



Care and Health Information Exchange Data Protection Impact Assessment

Document Control Sheet

Version	1.2
Status	Issued
Author	Peter Cambouropoulos
Date Created	25/07/19
Date Last Updated	06/10/20

History			
Version	Date	Author(s)	Comments
0.1	25/07/19	P. Cambouropoulos	Created
0.3	25/07/19	A.Horton-Tuckett	Comments
0.4	12/09/19	A.Bunn	Update following workshop on 07/08/2019 with P. Cambouropoulos, A. Horton-Tuckett, A. Bunn, P. Mehta, D. Gordon and M. Kent.
0.5	26/09/19	A Horton-Tuckett	Review prior to initial consultation
0.6	10/10/19	P. Cambouropoulos	Draft
0.7	21/11/19	P. Cambouropoulos	Revised Draft for Circulation
0.8	05/2/20	M Kent	Added Security Questionnaire
1.0	05/2/20	P. Cambouropoulos	Included governance and other outstanding issues
1.1	27/02/20	P. Cambouropoulos	Amendments following DPIA panel review
1.2	06/10/20	P. Cambouropoulos	Change to Governance section to reflect reorganisation of groups  Microsoft Word Document

1.2	06/10/20	P. Cambouropoulos	Change to clarify downloading  Microsoft Word Document
-----	----------	-------------------	--

Contents

Care and Health Information Exchange Data Protection Impact Assessment	1
1 Background	4
2 Care and Health Information Exchange	5
2.1 Lawful Basis for Processing: CHIE	5
2.2 Subjects' Rights.....	6
2.3 Objection and Opt out by Data Subjects	7
2.4 Other Applicable Legal Requirements	8
2.5 Roles of Users of CHIE.....	8
2.6 Access Control	9
2.6.1 Access via User Name and Password.....	9
2.6.2 Single Sign-On (SSO)	9
2.6.4 SSO Responsibilities of the participating organisation.....	9
3 Management of CHIE	10
3.1 Fair Processing.....	10
3.2 Stakeholder Consultation.....	10
4 IT Security	10
5 Audit	11
5.1 Access Requests.....	11
5.2 Legal representation of the Data Subject.....	12
5.3 Death of the Data Subject.....	12
6 Governance	12
6.1 Management of Clinical Hazards	14
7 Information Flows	14
7.1 Data Extracts.....	15
7.2 Real-time Data Views	17
7.3 Data Flows to 3 rd Parties.....	17
7.4 Information Assets.....	18

1 Background

The Care and Health Information Exchange (CHIE), formerly known as Hampshire Health Record (HHR) is a local health and social care record which brings together information from participating Health and Care organisations. The CHIE record is a copy of health and care information held by those organisations.

In respect of UK data protection laws, the organisations that are involved in deciding upon the means *and* the purposes for sharing data are Data Controllers. In respect of CHIE, the lead Data Controller is North Hampshire Clinical Commissioning Group (CCG), who hold the contract with Orion Health and with South, Central and West (SCW) commissioning support unit to supply the software and to operate the CHIE service respectively.

Other organisations that are beneficiaries of the Orion Health contract including, General Practices, the acute hospital(s), community health provider(s), local authority(ies), mental health provider(s) and other organisations given access to the data for their purposes are contributing Data Controllers. These organisations are responsible for the supply of data to CHIE and/or the employment of individuals who will access CHIE.

CHIE enables timely access to key information in the health and social care records and medical history of service users, ensuring that clinicians and social care staff who are providing care have a picture of the person's care history, including, but not limited to, medications, allergies, test results and social care information in order to make well informed decisions that are in the best interests of the Data Subjects.

Data Subjects may object to sharing their data through CHIE for their care. As a result, there is a balance to be struck between respecting the objection of individuals and accepting a risk to their future care. At present the CHIE board has chosen to respect the wishes of individuals to object and will respect these by continuing to prevent information from being accessible in the CHIE. By doing so, they put themselves at some risk that their care may be sub-optimal and this is reflected in the advice to Data Subjects in the Fair Processing Materials. This decision will be kept under review in the light of developing best practice in relation to the difference between a 'free choice' opt out and a formal GDPR article 21 objection.

The way this opt out operates is described in section 2.3 below. Data Controllers will be involved in any change through the governance process described in this document, and will be informed of the outcome.

