

Health and Social Care Transformation Programme

Data, Information and Knowledge Project

Information Strategy

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1. Introduction

The scope of this information strategy cuts across several existing government strategic initiatives and health care vision and delivery plans. These include the Programme for Government 2016-2020, Department of Health and Social Care (DHSC) Service Delivery Plan 2019/2020 and the DHSC Integrated Care Vision 2018.

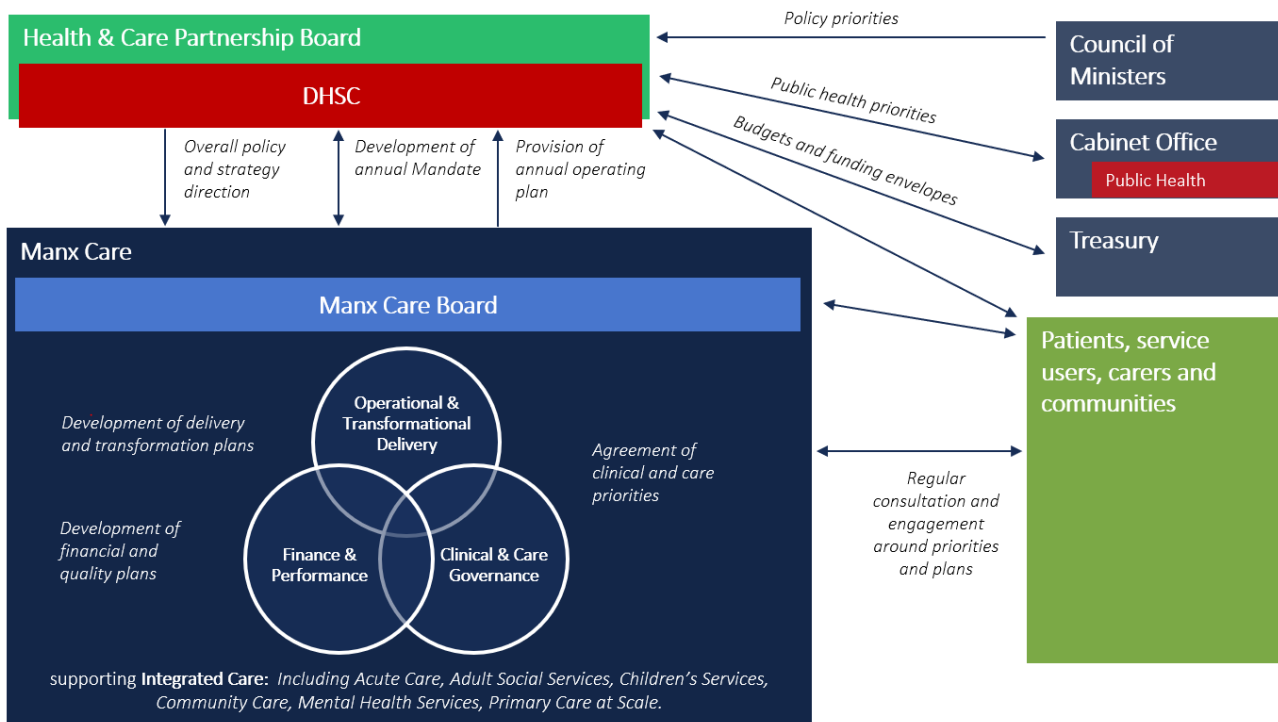
A key driver for this strategy is the delivery of the recent Independent Health and Social Care Review Final Report that includes a package of 26 recommendations to be implemented in order to achieve a financially and clinically sustainable, high quality health and social care system for the Isle of Man. The Health and Social Care Transformation Programme is tasked with implementing the recommendations and is underpinned by 14 projects. An overview of the Transformation Programme projects can be found in Appendix A.

The Transformation Programme and its constituent Projects covers all aspects of an integrated health and social care system, applying equally to social care as much as health care, mental health as much as physical health and wellness and prevention as much as treatment and cure, and to all users, whether they are a baby, child, young person, adult or old person. The references to "health and social care services" and "patients and service users" throughout deliberately reflect this principle."

