the implications would be felt across all organisations both locally and nationally.

The exercise has provided a wealth of learning for individual organisations and the LRF as a whole which has been captured throughout this report and summarised in the recommendations table found in Appendix D. The aim of this report is to demonstrate a clear link between the lessons learnt from Exercise Black Swan, and changes to our plans and procedures moving forward.

I would like to thank all those involved in Exercise Black Swan, and hope you all have gained a better understanding of your roles and those of your organisation in the event of an influenza pandemic. Undertaking these exercises can only ensure that we are better prepared to deal with the consequences of such an incident.



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Executive Summary

Exercise Black Swan was Lincolnshire Local Resilience Forum's (LRF) annual multi-agency exercise held on October 15th 2015. The exercise was designed and delivered by a multi-agency planning team, led by a representative from Lincolnshire County Council's Public Health Directorate. The exercise focussed on the multi-agency planning and response to a severe pandemic of influenza, presenting a developing scenario throughout the day. As the number of cases within the County increased, so did the demand for resources across all organisations taking part in the exercise. Participants were asked to identify how they would respond whilst ensuring the continuation of essential services in the County.

This report covers all aspects of the exercise, from the planning through to delivery and evaluation. It presents the key findings gleaned from testing the Multi-Agency Pandemic Influenza Contingency Framework (The LRF Framework), the multi-agency command functions and from the tactical support cells. It also highlights the strengths identified during the exercise, as well as areas for improvement. The report does not identify lessons to be learned from individual organisations unless these impact on the multi-agency response as a whole.

Clear aims and objectives were set for the exercise and these can be found in section 3 of the report. The exercise achieved these aims and objectives and delivers an assurance opinion of 'some improvement needed' on the preparedness of the multi-agency response to a pandemic influenza incident within Lincolnshire. A full breakdown of the Assurance Definitions can be found in Appendix B.

The exercise highlighted that the Multi-Agency Pandemic Influenza Contingency Framework currently sits as a strategic document, therefore lacking in tactical options for consideration by either the Strategic Coordinating Group (SCG) or the Tactical Coordinating Group (TCG) and specialist support cells. Specifically the LRF Framework does not offer tactical considerations which will be required when developing the tactical plan for dealing with an incident. A key recommendation from the exercise is to review the entire document ensuring it sits within the LRF suite of plans fulfilling its purpose as a tactical plan.

Despite this, the response to the scenario was robust, addressing not only the health and social care needs but fully considering the wider consequences associated with a pandemic. In fact many of the conversations throughout the day will greatly assist in the population of the reviewed framework. A full list of the recommendations generated from the exercise and subsequent evaluation can be found in Appendix D.



1. Introduction

A new influenza pandemic continues to be recognised as one of the six Tier 1 risks to the United Kingdom in the National Security Strategy and Strategic Defence and Security Review 2015¹. Within Lincolnshire the risk also sits on the Community Risk Register (CRR) as one of the nine enduring risks faced by the County.

The World Health Organisation (WHO) defines a pandemic as *"the worldwide spread of a new disease"*. This will occur when a distinctly different strain of the influenza virus will emerge with most people not having any immunity. The virus then spreads rapidly across the world causing an influenza pandemic. In the event of such an incident, large numbers of the population may become infected with varying degrees of symptoms. The pandemic may result in severe illness and mortality in certain age or patient groups, and has the ability to significantly impact not only the health and social care services, but the normal functioning of society as a whole.

As such, and following on from the cancellation of Exercise Cygnus, (a national exercise commissioned by the Cabinet Office (CO) due to take place in October 2014, of which Lincolnshire was one of 11 Local Resilience Forums selected to participate), the LRF agreed to support the delivery of a pandemic influenza exercise as the focus of the multi-agency major exercise in 2015. This report outlines all aspects of Exercise Black Swan, and details observations and lessons identified from the exercise. A summary of all the recommendations can be found in Appendix D.

Exercise Black Swan was a one day command post exercise (CPX) held on Thursday 15th October 2015 with a focus on the multi-agency response to a severe influenza pandemic in Lincolnshire. The exercise allowed participants to explore the response to the scenario within the LRF command structure and acknowledged the regional and national implications of such an incident. The exercise also provided an opportunity to test the LRF Multi-Agency Pandemic Influenza Contingency Framework (The LRF Framework).² This document was re-written to reflect the changes since the introduction of the Health and Social Care Act 2012, and to ensure that the local response is in line with the national response as identified in the UK Influenza Pandemic Preparedness Strategy 2011³. The framework was approved by the Programme Management Board (PMB) on 21st July 2014.

The exercise was supported by a multi-agency planning team, and on the day, a pre-identified exercise control team. Further, it provided an opportunity for multi-agency strategic and tactical commanders to interact with other agencies, and gain an overview of other organisations pandemic influenza plans.

¹ The National Security Strategy and Strategic Defence and Security Review 2015 can be found at: <https://www.gov.uk/government/publications/national-security-strategy-and-strategic-defence-and-security-review-2015>

² Lincolnshire's LRF Multi-Agency Pandemic Influenza Contingency Framework can be found on Resilience Direct in the All Hazards Plan at: <https://www.resilience.gov.uk/RDSservice/home/1558/07.-Plans>

³ The UK Influenza Preparedness Strategy 2011 can be found at: <https://www.gov.uk/guidance/pandemic-flu#uk-influenza-pandemic-preparedness-strategy-2011>



2. Scenario

The scenario focussed on the management of a new subtype of the Influenza- A virus (H2N2). The fictional virus was identified in Thailand by the Centres for Disease Control and Prevention (CDC) in the months of June and July 2015. The virus had a clinical attack rate (CAR) in the region of 35% with a case fatality rate (CFR) of 1.3% over the course of the pandemic. The first confirmed UK cases of the H2N2 virus were identified in travellers returning from Thailand on 31st August 2015, and this therefore activated the UK response to the situation with week 1 being identified from 31st August to 6th September 2015.

