



Version for Audit and Corporate Governance Committee – 15 September 2021

### **Action Plan for Improvement in Response to Public Health Wales Data Breach**

This document presents the Public Health Wales Action Plan that has been developed in response to the data breach incident that took place on the 30 August 2020. The action plan is in two parts. Part 1 details the immediate actions undertaken, primarily by the Communicable Disease Surveillance Centre (CDSC), upon identification of the data breach. Part 2 details the actions that will be undertaken in response to the recommendations outlined in the report of the external investigation report.

The actions are further delineated by timescale i.e. immediate, short term and longer term respectively, furthermore actions specifically for CDSC and longer term actions are identified separately.

## Part 1: Remedial actions and improvements undertaken in response to the data breach in August 2020

**Key:****Green** – action complete**Blue** – immediate/short term actions (Nov 2020-March 2021)**Yellow** – longer term actions (April 2021 onwards)

Remedial actions and improvements undertaken by PHW immediately following detection of the data breach and prior to the investigation			
	Action	Owner	Target Date
1.1	The table in question was removed from the Tableau public server to prevent further incidences of accidental publication.	CDSC	Completed
1.2	The use of tableau for disseminating individual-level identifiable data was immediately suspended.	CDSC	Completed
1.3	The publishing of external facing and internal facing reports were separated so that they are completed by different individuals at different times.	CDSC	Completed
1.4	Publication of the public facing dashboard is now the responsibility of more experienced senior staff.	CDSC	Completed
1.5	Relevant standard operating procedures were updated to emphasise that the correct server is selected.	CDSC	Completed
1.6	The Surveillance rota team and analysts were briefed on the data breach with emphasis on inherent risks and controls over the publication of data.	CDSC	Completed
1.7	The process for sharing person level identifiable data using secure NHS Wales systems was strengthened.	CDSC	Completed
1.8	The 'Out of hours' complaints procedures strengthened.	Assistant Director of Integrated Governance	Completed


## Part 2: Action plan in response to the recommendations of the investigation into the data breach (November 2020)

**Key:**




*\*Actions to be implemented within existing organisational work plans*

*# Additional actions identified for implementation by CDSC team*

 Overdue / not started

 In progress

 Complete

Recommendation 1 – Root cause analysis, when properly implemented, is a comprehensive method of investigation that identifies the sequence of events that resulted in an adverse incident or a human error. In respect of the breach, PHWT should commit to a series of Information Governance audits to assess whether Standard Operating Procedures and Validation processes are sufficient to meet its current and changing Information processing responsibilities, which will help to reduce the Likelihood of the human factor reoccurring.						Traffic Light System			
	Action	Owner	Target Date	Revised Target Date	Outcome				Update/Comments
1.1	Develop a PHW organisational information handling audit plan with a programme of rolling controls and improvement audits and escalation process. *	Assistant Director of Integrated Governance	December 2020		Improved assurance over information handling systems and processes.				JL and SS to draft an action plan and template to go out to the business leads (1.1) <b>Update 15/02/21 – Complete.</b>
	Implement Year one of the audit plan.*		November 2021		Significantly reduced risk of further data breaches.  More efficient and effective information handling procedures.				<b>Update 15/02/21 - (C3C) Good engagement from most parts of the business except HP where it hasn't yet been possible to speak to the two information handling system 'owners'. Report to follow in due course. No immediate concerns, minor issues raised only.</b> <b>Update 09.03.21 arrangements being confirmed interviewing of CDSC/VPDP information owners now surge has reduced.</b> <b>Update 05.05.21 – To put some regulates in place to gain agreement from internal audits.</b>

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							<p>Update 17.06.21 – Tools made available to use through internal audit.</p> <p>Update 22.07.21 – On target.</p>
1.2	Develop and implement training on information risk handling for identified PHW information risk handling managers.*	Assistant Director of Integrated Governance	March 2021	September 2021	Managers can demonstrate working knowledge and competency in information risk handling		<p>Update 15/02/21 – PHW information risk handling managers identified. Scope and development of training tool and materials underway.</p> <p>Update 09.03.21 – awaiting a realistic revised date for the implementation of the training plan</p> <p>Update 05.05.21 – SS to bring back an update on the training plan audit at the next meeting.</p> <p>Update 17.06.21 – SS TO PROVIDE UPDATE</p> <ul style="list-style-type: none"> <li>The compliance in CDSC is now improved.</li> </ul> <p>Update 22.07.21 – Training plan to be discussed at next meeting of the Business Leads group (8 Sept) and subsequently finalised for implementation (as part of the Integrated Governance IG pilot).</p>
1.3	Develop a CDSC process for the approval of new/revised data requests and information release methods and practices.	Head of CDSC; Assistant Director of Integrated Governance	December 2020		<p>A clear consistently applied process for data requests and information release. Any audit undertaken identify the process is working as expected.</p> <p>The viability of Information requests and the resultant release methods are assessed, approved and prioritised.</p>		<p>SC to audit (not immediately) the process that was put in place after breach to confirm it's working (1.3)</p> <p>Update 15/02/21 – There is a weekly ongoing check of all requests for data / information which is documented.</p> <p>Update 09.03.21 – further action to reduce the risk of internal and external processes</p>