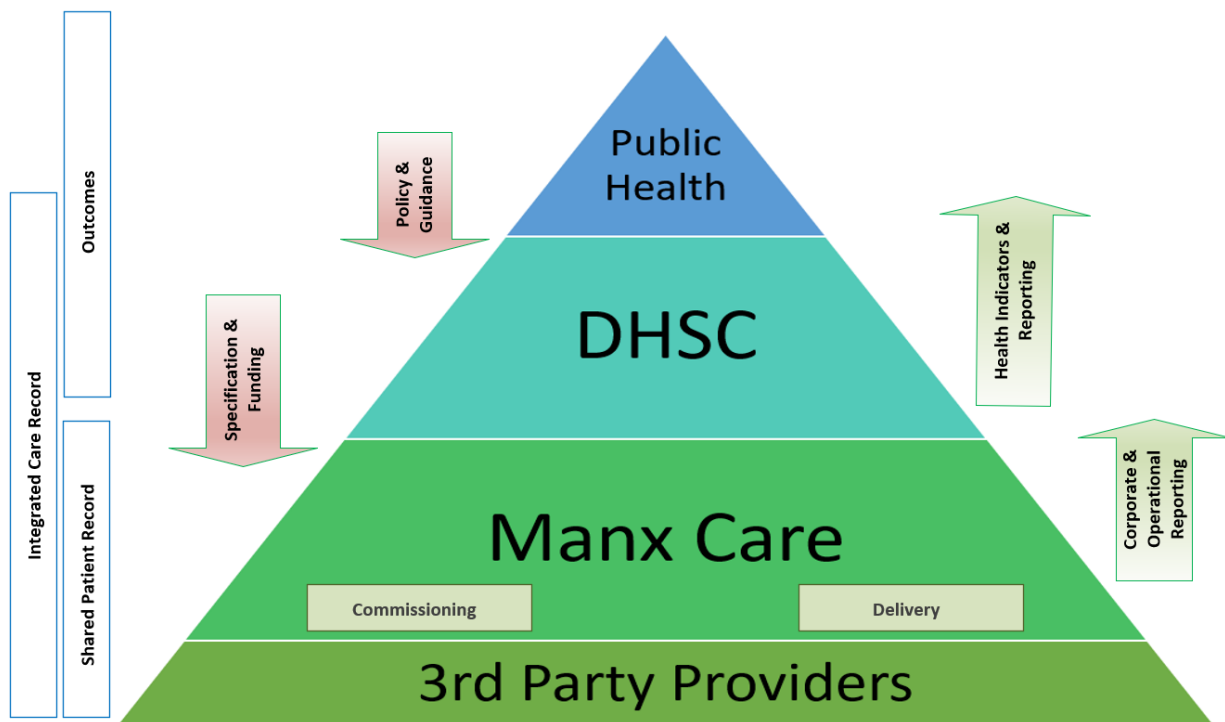
As the projects deliver service transformation there will be an increased reliance on high quality consistent information to support their implementation and ongoing sustainable strategic delivery. Additionally, through data analysis and reporting, information will be used to inform DHSC and other stakeholders of Manx Care's performance and mandate compliance and assurance of quality. The current system has been built incrementally over a number of years and has resulted in a siloed delivery system not designed to meet the data sharing needs of a modern health system.

The Governance and Accountability Framework Project are developing the model for corporate and clinical governance alongside proposed governance structures for political, contractual and managerial accountability. The project has been consistently focused on developing detailed structures and processes; performance and accountability arrangements; and organisational development requirements; all to enable establishment of shadow governance for Manx Care; leading to permanent governance arrangements covering all aspects of health and care planning, delivery and assurance.

The following structure developed by the Governance and Accountability Framework Project illustrates, at a high level, the future state key entities' responsibilities and accountability and identifies the proposed information flows between them for health and social care planning activities.



The sectors supported by this strategy include Public Health, DHSC, Manx Care and 3rd Party Providers as illustrated by their relationships below.



2. Vision

The DHSC vision is to become “the best small-island health and social care system” and deliver longer, healthier lives by providing the right care, at the right time, in the right way, as close to home as possible.

A modern health and social care system designs services and care around the needs of the users, putting the patients and service users at the centre of care. Meeting the needs of the user applies just as much to the data and information that supports the delivery of care and the management of those services. Indeed, the information strategy must mirror the DHSC vision as it must seek to make available the right information, at the right time, in the right way, to the right place and to the right user. The vision for data and information is designed for

“... delivering the right information safely into the right hands to enable the provision of the best small-island health and social care system.”