An information pack⁴ was sent to all participants two weeks in advance of the exercise containing:

- An agenda for the day
- Joining Instructions
- Participants Scene-setting manual
- SCG teleconference minutes containing the decision to stand up a multi-agency response
- Lincolnshire's communication plan
- Exercise Players List.

The participant's scene setting manual documented both the UK and the Lincolnshire response to the virus in the weeks preceding the exercise. The decision to supply the exercise participants with this detailed information was deliberate, recognising that in a real pandemic influenza situation key responders would have been following the progression of the virus internationally, nationally and locally prior to collectively deciding to implement a multi-agency response.

The morning session focussed on week 7 of the UK national response, and was held in real time. The impact on Lincolnshire as a County was low at this point however forecasts predicted a significant increase in numbers over the coming weeks. This allowed the morning session to focus on the business continuity aspects of the scenario, and focus on planning for the future impact on services.

The afternoon session included a 3 week time jump and was based on week 10 of the UK national response. During the time lapse, clinical cases had exponentially increased along with additional flu deaths, and equally staff absences had increased across all organisations as staff had either become unwell themselves, or were required to look after unwell dependants. Exercise participants were requested to respond to pre-scripted problems associated with this increase in numbers, whilst also identifying how to continue with 'business as usual' in the circumstances.

⁴ A copy of all the pre-read information can be found on Resilience Direct at: <https://www.resilience.gov.uk/RDService/home/61253/Exercise-Black-Swan>



3. Aim and Objectives

The exercise was commissioned by the Lincolnshire LRF, with a commitment for Exercise Black Swan to be the major multi-agency exercise for 2015 ensuring that preparatory work undertaken for the cancelled Exercise Cygnus in 2014 was maximised by the planning team.

3.1 Exercise Aim

To assess the preparedness and response to an influenza pandemic in Lincolnshire.

3.2 Exercise Objectives

- To test LRF multi-agency capability and capacity to respond to a severe influenza pandemic
- Test category 1 and 2 responders and voluntary sector business continuity planning to maintain critical functions during a severe pandemic outbreak
- To rehearse key people in strategic and tactical lead responder and multi-agency coordination roles
- Engage with health, social care and education providers in considering the impacts of resilience for a severe influenza pandemic
- Test partner communications processes (with an emphasis on learning from recent exercised and emergency responses.)

Evaluation of the exercise identified that the aim and the objectives were met. In terms of an assurance opinion on the preparedness of the multi-agency response to a pandemic influenza incident within Lincolnshire, this has been assessed at the level of 'some improvement needed'. Whilst the response to the proposed scenario was robust, demonstrating a good understanding of roles within the command structure and a good ability for partners to work together identifying solutions to the problems posed; the assurance level is unable to be high due to the fact that the LRF Multi-Agency Pandemic Influenza Contingency Framework was deemed inadequate to support the response.

To enable the LRF to gain a level of assurance against the risk, clear definitions are required. This will support the development of exercises and plans in the provision of assurance to the LRF, and provide standardisation in the evaluation process overall. The definitions found in Appendix B provide a framework for the assessment of the preparedness of the multi-agency response to a pandemic influenza incident based on current LRF supporting documents and command and control arrangements.

To ensure exercises offer a standardised assessment of assurance against the specific risk / plan they are based on, it is recommended that the assessment definitions are adopted by the LRF, along with an agreed process for evaluation of multi-agency exercises / plans.



Recommendation 1:

The LRF to design and agree a standardised exercise evaluation / reporting framework incorporating the assignment of an assurance opinion based on agreed definitions.

4. Participating Organisations

126 delegates from 22 organisations attended the exercise as either participants or facilitating staff. Participants included representatives from the following organisations:

Lincolnshire County Council, Public Health England (PHE), representatives from the Clinical Commissioning Groups (CCG) in Lincolnshire, representatives from the 3 main NHS providers in Lincolnshire, Lincolnshire Police, Lincolnshire Fire and Rescue, East Midlands Ambulance Service, British Red Cross, members from the LRF Interfaith Group, and an Assistant Coroner in Lincolnshire.

5. Exercise Format

5.1 Exercise Style

Exercise Black Swan utilised a command post exercise format to test the operational aspect of the command and control process within the Lincolnshire LRF. This included the setting up of the County Emergency Centre (CEC) and the stand up of both Strategic and Tactical Co-ordinating Groups along with pre-identified tactical support cells.

This format was chosen for the exercise to ensure strategic and tactical commanders across organisations within the LRF were given the opportunity to not only test the pandemic influenza plan and the process for managing such an incident, but also provided the opportunity to test their own role both within the context of their own organisation and in the multi-agency setting.

By formally setting up the CEC, the exercise also supported a practical test of equipment and facilities and allowed further tests of new processes to be undertaken, an example of this being the use of Resilience Direct (RD) during a live incident.

In addition to the main body of the exercise, a separate Lincolnshire County Council (LCC) internal Business Continuity (BC) exercise was being run concurrently with the morning session using the same scenario. This exercise, whilst closely linked will be reported on separately.

Lincolnshire Fire and Rescue also activated their Fire Silver Cell to further test their pandemic influenza plans. A full report including their findings and any recommendations will be generated by Lincolnshire Fire and Rescue.



In addition to the Fire Silver Cell, Lincolnshire Fire and Rescue were represented in the multi-agency response at the Strategic and Tactical levels, and in the information cell, and the feedback generated has been included throughout this report.

5.2 Command Support Functions

To provide support to the SCG and TCG, the LRF in Lincolnshire has adopted the model of multi-agency specialist / tactical support cells. The objectives and representation within these cells will be dependent on the type and scale of the emergency.

For the scenario used in Exercise Black Swan, the following cells were activated:

- Outbreak Control Team
- Health and Social Care Cell
- Warning and Informing Cell
- Community Resilience Cell
- Excess Deaths Cell
- Information Cell
- Fire Silver Cell

These cells were populated by exercise participants, each performing a role relevant to their organisation that, in the event of an influenza pandemic, would support the County wide response to the incident. The exercise planning group identified leads for each cell with a specialist knowledge of the role that the cell would perform. These leads then ensured that each cell was populated appropriately to undertake the relevant functions. To facilitate this process, artificial SCG minutes were produced, during which the decision for the activation of the CEC was agreed along with the set-up of the relevant cells.