This document has been produced by SCW as a 'Processor' for the benefit and agreement of the 'Controllers'. The document is intended as an overview of the governance architecture of the Care and Health Information Exchange (CHIE). It seeks to provide a summary of the flows of data, including

- What identifiable data will be processed
- The levels of access according to defined professional roles
- The physical location of servers which hold data
- The data sharing agreements that cover these flows
- The operation of the CHIE data subjects objection and opt out of their data being shared to support their direct care
- The Governance structure that applies to the whole service

And the controls and risks associated with this processing.

2 Care and Health Information Exchange

In accordance with the principles of the General Data Protection Regulations (GDPR) and the Data Protection Act 2018, CHIE undertakes to ensure only the minimum necessary amount of Personal Identifiable Data (PID) is shared, and only shared with those with a lawful basis to do so.

2.1 Lawful Basis for Processing: CHIE

The lawful bases for processing data in CHIE under GDPR Article 6 are therefore as follows:

6(1)(c) – Processing is necessary for compliance with a legal obligation¹

6(1)(e) - Processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller²

The legal duty to share is placed on professionals Health and Social Care (Safety and Quality) Act 2015 (section 251B Duty to share information) which requires data sharing where it is not otherwise constrained by law.

In some emergency medical situations this basis would also apply

6(1)(d) – Processing is necessary to protect the vital interests of a data subject or another person

Nearly all access to CHIE will be on the basis of 6(1)e, however the other basis are listed as potential justifications for access across the parties involved in CHIE.

Because CHIE involves processing special category data a reason is also required under Article 9, which will be:

9(2)(h) processing is necessary for the purposes of preventive or occupational medicine, for the assessment of the working capacity of the employee, medical diagnosis, the provision of health or social care or treatment or the management of health or social care systems and services on the basis of Union or Member State law³ or pursuant to contract with a health professional and subject to the conditions and safeguards referred to in [GDPR Article 9] paragraph 3⁴

In some emergency medical situations this reason would also apply

¹ For example, S.11 of Children Act 2004 – health and social care organisations ‘...*must make arrangements for ensuring that their functions are discharged having regard to the need to safeguard and promote the welfare of children; and any services provided by another person pursuant to arrangements made by the person or body in the discharge of their functions are provided having regard to that need.*’

² For example, S.72 of National Health Service Act 2006 ‘*It is the duty of NHS bodies to co-operate with each other in exercising their functions.*’
Health and Social Care (Safety and Quality) Act 2015 ‘*Duty to share information*’ (where not otherwise constrained by law.

³ See footnote 2 above.

⁴ this refers to use of data by bodies/persons that are subject to secrecy, through their professional registration or employment contract for example

9(2)(c) processing is necessary to protect the vital interests of the data subject or of another natural person where the data subject is physically or legally incapable of giving consent.

The processing is also permissible under Data Protection Act 2018 Schedule 1, Part 1, paragraph 2 (d-f) related to the provision of health or social care and management of health or social care systems and services. .

The Data Sharing Agreement will contain the full legal gateways that provide the 'official authority' and 'member state laws' that permit the processing by CHIE partners for the provision of direct care.

Data within CHIE is only being processed to support the provision of direct care by the partners participating in the CHIE programme. Should any further uses of the data not related to direct care be proposed, this will be reviewed by the CHIE IG Group. At that point any concerns around compatibility of purposes will be checked.

2.2 Subjects' Rights

Under UK data protection laws, subjects have the right to:

1. Be informed
This relates to privacy information provided to Data Subjects by Controllers.
2. Access their personal data
Exemptions can apply (such as, but not limited to, information that, if disclosed, would likely cause serious harm or distress, and information relating to third parties that, if disclosed, would infringe upon the third party's rights and freedoms). Individuals that make a request for a 'CHIE record' will be advised of the relevant Controllers contact details to make their request to each of the relevant Controllers.
3. Rectify their personal data
Applies to correcting inaccuracies – however, it is unlikely that an organisation would uphold a request to rectify professional opinion (which often constitutes large parts of health and social care records). Because CHIE is primarily composed of data received from 3rd party systems, any rectification will be carried out in the source system(s). CHIE agrees to assist this by signposting Data Subjects to other systems which hold relevant data about the Data Subject. Any data directly recorded incorrectly in CHIE will be corrected in CHIE
4. Have their personal data erased
It is very unlikely that this would apply as it does not apply to processing carried out as part of a public task. It would only apply if processing was found to be unlawful or by order of a court of law.
5. Object to the use of their personal data
This right applies to processing carried out as part of a public task or in the legitimate interests of an organisation (where it does not infringe upon the rights and freedoms of an individual) but is unlikely to be upheld where processing is for providing direct care.
6. Restrict processing of their data
This right can apply whilst an organisation is responding to an objection or a request to rectify data.
7. Obtain their personal data in a 'commonly used and machine readable format'
This right only applies where processing is based on consent or a contract with the data subject.
8. Not to be subject to a decision solely based on automated processing

This is unlikely to apply to processing in contemporary health and social care as decisions will rarely be made without human involvement, however, it will undoubtedly become more common with advances in Artificial Intelligence.

2.3 Objection and Opt out by Data Subjects

Data Subjects may object to sharing their data through CHIE for their care. As a result, there is a balance to be struck between respecting the objection of individuals and accepting a risk to their future care. At present the lead Data Controller (on the advice of the CHIE Board) respects the wishes of individuals expressed through an objection and will act on these by preventing information from being accessible in the CHIE.

By doing so, Data Subjects put themselves at some risk that their care may be sub-optimal and this is reflected in the advice to Data Subjects in the Fair Processing Materials.

The decision to automatically respond to Data Subjects' objections by opting them out of the service will be kept under review in the light of developing best practice.

Objections and withdrawal of objection can be recorded one of two ways:

1. Through the General Practice of the individual, or,
2. Through the CHIE back office (as detailed below).

CHIE Back Office contact information:

Website: <http://www.careandhealthinformationexchange.org.uk/>

Email: info.chie@nhs.net

Phone: 0300 123 1519 or

Post: The Care and Health Information Exchange
NHS South, Central and West Commissioning Support Unit Building 003
Fort Southwick
James Callaghan Drive
Fareham
PO17 6AR

Further information on providing opt-outs can be found in the General Medical Council's guidance on 'Using and disclosing patient information for direct care'⁵.

Communication materials explaining the potentially risk to care that can result from the decision to object to (and therefore opt out of) CHIE will be included in the fair processing notices and other communications (see Fair Processing section below)

On receipt of an objection from a Data Subject, the data processor will automatically opt the Data Subject out of CHIE. As described above, the programme board decision to offer an opt out to CHIE data subjects will be kept under review in relation to overall use of the system and any developing national guidance on opt-outs and formal GDPR article 21 objections. Any

⁵ <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/confidentiality/using-and-disclosing-patient-information-for-direct-care>

change to this approach will be validated through the CHIE IG group and Data Controllers will be informed.

CHIE data subjects are also able to withdraw their objection, in which case their opt out will be removed and their data processed on the basis detailed earlier in this document.

SCW undertakes to make materials available to GP practices to describe how to record objections and withdrawal of objection.

2.4 Other Applicable Legal Requirements

In addition to GDPR, there are a large number of legal requirements to share or disclose information relating to CHIE data subjects in limited circumstances. CHIE abides by these requirements where appropriate.

Users of CHIE have an ongoing requirement to abide by the common law duty of confidentiality. As this is an area that is subject to case law precedents, national policy and best practice guidance, advice on the appropriate use of CHIE will be kept under review by the CHIE IG Group (see below) in light of advice from national bodies such as the Information Commissioners Office and National Data Guardian.

2.5 Roles of Users of CHIE

In order to qualify as a user of CHIE an individual must:

- Be a member of staff responsible for care within a clinical or social care service and
- Provide a health or care service to a CHIE Data Subject.
- Only access data for individuals for whom they have a care responsibility

The Controllers will be required to identify and request justifiable access for their members of staff through a controlled authorisation process. Access to CHIE will be given based on permissions assigned to defined roles within the CHIE system. The Data Processor will agree the roles and permissions assigned to each role, based on what each role will need to know in reasonably foreseeable circumstances. These roles include:

- Clinician - doctor, nurse, midwife, dentist, AHP, pharmacist
- Social Worker
- GP

In addition, for specific purposes related to their roles, these roles have access

- Clerical Administrator (inc GP Secretary/Practice Manager)
- Clinical Portal System Administrator
- System Manager
- Data Quality Manager

The following will typically have roles but without access to any clinical data

- Privacy Officer
- Project Support
- Trainers

The Role Based Access Control (RBAC) Matrix describing what these roles can and cannot access is included below



CHIE-Orion - RBAC
Matrix.pdf

2.6 Access Control

This section sets out the responsibilities of the parties where users within an organisation will access CHIE in order to view clinical data.