Right Information: Information collection should be led by the requirement to collect and report on key performance indicators. The challenge lies in understanding the information requirements of the user as this will identify the data that must first be collected and stored before it can be made available. Further, collecting data alone is not enough. Whilst on its own it may serve a limited purpose, it is only when data is processed that it realises its potential and becomes valuable information that empowers users, informs decisions and has the potential to achieve better outcomes.



Right Time: Timeliness relates to the provision of the information and making the most current information available at the right time for the required purpose. Data and information has a lifecycle through which it is created, maintained, used, published and retired. This applies whether the information is held on paper records or in a digital format. Good data management and data governance is required to ensure data is handled appropriately during its lifecycle.



Right Way: Information, whether used for service user care or managerial reporting, must be clear, accurate and consistent to ensure that the right decision can be made. The collection, processing and use of information must be done in the right way, making the best use of technology. Efficiencies in cost and resource are realised when data and information are collected and processed automatically by digital systems. This necessitates that the way in which data is formatted is well defined and standardised.



Right Place: It is crucial that the information is available in the right place to support the DHSC vision that health and social care services, wherever possible, should be delivered on the Island and closest to a person’s home, whether in the service user’s home, local community, surgery or hospital. Digital access to patient and service user’s integrated care record will be a key facilitator in reducing the geographical barriers to the delivery of care. Technological and innovative solutions such as telemedicine and mobile applications can provide further opportunities to change the place in which health and social care services are delivered.



Right User: It must become easier to share information with the right people, breaking down barriers and building trust that information is being held securely and used responsibly. There is a diverse range of health and social care information users including citizens, visitors, clinicians, social workers and other staff. Information

systems must be designed to meet the needs of the user, collecting the right information and making information available to the right user.

Our vision is for an information strategy that builds a solid foundation to support the DHSC vision and the sustainable, transformed services delivered by the Transformation Programme providing the right people access, to the right information, at the right time.

3. Mission

The Information Strategy mission is to:

- Provide information that meet User's needs whether they be public, patients, service users, clinicians, social workers or other staff.
- Enable the measuring of Performance, Reporting and Forecasting by capturing high quality information to measure and assess effective service provision, assure quality, inform decisions and achieve better outcomes.
- Make better use of health and social care information through data sharing whilst ensuring information is kept safe.

As with other health and social care systems around the world, the vision of a fully integrated information system has been the aspiration for some time, but has proven difficult to achieve. Some progress has been made with important building blocks now in place within a number of key elements of the total system. However, the lack of integrated systems and an integrated care record is a substantial barrier to providing effective, integrated care, as it affects communication, efficiency and presents risks to the service users and providers.

There is also currently a lack of accurate, comprehensive and timely operational data relating to activity, cost and quality across the system. The Final Report noted that more information needs to be made routinely available to enable informed, timely and accurate decisions regarding the quality, efficiency and cost of health and social care services on the Island. The measuring and reporting of operational performance, health outcomes and financial information is critical to the ongoing commissioning, delivery, and forecasting of health care needs.

Digital projects provide an opportunity for the effective capture, storage and sharing of information. This is particularly true for when an integrated health and social care system is dependent on having access to the right information in order to minimise the need for patients and service users to repeatedly explain the same information to each person who treats them whilst reducing the administrative burden. There is a balance to be struck between sharing the right amount of information whilst protecting the individual's fundamental right to privacy. This is achieved through the implementation and delivery of well defined, compliant and clear information governance and cyber security measures to correctly handle, process and protect information.

4. Data and Information Principles

Principles are general rules and guidelines, intended to be enduring and seldom amended, that inform and support the way in which an organisation sets about fulfilling its mission. The following section defines the data principles for the Information Strategy that support the mission and are aligned with the Transformation Programme's Digital Strategy.

Information Strategy

It is intended that projects delivering against this Information Strategy will not only follow these data principles but will also create their own complementary subset of principles that provides project specific guidelines for the use of data.