5.3 Exercise Timeframe and phases

To maximise the learning potential from the exercise, and to support the achievement of the exercise aim and objectives, three distinct phases were utilised.

Firstly, the pre-exercise phase commenced when the first cases of the virus were identified in Thailand in the months of June and July 2015 through to 14th October 2015, the day prior to the exercise. The planning team, recognising the importance of all exercise participants attending the day fully prepared, produced a comprehensive participant manual detailing the key events and the international, national and local decisions thus developing a timeline for the management of the incident. This allowed the exercise delegates to arrive and focus on the issues presented in the exercise, with some of the pre-work completed in advance.

The second phase took place in the morning session of the exercise and took was based in real time on the morning of the 15th October 2015. At this point the UK was in the seventh week of the national response, and numbers were beginning to rise putting some strain on services. Within Lincolnshire the first cases of the virus had been identified two weeks previously and numbers were still low in the County. The rationale for this timeframe is that the virus had been in the Country for enough time to allow for some modelling to take place, and some early predictions of the trend of



the virus could be given. This allowed the exercise to focus on the business continuity aspects of an influenza pandemic and to identify organisationally and collectively critical functions within the County and the resources required to maintain these.

The final phase was run in the afternoon of the exercise, and included a three week time jump. Fictionally exercise players were informed that they were now in the week commencing the 2nd November. By moving the scenario on three weeks, participants were able to focus on the pre-identified worst week in the pandemic. It allowed exercise participants to gain an understanding of the level of demand that would come with a pandemic over a protracted period of time with ever reducing resources.

5.4 Exercise artificialities

Exercise artificialities are inevitable in any exercise, and this was noted during both the planning and delivery of Exercise Black Swan.

The scenario focussed on a virus with an expectation of an initial 15 week wave. It is acknowledged that should a pandemic influenza incident occur, response arrangements would mirror that of the virus with both preparatory work commencing prior to the first cases of the virus entering the County, and recovery work continuing until services were returned to 'business as usual'. Exercise participants were asked to consider the entirety of the 15 week wave during a one day event which at times caused confusion.

It was also acknowledged that some decisions would have been made in advance of the 15th October 2015, and that by week 7 of the UK response, plans would be in place. However to ensure that delegates gained the most from the exercise, many of these key decisions were omitted from the preparation work allowing for discussions to take place during the exercise.

With a pandemic influenza incident impacting all areas of the Country, the planning team recognised that a national approach to the response would occur. Exercise Black Swan was Lincolnshire focussed, and whilst referenced the regional and national implications, the lack of this input was impactful on the delivery.

Where possible the afore mentioned constraints have been taken into account during the evaluation of the exercise and the generation of this report.

5.5 Exercise Risks

The delivery of any exercise contains a degree of risk, and Exercise Black Swan is no exception.

During the planning of the exercise, two risks were identified, the emergence of a real incident in the County, and a failure to apply learning from the exercise to future planning and response work in the County.



Organisations within the LRF in Lincolnshire horizon scan continuously to identify any new or emerging risks to the County, and equally to ensure that mitigations in place for existing and known risks are sufficient. In the event that a collective response is required, tried and tested processes are in place to ensure an appropriate response.

The planning of the exercise included appointing an Exercise Director. The Exercise Director is a senior member of the LRF, and in the event that the exercise required cancellation prior to the 15th October, or at any point during the day itself would, in consultation with the Exercise Control Team, take the decision to call a 'no duff' and cancel the exercise. Participants were made aware of these arrangements in advance of the exercise, and they were reiterated in the introductory sessions at the start of the day.

To ensure that maximum learning has been gained from the exercise, a full evaluation has taken place. This report is the result of the evaluation and contains a comprehensive review of both the exercise planning, and the relevant learning opportunities that were highlighted during the day. To ensure that this learning is applied to future exercises and incidents, a full list of recommendations has been compiled and can be found in Appendix D. This report will be presented to both PMB and the LRF, and due to the strong health and social care element of the exercise will also be taken to the Local Health Resilience Partnership (LHRP). Management of the recommendations will be through the PMB with escalation as required to the LRF.

Any exercise requires the commitment of organisations to ensure appropriate staff will be released from work commitments enabling participation in the exercise, and the success of this has been demonstrated by a high turnout of from 22 organisations within Lincolnshire. However it needs to be noted that in the week preceding the exercise 21 participants withdrew from taking part in the exercise requiring the exercise team to identify replacements at short notice. Many of these were performing key roles in the exercise, and the absence of the role would have been impactful on the exercise gaining the maximum learning. It is recognised that operational pressures will always take priority over exercising, however to ensure this learning is achieved, continued commitment is required from all organisations within the LRF.

Recommendation 2:

Include 'Late Withdrawal of Exercise Participants undertaking key roles' as a standard risk to LRF Exercise Risk Assessment.



6. Exercise Evaluation

Evaluation of the exercise was conducted by gathering information through the following methods:

- Exercise Control Team:** Members of the Exercise Control Team had the opportunity to observe the exercise and ensure that play was proceeding within the boundaries of the exercise. All members of the Exercise Control Team had received a briefing prior to the 15th October 2015, and were asked to note any issues that arose during the day and ensure these were fed back to the Exercise Controller. The Exercise Control Team were also asked to complete a debrief form capturing any learning that came out of the day.
- Exercise Evaluator:** A specific evaluator was identified for the observation and analysis of the SCG against the aim and objectives of the exercise. The findings of this evaluation have been fed back to the Exercise Controller for inclusion in this report.
- Hot Debrief Sessions:** These sessions were conducted at the end of both the morning and afternoon sessions. Exercise participants were invited to discuss issues the key learning points identified from the session within the cells they had been working. One member of each cell was then asked to feed back to the group. These findings were then captured and have contributed to this report.
- Participant Feedback:** At the end of the Exercise, feedback forms were available for participants to complete. These were then collated by the Exercise Control Team and the key learning points extracted.
- Debrief Forms:** The formal debrief forms were sent out electronically to all exercise participants on the day following the exercise to allow all delegates the opportunity to feedback and inform the report. In total 64 responses were received. A copy of the debrief form can be found in Appendix B.



