

Public Health Agency

Contact Tracing Service 2020/21

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Distribution List

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Introduction

At the request of the PHA Governance and Audit Committee (GAC), Internal Audit carried out an audit of the Contact Tracing Service during February and March 2021. This is the first internal audit of this new service which was established over the course of the last year in direct response to COVID-19.

The Service

The Contact Tracing Service, which is based in County Hall in Ballymena, was set up with the aim of minimising the onward spread of COVID-19 by breaking chains of transmissions in respect of those individuals that have received a positive test result. . PHA was commissioned to provide the service but the Senior Responsible Officer (SRO) for the project was the Chief Medical Officer. As such, the service was not designed according to the usual PHA processes and given the dynamic nature of the pandemic and unknown nature of the disease progression it was necessarily responsive to events and modelling.

Positive test results are sent to PHA 6 times a day and uploaded onto a system called MS Dynamics. Contact Tracers will then use these lists from the system to make contact with the individuals affected to advise them of their required isolation period (ie 10 days); to obtain details of their close contacts over agreed periods of time and to also to offer other relevant advice, where applicable. Tracers will then make contact with the close contacts (either via text message or by telephone) and communicate their requirements in terms of self-isolation. All contact / communication with individuals affected is recorded in the MS Dynamics.

Staffing and Recruitment

For week-ending 29th September 2020, there were 1,988 positive test cases of COVID-19; by 2nd October 2020 case numbers rose to almost 1,000 per day and this increased materially over the next number of months with 11,764 positive cases in week ending 3rd January 2021. During late autumn and early winter 2020, PHA had to significantly increase staff numbers in the Centre to manage the modelled demand in cases that was expected and occurred in December 2020 and January 2021. This recruitment was largely a reactive response, to an evolving and serious public health situation. Management has advised that recruitment initially commenced against a workforce plan (July 2021) developed using evidence from the European Centre for Disease Control and local knowledge/experience. The unknown behaviour of the virus coupled with ongoing political, societal, economic influences presented (and continues to present) significant challenges in establishing a baseline from which to undertake projections. During the development of the workforce plan and establishment of the Contact Tracing Service, local surveillance and epidemiology work was evolving as a means to support both short and long term planning. Draft case projections were made available in late November 2020 estimating up to 800 cases a day in December 2020 across a high level of variance. As a means to meet the expected demand, the Centre retained and continued to build their staffing compliment, in line with modelling for winter (before lockdown measures were reintroduced). Throughout the process, weekly reviews of data on the number of cases/contacts, and trends in the numbers of tests performed were undertaken in conjunction with clinical staff in order to effectively plan workforce requirements for successive weeks.

Staff were recruited through a number of different pathways including:

- HSC Recruit – this is the traditional recruitment pathway used for the recruitment of staff across HSC, where posts were advertised on HSC Recruit website with the administration of recruitment largely managed by BSO Recruitment Shared Services Centre (BSO RSSC) on behalf of the PHA.
- HSC Workforce Appeal – the Department of Health (DoH) created the HSC Workforce Appeal to manage the urgent recruitment and deployment across a targeted range of occupations and disciplines in response to COVID-19.
- Submission of CVs – over a 2 week period in December 2020 period, individuals were able to submit CVs directly to CTC management for consideration. This process was developed to ensure the Centre had sufficient resources available to meet the surge in next cases expected in late December/ early January 2021.

As at February 2021, the Centre had a headcount of 323 contact tracers; 47 on full time contracts, 102 on part time contractors and 174 on a bank hour basis. All contact tracers work at an AFC band 6 level. The Contact Tracing Centre intentionally adopted the 'Flexible Firm Model' relying on different forms of flexibility to optimise the use of human resources with staff appointed incrementally on fixed term contracts with staff employed via bank supplementing.

Governance and oversight arrangements

In May 2020, the Chief Medical Officer (CMO) in the Department of Health (DoH) established a Test, Trace, Isolate, Support Steering Group and a Strategic Oversight Board to oversee the establishment of NI Contact Tracing Service. This was set up as a project with CMO as SRO and PHA Senior Management continue to report to the Strategic Oversight Board as well as PHA Board. In December 2020 CMO appointed a PHA Director of Contact Tracing and a Deputy was appointed in February 2021. These roles provide executive oversight within PHA in support of the Director of Public Health and Chief Executive. The PHA Chief Executive now provides an update to each PHA Board meeting as part of her Chief Executive's update; risks relevant to contacting tracing were included on the PHA Risk Register and PHA has its own Contact Tracing Risk Register. Financial expenditure incurred in respect of COVID-19, including in relation to contact tracing, has also been provided to Agency Board. The Oversight Board remains in place with key strategic decisions taken at this level.