2.6.1 Access via User Name and Password

User access to CHIE is managed by SCW. Each organisation requiring access to CHIE must identify and request access for their user(s), unless they only utilise Single Sign-On software (see below).

The Data Processor will send an Acceptable Use Agreement (AUA) which the user must agree to and return, in order to be provided with a User Name and Password. The AUA informs users of their responsibilities when viewing information on the CHIE, and they are made aware that they may face disciplinary action by their employer if they misuse this service.

SCW has formal policies in place to deal with such incidents, should they occur, including a mechanism for reporting incidents to the Data Controller.

Access to data is based on a user's role using role based access control (RBAC). Maintenance and updating of the RBAC rules is subject to scrutiny by the CHIE IG Group (see below)

2.6.2 Single Sign-On (SSO)

SSO is an authentication process that enables users to access the CHIE using the login credentials of their line-of-business system. Where organisations have enabled SSO functionality, the clinical system that they use will log the user directly into the CHIE via SSO, using their primary log-in to identify the user's access rights. This is more efficient and user-friendly, and reduces the potential risk of erroneously opening the wrong record or abusing the system by searching for and accessing records without legitimate/justified reasons. Full user and Data Subject auditability is retained when using the SSO functionality.

SSO users are directed to an individual's record based on information received from the users system. They are not then able to search for a different Data Subject in CHIE. In order to select a different Data Subject they will return to their line of business system and select a different Data Subject there, then again move into CHIE in the context of the new Data Subject.

2.6.3 SSO Responsibilities of the Data Processor

SCW is responsible for providing SSO functionality to participating organisations and enabling the functionality, in agreement with the clinical system supplier of the organisation who will be viewing the data.

The Data Processor agrees to ensure that only participating organisations that accept the responsibilities outlined in 2.6.4 will be allowed to access CHIE using SSO.

2.6.4 SSO Responsibilities of the participating organisation

Where SSO is in use, the participating organisation is responsible for:

- 1) Ensuring users are aware of the AUA. The Data Processor will make the AUA available to all organisations.

- 2) Implementing best practice such as providing standards for password composition and frequency of change to avoid confidentiality breaches.
- 3) Prohibiting staff from sharing passwords or leaving workstations unlocked when unattended.
- 4) Ensuring the starters and leavers policy restricts access to the clinical system appropriately and thus restricts access to the CHIE.

3 Management of CHIE

3.1 Fair Processing

The parties acknowledge that in line with the stipulations of;

- General Data Protection Regulations (GDPR),
- Data Protection Act 2018, and
- Principle One and Seven of the Caldicott Principles,

personal data must be processed fairly and lawfully. This means that data subjects should not be surprised by what information is being shared, why that information is being shared and with whom it is being shared.

The Data Processor can supply materials to inform service users and promote the use of the system to all partner organisations, in order to meet their fair processing obligations. The Data Processor assists, and will continue to assist, Data Controllers in meeting their fair processing obligations by:

- 1) Maintaining an open access website at <http://www.careandhealthinformationexchange.org.uk/> which describes in detail the use and content of CHIE and provides a mechanism by which members of the public can opt out of participating.
- 2) Providing fair processing leaflets and posters to Data Controllers and others for communicating to their service users
- 3) Maintain an account on Twitter™ @CHIEnews

Within the CHIE DSA, the Data Controllers undertake to promote these materials or to make equivalent public statements to the public to comply with the DPA and GDPR requirement for fair processing. The fair processing materials will include instructions to service users on how they can object their data being shared for direct care purposes, as set out in section **Error! Reference source not found.**

Fair processing materials will include advice on when it is appropriate for a user to access CHIE.