7. Lessons identified

7.1 Introduction

This section identifies the key observations and lessons learned from the exercise, and outlines recommendations for action as a result. A summary of the recommendations can be found in Appendix D. Following agreement, the PMB will monitor the completion of these actions by the appointed leads with the agreed timeframes.

During the planning stage of a large multi-agency exercise, many factors require consideration from the design of the exercise, ensuring appropriate population, exercise admin etc. The risk of omitting a small issue in the planning that could become impactful on the delivery of the exercise overall does exist. This could be easily resolved with the development of an Exercise Check List and associated time line which would ensure that not only are the key aim and objectives addressed, but equally the small details that ensure smooth running on the day itself.

**Recommendation 3:
Develop an Exercise Check List and associated Time Line for the delivery of LRF multi-agency exercises.**

The participating organisations in general had a clear understanding of their own response, and the expectations of the multi-agency group to respond to the incident presented to them. All participants had been sent a copy of the Multi-Agency Pandemic Influenza Contingency Framework in advance of the exercise, and in addition, copies were available on the Exercise Black Swan Resilience Direct page, with hard copies available on each cell table on the day. Delegates were also requested to have familiarised themselves with their own organisational plans for managing a pandemic influenza incident in advance of the exercise.

Evaluation of the exercise concluded that the aim and objectives have been achieved throughout the planning and delivery, and that the process generated a level of assurance for the LRF as well as clear learning points for future work.

7.2 Command and Control

For the multi-agency response to the scenario, the tried and tested command and control processes within Lincolnshire were utilised with the formal stand up of an SCG, TCG and an allocated Command Support Manager (CSM). Learning from previous incidents and exercises, the CSM left the SCG meetings after the initial briefing and any urgent business was discussed, ensuring a link between the operational cells and the SCG, and actively leading the battle rhythm of the exercise.

The exercise planning team provided pre-scripted minutes from a previous hypothetical SCG meeting for the morning session. These minutes included the strategic aims identified in the LRF's Pandemic Influenza Framework. Feedback post exercise indicated that these objectives were effective, but noted that resilience of the response was not included, and that discussions at strategic level highlighted the need to ensure appropriate consideration was given to this.

Recommendation 4:

Include resilience of the response as a strategic objective in the LRF Multi-Agency Framework and examine ways that this can be achieved i.e. via alternative working methods and ensuring a safe working environment (e.g. robust deep cleaning processes / the provision and training of appropriate PPE)

The LRF Multi-Agency Pandemic Influenza Contingency Framework clearly identifies that the SCG will be chaired by NHS England. Locally, when planning for the exercise, it became apparent that this would be difficult to implement in a pandemic situation due to the demands placed on NHS England regionally and nationally. The SCG chair role was therefore undertaken by the Director of Public Health for Lincolnshire (DPH). As co-chair of the LHRP, the relationship between the Local Authority DPH and the NHS relating to Emergency Planning, Resilience and Response (EPRR) is strong, and within Lincolnshire, the DPH is supported by a team of Public Health Consultants who would be able to provide resilience to this arrangement. It was also noted that physical attendance at SCG meetings may not always be possible from some organisations, and that remote attendance may be required in this instance to ensure the correct participants. The LRF has a protocol in place for partnership teleconferences, and this would be utilised if required.

At both strategic and tactical level, it was noted that the LRF Framework did not include tactical options for consideration. Feedback also highlighted that the LRF Framework, whilst recognising the significant impact a pandemic influenza would have on the health and social care sectors, is limited in terms of the impact on wider partners.

Recommendation 5:

Convene a task and finish group led by the LHRP operational sub-group to undertake a full review of the LRF Multi-Agency Pandemic Influenza Contingency Framework

The role of the LCC Tactical Commander was tested as part of the command and control aspect of the exercise. It is noted that in a pandemic influenza scenario, LCC would provide representatives from more than one directorate reflecting the wide range of services provided by the Council. The Tactical Commander role then becomes critical in pulling together all aspects of this work and providing the one update from LCC during TCG meetings. The role is a relatively new function undertaken in the Council, implemented as a recommendation following the Tidal Surge Response in 2013. As a result the role has yet to be tested during an incident response and those trained in undertaking the role have had limited opportunities to familiarise themselves with the realistic expectations required. It is noted that in a response situation to a 'real incident' the LCC Tactical Commander would be fully supported by a member of the LCC's Emergency Planning and Business Continuity Team, however this level of support could not be replicated during the exercise due to the team supporting the exercise control. This issue, coupled with the as yet unutilised role in an incident, resulted in a feeling of lack of clarity about what would be expected from the role. Generating an action card for the role would offer some initial direction for the commanders whilst the 'battle rhythm' of the incident became established.



**Recommendation 6:
Develop an action card for the LCC Tactical Commander for the initial stages of an incident.**

Pre-scripted minutes from ongoing SCG meetings during the time jump in the middle of the day were not provided, and delegates felt that this would have been useful in assisting the discussions in the afternoon. The decision had been made by the planning team not to provide this information, as some of the actions implemented in the morning session could impact on the discussions held in the afternoon, and this could not be foreseen. Thus a broad overview of the scenario was provided allowing for issues identified in the morning to be followed through if required.

The balancing act between providing too much information in an exercise and therefore constraining conversations, and too little information thus impeding clarity for the group is a difficult one to manage, and, when exercising a 15 week scenario in one day, artificialities will emerge. On reflection, the exercise may have benefited from concentrating on the one time period, allowing for detailed discussions to arise on the potential management over the coming weeks.

Feedback from the Exercise Evaluator identified that the SCG benefited from the wide range of organisations represented to ensure a good overview of the situation within the County was achieved. It was also highlighted that the meetings were managed at a strategic level, and when tactical discussions ensued, the meetings were brought back to a strategic level ensuring effective management and decision making.