Business case approval

The Business Case prepared by the PHA and submitted to the Department of Health (DoH) in July 2020 outlined required funding of the Service of £3.53m. The Business Case was approved in March 2021. The revenue spend to date (as at end of February) is £2.892m, and this is mostly made up of staff costs, with some accommodation costs (rent, rates, utilities etc.) and office equipment costs also included.

Scope of Assignment

The audit was based on the Contact Tracing risk, as recorded in the PHA Corporate Risk Register – failure to fully implement an appropriate Contact Tracing service, with the capacity to scale up and down, within the necessary timescale will result in an inability to control and prevent community transmission of COVID 19, leading to potentially increased deaths and a surge in activity that the HSC would not have the capacity to cope with. PHA could also potentially also face significant reputational damage.

The objectives of this audit were:

- To review the adequacy and effectiveness of established contact tracing systems – including recruitment, training and that the tracers are delivering an effective service.
- To ensure there is appropriate governance and performance management arrangements in place around contact tracing within PHA.

Limitation of Scope: The scope of this audit is within PHA only, it does not the cover DoH.

Note: We report by exception only, and where no issues and recommendations are made, the result of our work indicates that the key objectives and risks are being managed and that procedures are being adequately adhered to.

Level of Assurance

Satisfactory

Overall there is a satisfactory system of governance, risk management and control. While there may be some residual risk identified, this should not significantly impact on the achievement of system objectives.

Executive Summary

Internal Audit can provide satisfactory assurance in relation to the Contact Tracing Service. Satisfactory assurance has been provided on the basis that through sample testing, Internal Audit found that Contact Tracers were largely following the agreed process in respect of contact with positive cases and are doing so on a timely basis.

Internal Audit notes that Management had to significantly accelerate the recruitment of staff between October and December 2020 to meet the significant surge in cases in late 2020/early 2021 and have now taken action to address the reduction in cases including reducing overtime, additional hours and bank shifts. Initially recruitment was based on a workforce plan developed in July 2020, however recruitment had to be accelerated beyond this in late Autumn/early winter in advance of the surge in cases in December 2020/ January 2021. A number of the normal recruitment processes were temporarily stood

down during this time to ensure sufficient staff were available in the Centre to meet the surge, for example reduction in formal scrutiny to fill posts, reduction in the number of panel members and interviews being held by telephone. PHA worked closely with BSO Human Resources, with dedicated staff assigned to support PHA through this process. For the sample selected, Internal Audit could see that a recruitment exercise had been undertaken, albeit in reduced format, and pre-employment checks had been completed for all staff appointed. PHA also had a record, which was routinely updated, of the staff being appointed to the Contact Tracing Centre. Internal Audit found that staff recruited followed a comprehensive suite of training modules. In addition, a Quality Framework has been introduced to identify individual and wider training needs/trends by monitoring how each Contact Tracer performs on the telephone and how they contribute to the outputs of the whole service.

In terms of governance and oversight, activity of the Centre is included within the Chief Executive's monthly update to Agency Board and performance information is also reported on a daily basis on the PHA internet site. Contact tracing has been included in the PHA Risk Management process. However, there is a need to clarify the role of the PHA Board in respect of Contact Tracing, with DoH.

There are no significant findings impacting on the assurance provided.

The key findings of the audit are:

1. Responsibility for the Contact Tracing Centre in a business as usual context has not yet fully transferred from DoH to PHA, albeit that Contact Tracing staff are PHA staff and costs associated with Contact Tracing Centre are PHA costs. Senior PHA Management are reporting directly to the Department of Health on Contract Tracing as well as reporting to the PHA Board. In the interim period, the PHA Chairman should engage with DoH to ensure there is clarity over the role of PHA Board. The PHA Board should agree reporting requirements with the Chief Executive. Internal Audit recommend that KPIs should be developed, monitored and reported.
2. The recruitment of staff to the Contact Tracing Centre was initially based on a workforce plan developed in July 2020. The recruitment had to be significantly accelerated, beyond the initial workforce plan and case modelling, with the support and input of BSO HR in October to December 2020 to meet the significant surge in cases that occurred in late 2020 / early 2021. Going forward, the workforce plan should be reviewed and updated where required to reflect Contact Tracing Centre workforce needs.
3. From a review of 25 contacts made by Contact Tracers:
 - 8 (32%) were recorded as unsuccessful, meaning that contact was attempted however the individual was not reached. In 3 of these 8 cases, call attempts were not evenly spaced over 2 days (as required by the contingency plan for making contact during surge). The risk of an unsuccessful contact is increased where the attempt to contact is not spread over the 2 days period.
 - In 4 (16%) cases, the tracer did not record any details of the number of call attempts. In 3 of these, despite this, Internal Audit could see that contact had indeed been made and in other 1 case contact did not need to be made.
 - The Contact Tracer is required to manually calculate and then inform the individual of the end date of their isolation and then enter this date into MS Dynamics. Internal Audit noted 4 (29%) out of 14 instances where the Tracer had provided the incorrect isolation end date to the individual. These dates range from 1 days less to 2 days more than the date that should have been provided.
 - 3 of the 25 instances related to children from a household where an adult had also tested positive. Information recorded on MS Dynamics for these 3 cases was incomplete, as they had been recorded on the adult member's record. There is no linkage between individual cases on MS Dynamics and it is important going forward that data is fully populated for each individual case in the system. *This finding did not impact on the accuracy of number of reported cases.*
4. Whilst timesheets are verified for accuracy, written procedures are not yet in place defining the processes, roles and responsibilities of tracers and Team Leaders in the processing of timesheets. There is also a need for Management to develop procedures to confirm that rotas are efficiently managed in the Contact Tracing Centre by ensuring that substantive hours are worked before utilisation of additional hours/overtime and sessional staff.

The other findings in the report are:

5. In the 2019/20 and 2020/21 risk management audits, Internal Audit recommended that Directorate Risk Registers should, on a rotational basis, be presented at Non Executive level. This Contact Tracing

Risk Register has not yet been presented at that level. Given that this is a new service, it would be beneficial for this Risk Register to be presented at non-executive level in the near future.

6. Although a suite of standard operating procedures (SOP) has been developed, there are no SOPs for Contact Tracers to follow when conducting calls and for the Admin Team to follow when cleansing and uploading Central Registry results on to MS Dynamics.

Summary of Findings and Recommendations

Finding		Number of Recommendations		
		Priority 1	Priority 2	Priority 3
1.	Reporting to PHA Board	-	1	-
2.	Workforce Planning	-	1	-
3.	Contact Tracing Centre	-	2	-
4.	Authorisation of additional hours worked	-	1	-
5.	CTC Risk Register	-	-	1
6.	Standard Operating Procedures	-	-	1

Detailed Findings and Recommendations

1. Reporting to PHA Board

Finding

In May 2020, the Chief Medical Officer (CMO) in the Department of Health (DoH) established a Test, Trace, Isolate, Support Steering Group and a Strategic Oversight Board to oversee the establishment of NI Contact Tracing Service. This was set up as a project with CMO as SRO. This Strategic Oversight Board remains in place. PHA Management continue to report to the DoH Strategic Oversight Board on relevant matters including in respect of contingency arrangements for surge in cases that occurred in December 2020 and January 2021. This reporting included details on the steps being taken to address the surge in cases including: details of hours currently being worked in the centre at that time; recruitment that was being undertaken and ongoing to meet the surge; as well as system changes and changes in processes to be adopted by Contact Tracers to ensure delivery of service.

The PHA Chief Executive provides a high level update to each PHA Board meeting as part of her Chief Executive's update. PHA were responsible for developing the business case for the Contact Tracing Centre, staff are employees of the PHA and the Contact Tracing Centre are integrated into the governance processes in PHA (eg risk management).

Responsibility for the Contact Tracing Centre in a business as usual context has not yet fully transferred from DoH to PHA. In the interim period, the PHA Chairman should engage with DoH to ensure there is clarity over the role of PHA Board. The PHA Board should agree reporting requirements with the Chief Executive. Internal Audit recommend that KPIs should be developed, monitored and reported.

During November and December 2020, normal recruitment processes were reduced to ensure there was sufficient resource in place to meet the anticipated surge in cases at that time – this included the formal stand down of normal scrutiny process to fill posts, submission of CVs, telephone interviews and interviews conducted by 1 staff member. This recruitment process was conducted in conjunction with BSO Human Resources guidance and input. It is appropriate that the Board is kept informed of decisions of this significance going forward.

Implications

The role of the PHA Board in respect of Contact Tracing may be unclear.