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							Update 05.05.21 – Agreement that Organisational Learning application report completed by end of May. Update 22.07.21 – complete.
1.4	Revise and reissue the Small Numbers guidance to ensure that person level identifiable data is managed correctly.	Assistant Director of Integrated Governance	December 2020	June 2021	Audits undertaken to ensure that no small numbers are inappropriately published		Update 09/02/21 - Document in draft and now out for formal consultation with a view to being presented to BET in April 2021. Update 09/03/21 - will go out this week for formal consultation Update 05.05.21 – Document drafted, consultation completed and awaiting approval. Update 17.06.21 – Guidance completed and can now be issued. Update 22.07.21 - complete
<b>Recommendation 2 – As previously described in this report, PHW has considered the workload and capacity of teams and individuals with epidemiological data analysis and publication responsibilities. Progress has been made in recruiting the additional staff required by the CDSC. However, PHW should have a continual review cycle of resource requirement across those areas that have a greater responsibility to meet the demands of pandemic analysis and reporting.</b>						Traffic Light System	
	Action	Owner	Target Date	Revised Target Date	Outcome		Update/Comments
2.1	Recruit to workforce surveillance requirements as identified in the stage two operational plan to enable successful delivery (approved in October 2020).#	Deputy Director of Public Health Services/Acting Director of People and OD	January 2021	30 <sup>th</sup> October 2021 (Proposed)	Optimum and resilient workforce establishment within CDSC.		Update 15/02/21 – Completed. Business case now approved two appointments made and recruitment plan in place for remainder of vacancies Update 05.05.21 – Recruitment implementation in progress and on track and reverse mobilization arrangements being managed. Update 17.06.21 - Recruitment on target (some concerns around the right equipment being provided, this has been escalated through the response IMT group).

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							Update 22.07.21 – Recruitment is progressing.
2.2	Review the CDSC rota and out of hours workforce arrangements and ensure this complies with the Working Time Directive/Organisational Policy. Ensure mechanisms for the ongoing review of workforce capacity are included.#	Head of CDSC	December 2020		Efficient and effective working arrangements for the CDSC team.		<p>Update 15/02/21 – Completed. Ongoing recruitment of CDSC staff is alleviating pressure on the rota and out of hours arrangements and is proactively under review by CDSC management.</p> <p>Update 09.03.21 - paper written to confirm ongoing arrangements for workforce deployment in CDSC with continued risks for staff arrangements.</p> <p>Update 05.05.21 – Due to further arrangements, more effective rostering is now achieved</p> <p>Update 17.06.21 – Completed (This could be impacted by the reactivation of the wider organisation and the need for existing staff to take leave).</p>
<b>Recommendation 3 – PHW should develop a process to review outputs from CDSC’s surveillance team. For example, to ensure that bespoke reports are (i) necessary and (ii) need to be maintained as long-term outputs. Any applicants requiring bespoke outputs should be asked to provide an expiration date aligned with need, or PHW should apply its own in order to ensure the surveillance team has capacity to deal with workloads.</b>						Traffic Light System	
	Action	Owner	Target Date	Revised Target Date	Outcome		Update/Comments
3.1	Undertake a peer review process by a similar organisation/function to include the CDSCs: <ul style="list-style-type: none"> <li>surveillance team processes for outputs;</li> <li>procedures to assess report requests, their</li> </ul>	Deputy Director of Public Health Services	March 2021	31 December 2021	Gain further leaning to continually drive improvements.		<p>Update 15/02/21 - Observatory staff are now working alongside CDSC for the purposes of continual improvement. Formal process is under development for ongoing procedures and managing capacity</p> <p>Update 09.03.21 – Proposed to move date element from March 2021 to June 2021. Arrangements for peer review tbc</p>