It was noted that the TCG meetings did not follow a structured agenda, and that this may have hindered the generation of the tactical plan in the morning aspect of the exercise. The LRF Multi Agency Coordination Aide Mémoire contains a standing agenda for the SCG, and whilst it is recognised that this will be adapted to ensure it is fit for purpose for the incident requiring a response, it does provide a framework to check that key issues are addressed. It would be of benefit to include a draft TCG agenda in the Aide Mémoire for the initial meeting.

**Recommendation 7:
Include a draft TCG agenda in the LRF Multi Agency Coordination Aide Mémoire.**

The introduction of a second formal strategic meeting in both the morning and afternoon sessions was made by the SCG to enable the group to receive a tactical update from the TCG and supporting cells. Due to tight timeframes, work on the tactical plan was limited, however the SCG felt that formalising the actions both undertaken, and in the process of being undertaken to support the incident strategy was effective, and provided focus for the tactical group.

The TCG in the afternoon presented the SCG with a formal tactical plan with clear identified actions against each strategic objectives. This was well received, and identified as an area of good practice.



Recommendation 8: Develop a template for the tactical plan based on strategic objectives for delivery to the SCG.

To ensure the training opportunity is maximised, exercises can attract a high number of delegates, and Exercise Black Swan was no exception. On a positive note, this raises the profile of one of the largest civil protection risks faced by the Country, and ensures strategic and tactical commanders are better prepared to respond if required, however it can make for a challenging working environment in the CEC. This was mitigated by ensuring cells with large numbers were housed in smaller rooms outside the main room (Lecture Room 1), which in turn can lead to a feeling of isolation from these cells, and these points of noise and isolation were highlighted in the feedback forms.

There are no easy solutions to the above raised points, however it is worth noting that the number of attendees in the CEC during an incident tends to be significantly lower than during exercises, and it is important to ensure that exercises do not create unrealistic expectations of the perceived work environment during a multi-agency response.

Communications between the SCG, TCG and tactical cells was identified as an area for improvement. This was particularly highlighted by the cells housed out of the main room (Lecture Room 1). It is noted that due to the artificiality of the exercise there was limited time between the strategic and tactical meetings, and therefore time for feedback to the tactical cells post meetings was reduced. It is recognised that the battle rhythm during a live pandemic influenza incident would be significantly different allowing for more interaction between responders. It is worth noting that some of the work carried out within the CEC however would be managed remotely thus highlighting the need for robust communication between the cells to be in place. Multi-Agency exercises and training opportunities continue to offer good opportunities for networking with colleagues from partner organisations who may be involved in a multi-agency responders and better understanding the roles and responsibilities of all responders.

The registration process for attendees in the CEC was tested for the first time in large numbers, and demonstrated the benefit of formally capturing the details of those arriving in the centre. It was noted that the booking in process was lengthy, in particular at the start of the exercise with delegates arriving in large numbers, however this process allows for more efficient centre management during exercises and incidents, and facilitates both health and safety and staff welfare arrangements.

7.3 Health and Social Care Cell

The health and social care cell included representation from the key providers of NHS funded services in Lincolnshire, Adult care and infection prevention from LCC and representatives from Nottinghamshire Foundation Trust representing prison health in HMP Lincoln. As such the cell became the largest in the response. Whilst this was useful due to the level of knowledge and expertise from the relevant organisations, it was noted that at times working in this cell was difficult with the level of noise being cited as a factor.



Due to the size of the group, the health and social care cell were situated in a stand-alone room, and this identified some silo working within the cells. An example of this being that initially the cell was unaware that a representative from the education service was situated on the Community Resilience Cell, and some links between the two groups took time to be established. Whilst taking into account the artificiality of the exercise process, and the limited time available to address the scenario, this could still be an issue replicated during a live incident and it is of equal worth to highlight that in a pandemic influenza incident, alternative methods of working may be explored to facilitate the resilience of the response. Communication therefore needs to be robust. Ensuring each cell's aims and objectives, along with a cell member list are made available to all responding to the incident will improve communication.

The group noted the need to ensure all relevant partners were included in the response, identifying NSL, and 111 as key partners for involvement due to the roles they would play in a real scenario. Ensuring that independent providers of social care are also informed and involved in the process was highlighted, along with the suggestion that the Lincolnshire Care Association (LinCA) is involved in the planning process.

Recommendation 9:
Ensure LinCA is included in the consultation of the LRF multi-agency framework post review.

As the scenario progressed, the importance of deploying resources to support critical services in the health and social care sector increased. Discussions ensued about cross organisational working and how this could be achieved. It was gleaned that Lincolnshire Partnership Foundation NHS Trust (LPFT) were able to easily identify how many dual trained nurses would be available to support the response, but it was noted that information on the registered workforce in LCC (including nurses, doctors, pharmacists and occupational therapists) is not easily available within the organisation. Whilst this information may not be required from a single organisational response within LCC, the exercise re-emphasized the need to respond from a multi-agency perspective, and therefore highlighted the benefits of a skills review early in the response.

Recommendation 10:
Ensure that mutual aid considerations are included as a tactical option when reviewing the LRF Multi-Agency Pandemic Influenza Contingency Framework.

7.4 Outbreak Control Team

During the planning for Exercise Cygnus in 2014, discussions were held both locally and with the national planning team with differing opinions on whether a Scientific and Technical Advice Cell (STAC) would be called in a Pandemic Influenza incident, recognising that the specific role of the STAC is to provide specialist advice to the SCG. During a Pandemic Influenza incident, this advice would be given nationally via the Scientific Advisory Group for Emergencies (SAGE) initially to the Cabinet Office Briefing Room (COBR) and then disseminated to a local level, thus potentially negating the need for a STAC. The planning team however recognised that this



potentially left a knowledge gap locally, and therefore implemented an Outbreak Control Team as a tactical cell. The role of this cell was to provide advice where required, interpret scientific information on a local level and answer any queries that may arise from external sources.

The LRF multi-agency framework identifies that during the Detection and Assessment phases of a pandemic, PHE would lead a single Outbreak Control Team across the centre area, and therefore this model was replicated at a local level. Recognising that in reality this would include remote membership from some members due to geographical constraints and pressure of workload regionally, it was agreed that there would be benefit to bringing all relevant players together to generate discussion and identify local issues that may arise.