Recommendation 1.1	In the interim period, the PHA Chairman should engage with DoH to ensure there is clarity over the role of PHA Board in respect of Contact Tracing. The PHA Board should agree Board reporting requirements with the Chief Executive. Internal Audit recommend that KPIs should be developed, monitored and reported.
Priority	2
Management Action	ACCEPTED
Responsible Officer	PHA Chairman
Implementation Date	31 August 2021

2. Workforce plan

Finding

The recruitment of staff to the Contact Tracing Centre was initially based on a workforce plan developed in July 2020. The recruitment had to be significantly accelerated, beyond the initial workforce plan and case modelling, with the support and input of BSO HR in October to December 2020 to meet the significant surge in cases that occurred in late 2020 / early 2021. Staff from within HSCB / PHA were also redeployed to the Centre during this time. After the surge had passed, Management took a number of actions to reflect the reduction in new cases including, for example, reducing overtime, additional hours and use of bank shifts.

Management indicated that they are currently reviewing models for future staffing needs. These models take into account the impact of the vaccine roll out, the potential impact of eased restrictions, increased testing including mass testing in schools and workplaces, new variants and vaccine escape etc.

Implications

Risk that staff compliment going forward may not be appropriate if need is not formally reviewed at an appropriate time.

Recommendation 2.1	The workforce plan should be reviewed and updated where required to reflect Contact Tracing Centre workforce needs. Management should review the staffing compliment required to deliver effective efficient Contact Tracing service going forward into 2021/22.
Priority	2
Management Action	ACCEPTED Workforce plan will be reviewed by senior management team as part of the forward look for CTC.
Responsible Officer	Deputy Director of Contact Tracing
Implementation Date	July 2021

3 Contact Tracing

Finding

During the height of the surge in positive COVID-19 cases in late December 2020 / early January 2021, the Centre moved to their contingency plans for surge in cases. During this time, tracers were required to make 3 attempts to contact the individual over a 2 day period (normally 5 attempts) with a look back of where cases had been and with whom over a 48 hour period (normally over 7 day period). Internal Audit tested a sample of 25 cases between 23 December 2020 and 10th January 2021 to ensure that tracers had correctly followed the correct process. The following was noted:

Unsuccessful contacts

- 8 of the 25 were recorded as unsuccessful, meaning that contact was attempted however the individual was not reached. In 3 (38%) of these 8 cases, call attempts were made within periods of 2, 4 and 6.5 hours and not evenly spaced over 2 days. The risk of an unsuccessful contact is increased where the attempt to contact is not spread across the 2 days period.

Audit trail to support attempts to contact

- In 4 (16%) of 25 cases, the tracer did not record any details of the number of call attempts. In 3 of these, despite this, Internal Audit could see that appropriate contact had been made as required. In the other case, it was subsequently identified that contact was not required

Manually calculating self-isolation end dates – MS Dynamics

- The contact tracer is required to manually calculate and then inform the individual of the end date of their isolation and then enter this date into MS Dynamics. Internal Audit noted 4 (29%) out of 14 applicable instances where the tracer had provided the incorrect isolation end date to the individual. These dates range from 1 days less to 2 days more than the date that should have been provided. If people are given an inaccurate end date for isolation that is shorter than the required period, this represents a risk to public health.

Full populating MS Dynamics

- 3 of the 25 instances related to children from a household where adult members of the same household had also tested positive. Information recorded on MS Dynamics for these 3 cases was incomplete however, as they had been recorded on the adult member's record. There is no linkage between individual cases on MS Dynamics and therefore it is important going forward that data is fully populated for each individual case in the system. This issue did not however impact on the accuracy of the number of cases being reported however.

Implications

There is an increased risk of further transmission of COVID-19 if contact tracers do not fully or accurately following the agreed process and controls for contact tracing.

Recommendation 3.1	Management should introduce a monitoring check, on a sample basis, to ensure that call attempts are evenly spread across the relevant period and also that times are accurately recorded in MS Dynamics.
Priority	2
Management Action	ACCEPTED
Responsible Manager	CTC leads
Implementation Date	June 2021

Recommendation 3.2	Management should improve the functionality of MS Dynamics to include an automated calculation of the 10-day isolation period and a link between household cases. If this is not possible, then: <ul style="list-style-type: none">• A regular spot check of a sample of self isolation end dates should be undertaken to ensure dates are accurate.• MS Dynamics should be fully populated for each individual case from the same household.
Priority	2
Management Action	ACCEPTED We will link with the system developer to explore this further in line with other priority developments of systems

Responsible Manager	Deputy Director of Contact Tracing
Implementation Date	July 2021