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	<p>necessity, longevity and expiration date;</p> <ul style="list-style-type: none"> <li>procedures for maintaining capacity to address fluctuating workload</li> </ul> <p>Develop a process for ongoing review of the CDSC's surveillance team outputs. #</p>						<p>Update 05.05.21 – CDSC to consider whether internal arrangements can be part of peer review process by the due date.</p> <p>Update 17.06.21 – Scotland have agreed, timeline to be confirmed.</p> <p>Update 22.07.21 – Public Health Scotland are currently unable to commit to a timeline to undertake the peer review due to their ongoing workload. More discussions are required between the organisations to agree a date for the peer review process. Revised target date to be approved by the Executive Director or delegated to Deputy Director of Health Protection and Screening Services</p>
3.2	Develop and implement the learning from the peer review process.	Assistant Director of Integrated Governance	April 2021	31 December 2021	Continued assurance that current arrangements are comparable with good practice and are of good quality.		<p>Update 25/02/21 - Awaiting completion of 3.1</p> <p>Update – Proposed date is dependent on 3.1 (potentially July 2021)</p> <p>Update 05.05.21 – This will form part of the broader Organisational learning report</p> <p>Update 17.06.21 – On target.</p> <p>Update 22.07.21 – as per 3.1</p>
<p><b>Recommendation 4 – This investigation identified a specific inherent risk associated with the software publication process for the specific internal and external dashboards referenced throughout this report. The scope of the investigation and the timescale involved did not allow for an assessment of other software used by PHW for similar purposes. As such, in due course, PHW should consider a full review of its information management, analysis and publication tools.</b></p> <p><b>Any such review needs to consider the current demands on the workforce and the need to ensure data analysis and information outputs are not disrupted at this stage of the COVID19 pandemic.</b></p>							Traffic Light System
	Action	Owner	Target Date	Revised Target Date	Outcome		Update/Comments

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4.1	Develop a programme to review the risks and controls within and around PHW's information handling software, analysis and publication tools (including cyber security risks).*	Informatics lead / Information Governance	June 2021	31 <sup>st</sup> October 2021	Public Health Wales risk handling process identifies risk promptly and effective controls to mitigate any risks are implemented.		Not yet started <a href="#">Update 09.03.21 – Gain an understanding that the Digital Vision Review will support these actions</a> Update 05.05.21 – The publications best practice/guidance in place in Surveillance will be considered as part of the learning across PHW
							Software update 05.05.21 – Not yet due. JL to discuss with Drew Evans. <a href="#">Update 17.06.21 – JL meeting with Head of IT imminent.</a> <a href="#">Update 22.07.21 – JL to meet with Drew Evans by the end of September 2021.</a>
4.2	Develop a framework to specify information handling system requirements including control specifications over publication software and processes for internal / external dashboards.*	Informatics / Information Governance	June 2021	31 <sup>st</sup> October 2021	A consistent approach to procuring / developing all internal / external information systems is in place and applied.		Not yet started <a href="#">Update 09.03.21 – Gain an understanding that the Digital Vision Review will support these actions</a> Update 05.05.21 – Not yet due. JL to discuss with Drew Evans. <a href="#">Update 17.06.21 – JL meeting with Head of IT imminent.</a> <a href="#">Update 22.07.21 – JL to meet with Drew Evans as soon as possible.</a>
<b>Recommendation 5 - We are aware that the CDSC surveillance team has updated its standard operating procedures in light of the data breach. These procedures must be regularly reviewed (aligned with Recommendation 1), updated and approved to ensure they reflect changes in working practices.</b>						Traffic Light System	
	Action	Owner	Target Date	Revised Target Date	Outcome		Update/Comments



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5.1	<p>CDSC will produce and gain approval of a procedure to identify the governance arrangements for reviewing and updating SOPs within CDSC. #</p> <p>This will also feed in to the organisational Integrated Governance base line assessment.*</p>	<p>Head of CDSC</p> <p>Assistant Director of Integrated Governance</p>	<p>January 2021</p> <p>January 2021</p>	<p><del>31<sup>st</sup> May 2021</del></p> <p><del>June 2021</del></p> <p>September 2021</p>	<p>SOPs are kept up to date and are effective controls to mitigate risks.</p>	<p></p>	<p>Produce a procedure for review, sign off and update SOPs within CDSC (5.1)</p> <p>Update 15/02/21 – There are currently informal arrangements in place as part of SMT but there is no formal process in place. This will be addressed as part of the Integrated Governance pilot project.</p> <p>Update 09.03.21 – procedures and sign off now in place. Any significant governance issues will be escalated to Health Protection IMT.</p> <p>Update 09.03.21 – further confirmation on the Integrated Governance baselining pilot proposed completion date.</p> <p>Update 05.05.21 – To be included with the Organisational Learning report.</p> <p>Update 17.06.21 – May target date written in error. This is the ongoing Information Governance pilot learning.</p> <p>Update 22.07.21 – Currently on going as part of the Integrated Governance pilot due to report in October 2021.</p>
5.2	<p>Assess the feasibility of Office 365 to support PHW's document control/records management system architecture.*</p>	<p>Assistant Director of Integrated Governance</p>	<p>September 2021</p>	<p>December 2021</p>	<p>Information, documents and records are managed and stored as per regulation and best practice guidance.</p>	<p></p>	<p>Update 15/02/21 – Initial discussions have taken place with Deputy Director of Operations and Head of Informatics.</p> <p>Update 09.03.21 – Paper being developed to be considered by BET in March/April 2021</p>