The team worked effectively throughout the exercise, filling the gap in planning provided in the LRF Framework, and it is recommended that this model be adopted as a tactical option when the LRF Framework is reviewed.

Recommendation 11:
Ensure the LRF Multi-Agency Framework contains the stand up of a local outbreak control team as a tactical option

7.5 Warning and Informing Cell

Similarly to the Outbreak Control Team, the warning and informing cell identified that a clear strategy for communications would be in force from the start of the UK response to the pandemic led by the News Coordination Centre at a national level. This is documented in the UK Pandemic Influenza Communications Strategy 2012⁵.

It was also recognised that a local communications strategy would be discussed and requested by the SCG at the initial meeting, and therefore a Lincolnshire communications strategy closely reflecting the UK Pandemic Influenza Communications Strategy had been drafted in advance and circulated as part of the exercise pre-read information. Understanding the importance that social media now plays in any response, the role was fully embedded as part of the plan.

The cell identified the importance of establishing remote links with the communications leads in both NHS England and Public Health England early on in the exercise, to promote a good flow of information and to ensure that one single message was being disseminated.

Recognising that a pandemic influenza incident will be a health led incident, the Warning and Informing cell had strong but not exclusive representation from the Health Community. Sustainability of the health communication response was identified as a potential problem due to the small size of communications departments within each of the providers of NHS funded services.

⁵ The UK Pandemic Influenza Communications Strategy 2012 can be found at:
<https://www.gov.uk/government/publications/communications-strategy-for-uk-flu-pandemics>



To support this, and the LRF Warning and Informing response as a whole, a 'health' communications plan for use during a multi-agency response was suggested, with a focus on the undertaking of roles being competence rather than organisationally based. This will ensure that the Warning and Informing cell will always have appropriate representation from the health community.

Recommendation 12:

Develop a communications plan for the health community for use during a multi-agency response.

7.6 Community Resilience Cell

The link between the community resilience cell and the voluntary sector was explored in depth during the exercise. It was noted that the Memorandum of Understanding (MoU) between the voluntary sector and LCC on behalf of the LRF would be activated during a pandemic influenza incident, however that this MoU does not cover all organisations that might attend and assist.

The exercise identified that wider partners within the LRF were not familiar with the scope and limitations of the MoU, and as such some unrealistic expectations were identified about exactly what this would cover.

Recommendation 13:

Actively raise awareness of the capabilities of organisations who have signed up to the Voluntary Sector MoU amongst LRF partners.

Recognising the enormous benefit spontaneous volunteers would bring to the response, the question was asked with the cell about how and who would manage this aspect of the response. Following the East Coast Tidal Surge in December 2013, the 'After Action' report recommended that responsibility for the management and coordination of spontaneous volunteers be clarified, and work has been progressing on this area. A further LRF exercise 'Exercise Barnes Wallis' has since been held on Thursday 12th November and this tested the process in a simulated live scenario. The learning from this exercise will be captured in the report and disseminated amongst LRF partners providing the clarity requested.

The management of expectations from the cell would be a key piece of work that would be required at an early stage. As the scenario progressed and business continuity plans became stretched, the 'fall back' plan appeared to focus heavy reliance on the voluntary sector and 'community resilience' to support the delivery of critical services with unrealistic demands on this sector. Delegates in the cell identified that having a clear plan outlining what could be delivered by the cell early on in the response would support realistic planning of wider partners throughout the incident.



7.7 Excess Deaths Cell

With a case fatality rate of 1.3% and a clinical attack rate of 35%, the scenario presented a challenge for the management of excess deaths. Following on from Exercise Georgiana in 2013, significant work has been undertaken on the mass fatalities plan ensuring the learning gleaned from the exercise has been captured. The revised plan was utilised during Exercise Black Swan and, by working through the options available, plans to support the management of the excess deaths generated by the scenario were made.

Significantly the work undertaken with undertakers, crematoria managers and hospital mortuary staff to identify 'normal' and 'stretch' capacities provided the underlying basis for understanding the impact of the increased death rate and the available tactical options required. Identifying that 'normal' processes once enhanced and expanded through changes in working practices, could continue through the worse of the cycle as long as enhanced body storage facilities are established to hold the backlog was a key learning point from the exercise.

The pre-planning work undertaken by the mass fatalities planning team ensured that the cell was populated with appropriate members to assist in the preparation for the management of the increased death rate, and those with the ability to facilitate the operational process required. The addition of procurement representation would bring benefit to the cell, it was noted that by not having this representative in the cell, these areas were not discussed in depth.

The LRF Mass Fatalities and Excess Deaths plan provides a range of tactical options for dealing with an increase in demand for body storage when activated. The scenario allowed for these options to be discussed, with a view for identifying the most appropriate option to be put in place. Throughout the discussions, a further option was identified within the cell that would better focus on dealing with body storage issues.

Recommendation 14:

Include the additional discussed tactical body storage solution in the LRF Mass Fatalities and Excess Deaths plan.

7.8 Information Cell / Situation Report (SITREP)

In previous incidents and exercises the decision has been made to stand up a Procurement, Information, Resources and Logistics (PIRL) cell. For the purposes of the scenario used in Exercise Black Swan, many of the roles usually undertaken in this cell were naturally absorbed by other more appropriate tactical cells and therefore the PIRL cell morphed into the Information cell with the primary objective being to collate the information generated by the tactical cells and, using this information, populate the SITREP.

Exercise Black Swan offered the first opportunity to test the nationally agreed template for the SCG SITREP in Lincolnshire in either exercise or incident. The new format was agreed by the LRF and formally adopted in Lincolnshire in May 2015.



The population of this SITREP in the information cell proved problematic during the exercise due to a few factors. Firstly, as previously mentioned exercises produce artificial timelines and as such the time offered to generate this SITREP was not sufficient. This is always difficult to manage during exercises and it is recognised that the artificial time frame will have an impact on the ability to complete some tasks.