3.2 Stakeholder Consultation

The clinical and care priorities of developments to the CHIE service will be discussed and agreed through the CHIE prioritisation forum (or a subsequent group convened for the same purpose). The terms of reference for this group includes representation from all CHIE stakeholders. Developments that are agreed to be undertaken through that group will then be taken to the CHIE IG group (see below) for review and agreement of their IG implications.

4 IT Security

The system is physically hosted by Amazon Web Services (AWS). A full System Security Assessment has been completed jointly by Orion Health and SCW, and is included below



CHIE_System_Security_assessment_v0.2

For Clarity, the Orion Health AWS architecture is specifically configured to retain all personal data within the UK. This helps to simplify the legislative and business requirements and to future-proof any changes against any changes in relation to Brexit or other political developments. The CHIE solution uses a dedicated AWS account used to hold its sensitive data which is specifically configured only to deploy components within the AWS London region. This region is entirely within the UK and there will be no offshoring of sensitive data to EU or anywhere else. Any support requiring access to sensitive data by both Orion and SCW is provided only by local resources within the UK.

This is in line with both the [Department of Health and Social Care](#) and [NHS](#) policies on the best use of cloud services. The AWS cloud hosting service is compliant with the relevant data protection standards, including:

- [NHS Digital - Data Security and Protection \(DSP\) Toolkit](#)
- International Organization for Standardization (ISO)
 - 27001 Security Management Controls,
 - 27017 Cloud Specific Controls,
 - 27018 Personal Data Protection,
 - 9001 Global Quality Standard
- Cyber Essentials Plus
- General Data Protection Regulation (GDPR)/Data Protection Act 2018
- National Cyber Security Centre (NCSC) Cloud Security Principles

5 Audit

CHIE can be audited, both:

- Proactively, to investigate possible errors in records or to check for inappropriate access and
- Reactively, where questions have been raised about appropriate use of the system.

All Data Subjects whose records are available in CHIE have the right to request to see the audit trail which will detail who has accessed their record in CHIE. Data Subjects can request this through the website at <http://www.careandhealthinformationexchange.org.uk/>.

The Data Processor agrees to provide, on request, to Data Controller(s), where relevant, audit trails relating to the actions of any staff within the Partner organisations using CHIE to assist with disciplinary proceedings or investigations. The Data Processor further agrees to provide audit trail information to the Data Controller about use of its data by other users of CHIE.

As part of their Data Sharing Agreement, Data Controllers agree that audit trail information may be supplied to other Data Controllers (where the data pertains to the staff or service users of the Data Controller) and to Data Subjects regarding the activities of their employees.

5.1 Access Requests

If any requests are received for access to information that has been fed into CHIE from partner organisations' systems, the relevant partner organisations will be informed and required to respond directly to the requestor. As CHIE is not a primary source system itself, it is not currently considered appropriate that it be the source for subject access requests (SARs) or other requests for access to records under Access to Health Records Act 1990.

There is active debate within the NHS about the role of interoperability products with respect to SARs. This decision will therefore be kept under review and may change in the light of legal clarification or best practice advice.

5.2 Legal representation of the Data Subject

Any data sharing preferences or exercise of Subject rights made by the Data Subject's legal representative (Lasting Power of Attorney or Legal Deputy for Health and Welfare) will be treated as they would if raised by the Data Subject.

5.3 Death of the Data Subject

In the event of a Data Subjects' death, particularly in an unexpected way, there is often a service related need to review their case history for both legal reasons and to ensure that future care is improved. CHIE is a key source of data for this purpose. For this reason the deceased Data Subject's record will continue to be viewable in CHIE, for the relevant retention period (as defined in the NHS records management code of practice).