4 Authorisation of additional hours worked

Finding

During November 2020 to January 2021, 1,211 hours of overtime were worked by 41 members of staff at a cost of almost £44k. Internal Audit obtained the timesheets for a sample of 10 staff who were paid overtime between October and December 2020. 9 of the 10 staff were paid via ETM02 timesheets with 1 staff member's overtime authorised via MSS on HRPTS. Internal Audit discussed the process for approval of timesheets within the Centre and identified that Team Leaders (Band 7 level) are required to check timesheets submitted to them to the rotas for accuracy. They will also check in with their staff on a daily basis to confirm that hours on the rota are actually being delivered. Team leaders have only recently been recruited; before this timesheets were checked by the Admin Team lead.

Written procedures are not yet in place defining the roles and responsibilities of admin staff, tracers and Team Leaders in the completion, review and approval of timesheets, the key controls to be adhered to and to ensure that claims made are accurate in terms of hours worked and specifically in respect of overtime and enhancements. There is a need for Management to develop and formalise procedures to confirm that rotas are efficiently managed.

Implication

Risk that rotas may not be appropriately managed if procedures defining the process are not in place.

Recommendation 4.1	A written procedure should be developed for the management of all aspect of the rota and timesheet management within the Contact Tracing Centre. This document should define the roles and responsibilities of staff including tracer and also Team Leaders in respect of the populating and approval of timesheets and the checks that should be performed to ensure overtime and additional hours are accurate and that there is audit trail to support the accuracy of these hours claimed. These procedures should also define that substantive hours are worked before utilisation of bank and overtime.
Priority	2
Management Action	ACCEPTED
Responsible Manager	CTC Lead
Implementation Date	July 2021

5 CTC Risk Register

Finding

In the 2019/20 and 2020/21 risk management audits, Internal Audit recommended that Directorate Risk Registers should, on a rotational basis, be presented at Non Executive level. This Contact Tracing Risk Register has not yet been presented at that level. Given that this is a new service, it would be beneficial for this Risk Register to be presented at non-executive level in the near future.

Implication

Risks may not be appropriately considered at a corporate level.

Recommendation 5.1	Management should present the Contact Tracing Risk Register to Governance and Audit Committee in the near future.
Priority	3
Management Action	ACCEPTED The Risk Register is to be presented to Committee on Thursday 15 April 2021.
Responsible Manager	Dr Liz Mitchell
Implementation Date	Completed April 2021

6 Standard Operating Procedures

Finding

Although a suite of standard operating procedures (SOPs) has been developed for staff to follow in respect of a number of areas of the Contact Tracing Centre, Internal Audit noted that there are no SOPs for staff to follow in the following areas:

- Contact Tracers when conducting their calls and recording information on MS Dynamics;
- Contact Tracing Centre Admin Team when cleansing and uploading Central Registry results on to MS Dynamics to ensure that duplicate cases and care home cases are removed from the data.

Implication

Risk that controls and agreed processes may not be adhered to if procedures are not in place.

Recommendation 6.1	Management should develop SOPs in respect of the above.
Priority	3
Management Action	ACCEPTED
Responsible Manager	CTC Lead
Implementation Date	July 2021

Appendix A - Definition of Levels of Assurance and Priorities

Level of Assurance

Satisfactory	Overall there is a satisfactory system of governance, risk management and control. While there may be some residual risk identified, this should not significantly impact on the achievement of system objectives.
Limited	There are significant weaknesses within the governance, risk management and control framework which, if not addressed, could lead to the system objectives not being achieved.
Unacceptable	The system of governance, risk management and control has failed or there is a real and substantial risk that the system will fail to meet its objectives.

Recommendation Priorities

Priority 1	Failure to implement the recommendation is likely to result in a major failure of a key organisational objective, significant damage to the reputation of the organisation or the misuse of public funds.
Priority 2	Failure to implement the recommendation could result in the failure of an important organisational objective or could have some impact on a key organisational objective.
Priority 3	Failure to implement the recommendation could lead to an increased risk exposure.

Note to Report

This audit report should not be regarded as a comprehensive statement of all weaknesses that exist. The weaknesses and other findings set out are only those which came to the attention of Internal Audit staff during the normal course of their work. The identification of these weaknesses and findings by Internal Audit does not absolve Management from its responsibility for the maintenance of adequate systems and related controls. It is hoped that the audit findings and recommendations set out in the report will provide Management with the necessary information to assist them in fulfilling their responsibilities.

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