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						<p>Update 05.05.21 – With respect to feasibility of Office 365, the Assistant Director of Integrated Governance to liaise with the Head of IT.</p> <p>Update 17.06.21 – JL TO PROVIDE UPDATE</p> <p>Update 22.07.21 – On target.</p>
						<p>Update 05.05.21 – Records management – paper tabled at BET for consideration of progress and next steps.</p> <p>Update 17.06.21 – JL TO PROVIDE UPDATE</p> <p>Update 22.07.21 – On target.</p>
	Undertake an options appraisal of a document control/records management system (Office 365 or alternative).*	Assistant Director of Integrated Governance	September 2021	December 2021		<p>Update 05.05.21 – With respect to feasibility of Office 365, the Assistant Director of Integrated Governance to liaise with the Head of IT.</p> <p>Update 17.06.21 – The Records Management element picked up as above. Initial discussion with Board Business Unit to explore document control arrangements.</p> <p>Update 22.07.21 – On target.</p>
<p><b>Recommendation 6 - We were informed during the investigation that, post-incident, PHW has reminded its staff of the importance of following incident reporting procedures. This should be regular event and PHW should consider the development and implementation of a communications plan aimed at raising staff awareness of their responsibilities in relation to incidents, including data breaches. This should include reference to the key elements of the Incident Management Procedure.</b></p>						Traffic Light System
	Action	Owner	Target Date	Revised Target Date	Outcome	Update/Comments

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6.1	Review and reissue the Incident Management Policy and Procedure including a proactive internal communications and awareness campaign.*	Assistant Director of Integrated Governance	December 2020	September 2021	Recorded incidents are all addressed efficiently within prescribed timescales.		<p>The Incident Management Policy and Procedure are on hold pending the implementation of the OfWCMS.</p> <p style="color: blue;">Update 09.03.21 – Incident reporting training is now being delivered by the Risk and Incident Manager across the organisation</p> <p>Update 05.05.21 – Revised Incident Management Policy and Procedure in the process of being updated.</p> <p style="color: red;">Update 17.06.21 – Draft policy nearing completion. Further work required on the procedural documents.</p> <p style="color: blue;">Update 22.07.21 – Draft policy completed awaiting review and Consultation. Work on Procedural documents required pending comments on the Policy.</p>
6.2	Implement (when released) the all Wales data breach reporting tool.*	Assistant Director of Integrated Governance	September 2021		Consistent and timely reporting of future data breaches or any other adverse incidents.		<p style="color: red;">Update 9/2/21 - This has yet to be released by the Information Governance Management Advisory Group</p> <p>Update 05.05.21 – The tool is now being launched from NHS Wales and IGWG to consider an approach to implementation.</p> <p style="color: red;">Update 17.06.21 – Decision to be made about either continuing with the existing reporting tool or adopt the All Wales Data Breach tool at IGWG/BET.</p> <p style="color: blue;">Update 22.07.21 – on track – to be discussed at IGWG meeting on 1 September.</p>