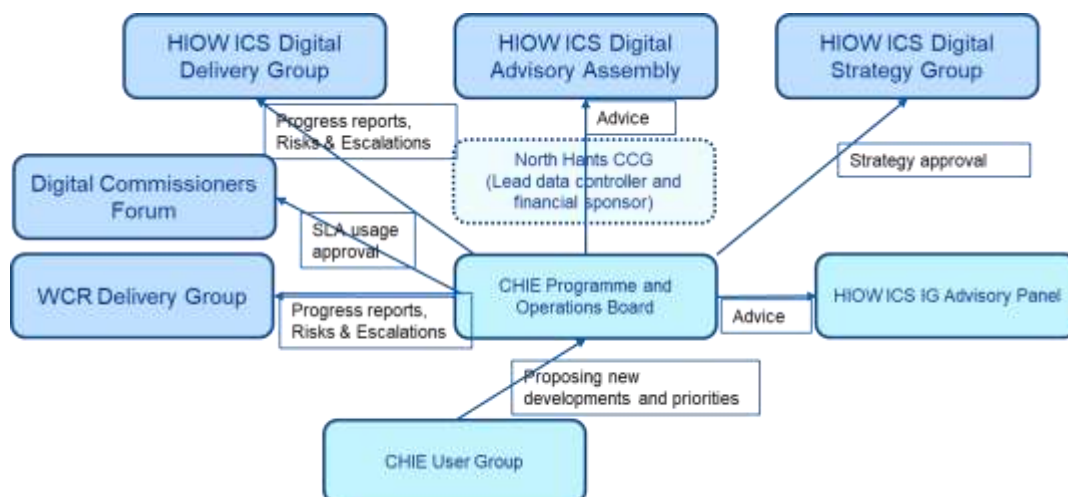
This refers to access by professional users, in the course of their job. This is not to be confused with a request for access to records (under Access to Health Records Act 1990) by the legal representative of the deceased or an individual with a claim arising out of the death of the patient. Any access requests will be dealt with as per section 5.1 above.

Any objections expressed by the Data Subject during their lifetime will continue to be respected by the Parties in the event of the death of the Data Subject. If no objection was raised by the Data Subject but their surviving relatives raise any objection these will be considered on a case-by-case basis and any reasonable requests will be upheld.

The Parties acknowledge that the law is unclear in this area and that therefore this may be subject to change in the event of further case law or national best practice advice. At present this policy is driven by what appears to be good practice respecting, as far as possible, the needs of staff and the sensitivities of surviving relatives.

6 Governance

All parties recognise that strong and representative governance is crucial to the effective and safe operation of CHIE. As a result HIOW have established effective governance mechanisms that control and oversee the operation of the CHIE service. The governance and reporting structure is represented graphically below.



The role of the key groups is outlined below

Group/Org	Responsibilities
CHIE Programme and Operations Board	<p>Responsible for overseeing the running and development of CHIE:</p> <ul style="list-style-type: none"> • Responsible for delivery of CHIE strategy/roadmap • Approving new developments subject to resources, budget and alignment with strategy/roadmap. • Managing operational and programme risks and issues • Understanding and managing interdependencies with sister programmes (WCR, PHM, PHR etc) • Seeking and receiving advice from the HIOW ICS IG Advisory panel • Balancing the requirements of users, sister programmes, national etc • Membership <ul style="list-style-type: none"> • CHIE SRO (Chair) • Senior Representative from North Hants CCG (Lead Data Controller) • CCG DoF representative • CHIE Operational and Programme Leads • Orion • Chair of the CHIE User group • Representatives of sister programmes (WCR, PHM, PHR etc) • STP IG Advisory Panel representative • Data controller provider reps including primary care
CHIE User Group	Collating and proposing new users developments and priorities
North Hants CCG	Lead Data Controller for CHIE. Ultimately responsible for determining the 'Means and Purposes' for data processing within the CHIE service under GDPR
STP IG Advisory Panel	Providing advice on matters relating to IG.

Group/Org	Responsibilities
Contributing Data Controllers eg GP practices, Acute trusts etc	Responsible for deciding whether or not to share data with CHIE, for the purposes set out by and contracted for by NH CCG.

6.1 Management of Clinical Hazards

Clinical hazards will be managed according to the CHIE Hazard Management strategy, which is included below:



Microsoft Word
Document

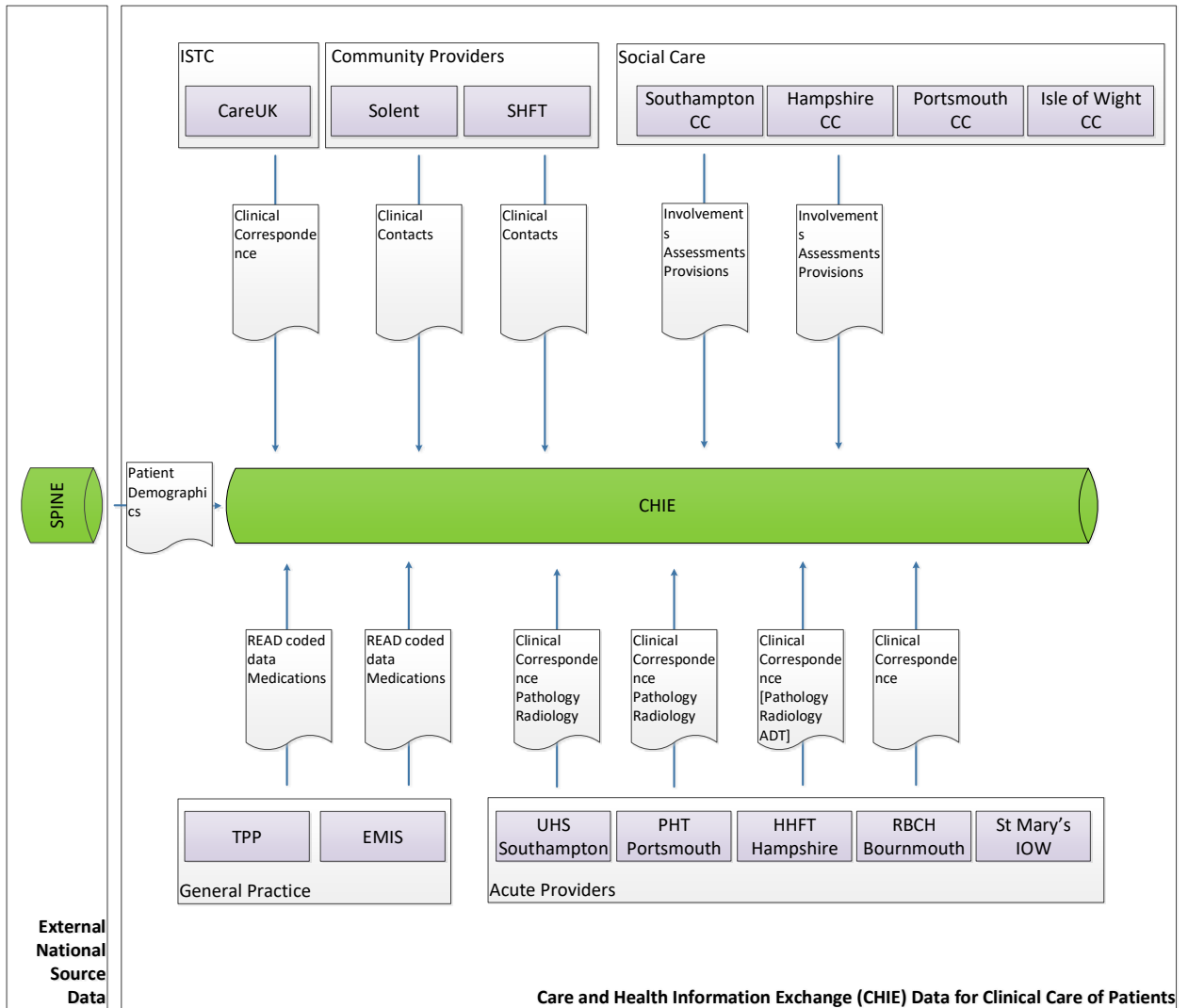
The CHIE Hazard Log can be found at https://future.nhs.uk/gf2.ti/f/1036674/56897285.6/XLSX/-/CHIE_Hazard_Log.xlsx (log in required)

7 Information Flows

The overall architecture is described pictorially below, with the primary data flows shown into CHIE in terms of the types of data being processed. Please note that this will be updated from time to time in line with new data flows included as a result of agreement through the governance process outlined above.

Data flows through CHIE are broken down into:

- 1) Data that is physically transferred from source systems to the CHIE database. This data will be retained in the database for the same period that it is retained in the source system. Any changes/deletions from the source system (such as erasure when retention period has concluded for a deceased patient or conclusion of treatment).
- 2) Information that is presented in 'real time' directly from source systems via the CHIE front end, but is not retained in the CHIE database



7.1 Data Extracts

The data extracted is outlined below.