Secondly, it quickly became apparent that the information cell was not the correct platform to support the generation of the SITREP. The main source of information into the cell was from other tactical support cells, which does not reflect the reporting required in the national SITREP. Discussions during the evaluation phase of the exercise identified that the TCG would supply the relevant information required to comprehensively complete the SITREP, delivering an appropriately completed document to the SCG to form part of their overall picture of the incident within the County.

Recommendation 15:

The national SITREP adopted in Lincolnshire for the SCG is completed during the TCG meetings using the information supplied by the individual agency tactical commanders.

Leading on from this, further discussions were held regarding the most appropriate role to lead on this piece of work. The purpose of the Command Support Manager role is to ensure that all command support functions are co-ordinated, providing adequate support to SCG / TCG and Cell operations. Key to this role is to establish and maintain the 'battle rhythm' for the response, and along with the TCG commander generate the Common Operating Picture (COP). As such, having a clear understanding of the state of play from the individual agencies will ensure a good collective overview of the incident. The CSM is also required to attend all TCG meetings making ownership of the SITREP a natural part of the role.

Recommendation 16:

The function of SITREP generation is included in the Terms of Reference for the Command Support Manager role.

7.9 Resilience Direct

In addition to the new Sitrep, the LRF has agreed to adopt the use of Resilience Direct (RD) as the single information sharing platform for use during response and recovery from incidents. This policy has undergone a consultation process within the LRF and is now awaiting final sign off from the PMB.

Whilst RD has been utilised by partners for plan sharing, and meeting management, the first test of the facility during a live incident was during Exercise Black Swan. Overall, the process demonstrated the benefits that using one single platform will bring, however identified that for this to be effective, partners need to ensure that commanders responding to incidents are both signed up and trained to use RD. During Exercise Black Swan, some time was spent supporting commanders in accessing RD, and uploading documents, this increased the workload of those supporting, who equally had their own role to perform.



Recommendation 17:

The LRF supports multi-agency exercising of Resilience Direct quarterly, ensuring the system is tested regularly and familiarising users with the system.

8 Summary

Exercise Black Swan provided an excellent opportunity to provide the LRF with a level of assurance on the preparedness of the multi-agency response to a pandemic influenza incident within Lincolnshire by testing the LRF Multi-Agency Pandemic Influenza Contingency Framework, and testing the LRF command structure to a health led risk. The exercise provided participants with the chance to consider the longer term considerations associated with a pandemic influenza scenario, in particular the business continuity issues and the ability to ensure the resilience of the response. Delegates were enthusiastic throughout the response, engaging with the scenario and widening discussions where appropriate to ensure all elements were considered. Feedback from the day has been positive with delegates feeling as if it has been a useful experience and the evaluation of the exercise has demonstrated that the overall aim and objectives have been achieved.

Within the constraints of the exercise, valuable lessons have been learned. The exercise identified that further work is required on the LRF Multi-Agency Pandemic Influenza Contingency Framework to ensure that this document provides meaningful tactical options when activated, and it is recommended that a task and finish group led by the LHRP operational sub-group be set up to undertake this work. By undertaking the exercise within the County, the impact on local arrangements was explored as well as taking time to identify the critical services within the County. Recognising the national implications of a pandemic, the opportunity to interact with regional and national colleagues would have brought additional layers of learning to the LRF and this was lost with the cancellation of Exercise Cygnus.

The exercise also provided the opportunity to test the new national SITREP template, and the management of a live incident via Resilience Direct, both providing valuable learning on the integration of these processes in the overall command and control structure within the LRF. Inevitably exercise reports focus on areas where the need for improvement has been identified, however it should also be noted that Exercise Black Swan highlighted many areas of good practice within individual organisations and the multi-agency response as a whole, and this should be commended.



9 Acknowledgements

Many people contributed to both the planning and delivery of Exercise Black Swan, and the planning team would like to extend their thanks to all involved for their time and expertise. The planning team would also like to acknowledge the Exercise Cygnus national planning team from Public Health England for the use of their scientific data and scenario to assist in the planning. The ability to utilise the work undertaken in 2014 assisted greatly in the delivery of the exercise.

The success of an exercise can only be achieved with the full participation of delegates, and the planning team would like to especially thank all participants for their enthusiasm and engagement throughout the day.



Appendix A - Glossary of Terms

BC	Business Continuity
CAR	Clinical Attack Rate
CCG	Clinical Commissioning Groups
CDC	Centre for Disease Control
CEC	County Emergency Centre
CFR	Case Fatality Rate
CO	Cabinet Office
COBR	Cabinet Office Briefing Room
COP	Common Operating Picture
CPX	Command Post Exercise
CRR	Community Risk Register
CSM	Command Support Manager
DCLG	Department for Communities and Local Government
DH	Department of Health
DPH	Director of Public Health
EPRR	Emergency Planning, Resilience and Response
FCO	Foreign and Commonwealth Office
JESIP	Joint Emergency Services Interoperability Programme
LCC	Lincolnshire County Council
LCHS	Lincolnshire Community Health Service NHS Trust
LinCA	Lincolnshire Care Association
LHRP	Local Health Resilience Partnership
LPFT	Lincolnshire Partnership NHS Foundation Trust
LRF	Local Resilience Forum
MoU	Memorandum of Understanding
NCC	News Coordination Centre
OCT	Outbreak Control Team
PHE	Public Health England
PIRL	Procurement, Information, Resources and Logistics
PMB	Programme Management Board
RD	Resilience Direct
SAGE	Scientific Advisory Group for Emergencies
SCG	Strategic Coordinating Group
SITREP	Situation Report
STAC	Scientific and Technical Advice Cell
TCG	Tactical Coordinating Group
The LRF Framework	Multi-Agency Pandemic Influenza Contingency Framework
ULHT	United Lincolnshire Hospitals NHS Trust
WHO	World Health Organisation