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6.3	Implement a programme of ongoing refresher incident management and reporting training and ensure this training is embedded within staff induction.*	Assistant Director of Integrated Governance	January 2021		All staff fully aware and up to date with incident management and reporting procedures.		SS, JL and Lisa Whiteman to discuss refresher of incident management training. Prioritise the approach (6.3) <b>Update 9/2/21 – Incident reporting training is now being delivered by the Risk and Incident Manager across the organisation.</b> Update 05.05.21 – completed.
<b>Recommendation 7 - PHW should consider a review of its approach to handling 'out of hours' emails and telephone calls to ensure that urgent matters can be directed to an appropriate contact –who understands the escalation process – at an early stage.</b>						Traffic Light System	
	Action	Owner	Target Date	Revised Target Date	Outcome		Update/Comments
7.1	The National Contact Centre (NCC) and National Health Protection Cell (NHPC) Oversight and Governance Groups will review and strengthen the 'out of hours' management of urgent matters by identifying and implementing improvements.	Assistant Director of Public Health Services	November 2020		An effective process is in place for handling out of hours concerns/issues/incidents accordingly and all NCC and NHPC staff comply with 'out of hours' procedures.		Send Action in item 7.1 to Andrew Jones and Zoe Wallace. CC: RBW <b>Update 15/02/21 – Out of hours procedures are being strengthened, documented and communicated through the Integrated Governance pilot project.</b> Update 05.05.21 – SOP completed. NCC now operating in hours Monday to Friday.
<b>Recommendation 8 - PHW should consider undertaking a training needs analysis, with the aim of ensuring staff responsible for processing and disseminating data, and information, have appropriate and targeted training. Training could include, for example, technical elements relevant to the specific software PHW uses and/or specific data protection or information governance training relevant to their role. This should help staff develop an even greater understanding of the risks associated with processing personal data.</b>						Traffic Light System	
	Action	Owner	Target Date	Revised Target Date	Outcome		Update/Comments
8.1	A training needs analysis will be undertaken for CDSC staff responsible for processing and disseminating data. #	Acting Director of People and OD/Assistant Director of	December 2020	<del>Proposed date end of April 2021</del>	All CDSC staff understand the data handling systems and comply with control procedures.		Training needs analysis to be completed - discuss with SS and Lisa Whiteman (8.1) <b>Update 22/02/21 - A TNA template has been designed and shared with</b>

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		Integrated Governance		<p><del>Proposed date end of May 2021</del></p> <p>Proposed date August 2021</p>		<p>CDSC leads, with a view to them populating specific knowledge required and disseminating to staff for completion. This has not yet been done and a further meeting is scheduled for the 25<sup>th</sup> February as a follow up and to agree any additional support needed to progress it.</p> <p>Update 09.03.21 - this is now in progress. Delay is due to previous surge and capacity. Proposed deadline end of April 2021.</p> <p>Update 05.05.21 – Due to resource challenges, this has been delayed by one month</p> <p>Update 17.06.21 – SS TO PROVIDE EXPLANATION WHY CHANGE OF DATE</p> <p>Update 22.07.21 – completed.</p>
8.2	CDSC line managers and staff with responsibility for processing and disseminating data should ensure that mandatory Information Governance training is complete and up to date. #	Acting Director of People and OD/All Executive Directors	December 2020	<p><del>Propose March 2021</del></p> <p>Proposed date June 2021</p>	CDSC information governance training up to date and compliant.	<p>Work with Lisa Whiteman to put a communication out to the executive to review compliance. (8.2)</p> <p>Update 15/02/21 - Communication sent to all staff. At present there is no formal system to check compliance rather it relies on staff to do the right thing and ensure they are compliant. Compliance was audited after the data breach and was found at 100% There is a need to audit again.</p> <p>Report provided to CDSC 28.1.21 with updated compliance position. At least 8 staff non compliant.</p> <p>Update 09.03.21 – 85% compliant – expected completion for this cohort is end of March 2021</p>

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						<p>Update 05.05.21 – Due to issues with ESR, the proposed date extended to June 2021 for 100% compliance to be achieved.</p> <p>Update 17.06.21 – Ongoing arrangements in place to prompt staff to continue with training.</p> <p>Update 22.07.21 – Complete.</p>
8.3	Following the completion of the CDSC Training Needs Analysis a training package and/or resources to be developed or procured that will address identified gaps.#	Acting Director of People and OD/Assistant Director of Integrated Governance	January 2021	<p><del>Propose April 2021</del></p> <p><del>Proposed date June 2021</del></p> <p>Proposed date September 2021</p>	Assurance that all technical and control elements of CDSC data handling systems are understood from an information governance perspective.	<p>SS,SC and Lisa Whiteman to discuss resources, once the training analysis is complete. (8.3)</p> <p>Update 15/02/21 - Work ongoing but delayed due to work commitments</p> <p>As above, awaiting completion of TNA knowledge template and distribution to all relevant staff.</p> <p>Update 09.03.21 – work commenced between CDSC and People OD.</p> <p>Update 05.05.21 – Awaiting Training Needs Analysis to be completed by CDSC, which has been delayed due to resource challenges.</p> <p>Update 17.06.21 – SS TO PROVIDE UPDATE</p> <p>Update 22.07.21 – Training Needs Analysis nearing completion.</p>