Provider Organisation	Name of system	Vendor	Integration Type	Data Set
Care UK (Southampton Independent Treatment Centre)	TBC		Feed	Discharge Summaries
EMIS GP	EMIS	EMIS	Feed	GP Data (READ codes only)
Hampshire County Council (HCC)	SWIFT	Northgate	Feed	Assessment, provisions, involvements
Hampshire Hospitals Trust	Clinisys	Clinisys	Feed	Pathology Data HL7 Standard

(HHFT)				
Hampshire Hospitals Trust (HHFT)	CRIS	HSS	Feed	Radiology Results HL7 Standard
Hampshire Hospitals Trust (HHFT)	In-house		Feed	Generic Correspondence Care Plan
Portsmouth Hospitals Trust (PHT)	EPRO	Bluewire	Feed	Clinical Correspondence
Portsmouth Hospitals Trust (PHT)	APEX	DXC	Feed	Pathology Data HL7 Standard
Portsmouth Hospitals Trust (PHT)	CRIS	HSS	Feed	Radiology Results HL7 Standard
Royal Bournemouth and Christchurch FT (RBCH)	Symphony A&E	EMIS	Feed	Discharge Summaries
Southampton City Council	PARIS	Civica	Feed	Alert, CarePlans, Classification, Disability,Events, ExtendedDetails, NeedAndOutcome, Practioner, Referrals, RelatedPersons, ServiceProvisions
Spine Directory Reporting Services	PDS		Feed	Patient Demographic Data
TPP GP	SystmOne	TPP	Feed	GP Data (Clinical Codes Only)
University Hospital of Southampton (UHS)	In-house		Feed	Correspondence
University Hospital of Southampton (UHS)	Clinisys	Clinisys	Feed	Pathology Data HL7 Standard
University Hospital of Southampton	RIS	Wellbeing	Feed	Radiology Results HL7 Standard

(UHS)				
-------	--	--	--	--

7.2 Real-time Data Views

Users of CHIE can also access data directly from the following sources for specific service users:

- EMIS GP clinical system covering
 - Data Subject medications and associated GP clinical notations ('free text')
 - Data Subject problems (ie diagnoses) and associated clinical notations
 - End of Life care plans including associated clinical notations
- Clinical data from the Southern Health RIO system including
 - Adult physical health
 - Mental Health and Learning disabilities
 - Childrens' health

The list of views into other systems is outlined below

Provider Organisation	Name of system	Vendor	Integration Type	Data Set
Docman Share	Docman	Advanced	API	Documents
EMIS GP	EMIS CRV	EMIS	API	Medications, Problems and End of Life, including 'free text'
Solent Health FT	TPP	SystmOne	API	Community and Mental Health Data
Southern Health FT	RiO Realtime View	Servelec	API	Community and Mental Health Data

7.3 Data Flows to 3rd Parties

The following organisations receive data extracted from CHIE

Receiving Organisation	Data set	Frequency
Southern Health FT	Childhood vaccinations performed in primary care in the previous period	Daily
Southern Health FT	Diagnoses of serious mental illness (SMI) only for patients identified as being on care programme approach (CPA) in SHFT	Monthly

Documents uploaded to CHIE are available to individual users to download and save locally. These can then be amended or included in other clinical records. Where documents cannot be viewed in the users web browser because of the format of the document in CHIE (for example Microsoft Word format) the user will be offered an option to download these to view using a suitable application on their local machine

7.4 Information Assets

The information assets to be created under this DPIA are:

- Development: Orion Health uses their internal AWS account for solution configuration development. Unit testing and functional testing occurs in this environment.
- Test (or Integration): This is the first customer AWS account used for delivery and is used for deployment and system testing of a 'tagged' solution release.
- Preproduction (or Staging): Used primarily for user acceptance and performance testing but may also provide a non-PHI environment to allow recreation of live issues.
- Production: for live use by end users and clinicians. This environment is not to be used for development, testing or training purposes. It may be used for diagnosing support issues in Production if no other environment is able to replicate these issues.
- Training: Used for end user training only, this environment is usually aligned with the production environment but may, in some circumstances, be aligned with pre-production

The design for these assets is included below:



NNH_CHIE_NHS_North_Hampshire_CCG_Solution_Overview_0.4.pdf