Appendix B – Assurance Definitions

<p>Effective</p>	<p>The critical review and assessment of the risk / plan gives a high level of confidence on the multi-agency co-ordination arrangements, management of the risk, and the ability for the LRF partners in Lincolnshire to effectively respond to an incident of this nature.</p> <p>The risk of the multi-agency response to the incident not being effective is low. Controls have been evaluated as adequate, appropriate and operating effectively.</p> <p>As a guide there will be a few low risk / priority recommendations arising from the review.</p>
<p>Some improvement needed</p>	<p>The critical review and assessment of the risk / plan gives a reasonable level of confidence on the multi-agency co-ordination arrangements, management of the risk, and the ability for the LRF partners in Lincolnshire to effectively respond to an incident of this nature.</p> <p>There are some improvements required in either the specific plan / multi-agency co-ordination arrangements, however overall the controls have been evaluated as adequate, appropriate and operating sufficiently so that the risk of the multi-agency response to the incident not being effective is medium to low.</p> <p>As a guide there are low to medium risk / priority recommendations arising from the review.</p>
<p>Major improvement needed</p>	<p>The critical review and assessment of the risk / plan identified numerous concerns on multi-agency co-ordination arrangements, the management of the risk, and the ability for the LRF partners in Lincolnshire to effectively respond to an incident of this nature.</p> <p>There are significant improvements required in either the specific plan or the multi-agency co-ordination arrangements and the controls in place have not been found to be operating effectively or are inadequate. Therefore, it is unlikely that the multi-agency response to the incident will be effective.</p> <p>As a guide there are numerous medium and a few high risk priority recommendations arising from the review.</p>
<p>Inadequate</p>	<p>The critical review and assessment of the risk / plan identified significant concerns on multi-agency co-ordination arrangements, the management of the risk, and the ability for the LRF partners in Lincolnshire to effectively respond to an incident of this nature, and has identified significant concerns requiring urgent attention.</p> <p>There are either gaps in the control framework managing the key risks or the controls have been evaluated as not adequate, appropriate and are not being effectively operated. Therefore the risk of the multi-agency response to the incident not being effective is high.</p> <p>As a guide there are a large number of high risks / priority recommendations arising from the review.</p>



Appendix C – Debrief Form

EXERCISE BLACK SWAN PARTICIPANT FEEDBACK

Please use this form to comment on the exercise.

Name (optional):.....

Organisation:

1. The scenario and supporting material generated useful discussions

Strongly Agree		Agree		Disagree		Strong Disagree	
Comments:							

2. The exercise generated important issues and lessons identified

Strongly Agree		Agree		Disagree		Strong Disagree	
Comments:							

3. The exercise identified the following gaps in planning

Comments:

4. The exercise identified the following gaps in training

Comments:

5. Highlight the main learning point you have gained as a result of the exercise

Comments:

6. Any further comments

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Appendix D – Recommendations Table

No.	Recommendation	Lead for Action	Risk Priority Low/Medium/ High	Completion Date	Comments / Updates
1	Develop and agree a standardised exercise evaluation / reporting framework incorporating the assignment of an assurance opinion based on agreed definitions	LRF Exercise Group	Low	September 2016	
2	Include 'Late withdrawal of Exercise Participants undertaking key roles' as a standard risk to LRF Exercise Risk Assessment	LRF Exercise Group	Low	September 2016	
3	Develop an Exercise Check List with associated time line for the delivery of LRF Multi-agency exercises	LRF Exercise Group	Low	September 2016	
4	Include resilience of the response as a strategic objective in the LRF Multi-Agency Pandemic Influenza Contingency Framework and examine ways that this can be achieved i.e. via alternative working method and ensuring a safe working environment through robust deep cleaning process / the provision and training of appropriate PPE	Pandemic Influenza Framework Task and Finish Group	Medium	September 2016	
5	Convene a task and finish group led by the LHRP operational sub-group to undertake a full review of the LRF Multi-agency Pandemic Influenza Contingency Framework	Pandemic Influenza Framework Task and Finish Group	Medium	September 2016	



No.	Recommendation	Lead for Action	Risk Priority Low/Medium/High	Completion Date	Comments / Updates
6	Develop an action card for the LCC Tactical Commander for the initial stages of an incident	LCC Emergency Planning and Business Continuity	Medium	September 2016	
7	Include a draft TCG agenda in the LRF Multi-Agency Coordination Aide Mémoire	LCC Emergency Planning and Business Continuity	Medium	September 2016	
8	Develop a template for the tactical plan based on strategic objectives	LCC Emergency Planning and Business Continuity	Medium	September 2016	
9	Ensure LinCA is included in the consultation of the LRF Multi-Agency Pandemic Influenza Contingency Framework post re-write	Pandemic Influenza Framework Task and Finish Group	Low	September 2016	
10	Ensure mutual aid considerations are included as a tactical option when reviewing the LRF Multi-Agency Pandemic Influenza Contingency Framework	Pandemic Influenza Framework Task and Finish Group	Low	September 2016	



No.	Recommendation	Lead for Action	Risk Priority Low/Medium/High	Completion Date	Comments / Updates
11	Ensure the LRF Multi-Agency Pandemic Influenza Contingency Framework contains the stand up of a local outbreak control team as a tactical option	Pandemic Influenza Framework Task and Finish Group	Medium	September 2016	
12	Develop a communications plan for the health community for use during a multi-agency response	LHRP operational sub-group	Low	September 2016	
13	Actively raise awareness of the capabilities of organisations who have signed up to the Voluntary Sector MoU amongst LRF partners	LCC Emergency Planning and Business Continuity	Low	September 2016	
14	Include the additional discussed tactical body storage solution in the LRF Mass Fatalities and Excess Deaths plan	Mass Fatalities Planning Group	Low	September 2016	
15	Include the completion of the SITREP as an agenda item for TCG meetings	LCC Emergency Planning and Business Continuity	Low	September 2016	
16	Include the function of the SITREP generation in the Terms of Reference for the Command Support Manager role	LCC Emergency Planning and Business Continuity	Low	September 2016	



No.	Recommendation	Lead for Action	Risk Priority Low/Medium/ High	Completion Date	Comments / Updates
17	LRF partners to agree to supporting quarterly multi-agency exercising of Resilience Direct to promote familiarisation of the system	LCC Emergency Planning and Business Continuity	Low	March 2016	