Project specific data principles are provided in Appendix B together with a mapping to confirm adherence to the following set of DHSC Data Principles:

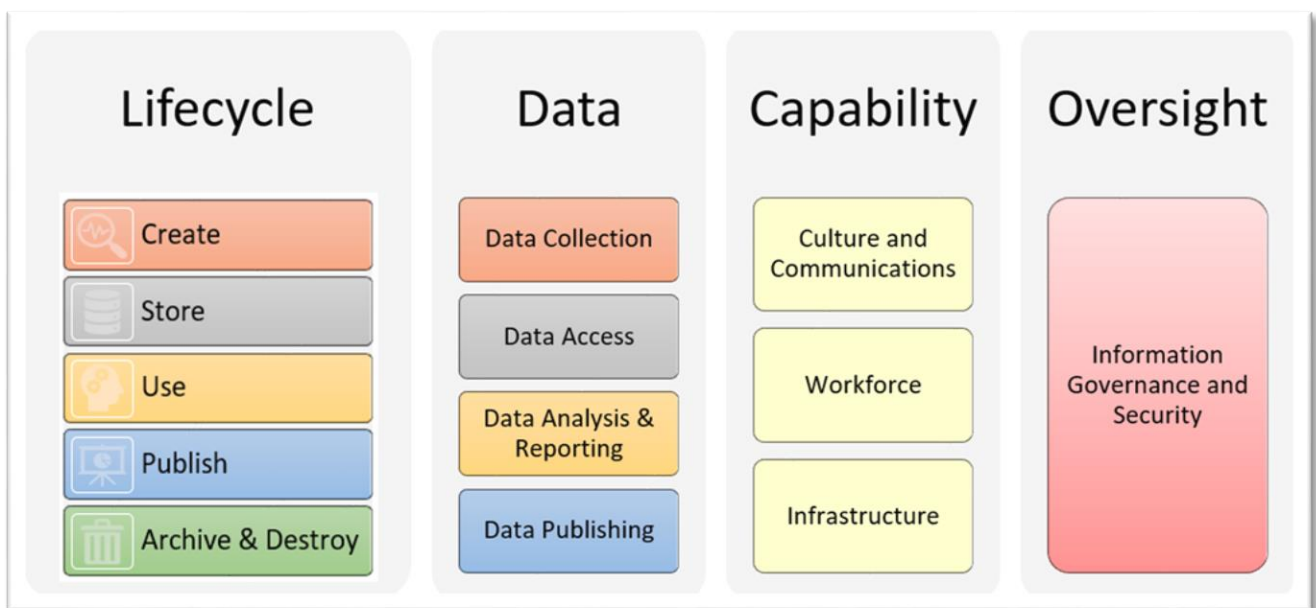
- D1. Service users must be placed at the centre of care and be in control of their own data wherever possible. This includes ensuring that service users have access to their data;
- D2. Data from all health and social care systems should be made available for the provision of management information to the relevant services, subject to suitable permissions and safeguards as per the National Data Guardian's Review of Data Security, Consent, and Opt-Outs and in compliance with data protection legislation;
- D3. Health and care systems must be able to integrate using agreed NHS X open interoperability standards (for example Fast Healthcare Interoperability Resources [FHIR]) ensuring information is shareable along pathways, up and down services and with off-island providers as required;
- D4. Accuracy of data and appropriate access to data is essential in the provision of health and social care and therefore must be explicitly considered in all digital health and social care projects;
- D5. Digital projects relating to data collection must conform to an agreed national clinical coding standard. Systems collecting data from users should be designed to make it easier for the operator to 'get it right first time';
- D6. Robust security measures must be in place to protect data and uphold individuals' privacy: Data Privacy Impact Assessments (DPIA's) must be completed for all changes to the flow of service user information.

The Isle of Man Government Technology Code of Practice (TCOP) provides a key set of Information and Communications Technology (ICT) principles, standards, guidelines and best practices that technical design and delivery initiatives also need to follow in order to comply with the GTS technology standards. Assistance and guidance in using the TCOP or requesting exceptions should be sought from the Isle of Man Government Design Authority.

5. Strategic Objectives

Data is raw, unorganised facts that when processed, structured or presented in a given context becomes useful information. The data lifecycle is the sequence of stages that a unit of data will go through from its initial creation or capture to its eventual archive or deletion. This lifecycle needs to be carefully managed to ensure the correct information is available for use.

The strategic objectives of this Information Strategy build on the vision and mission to ensure the successful delivery of benefits by recognising the value of information to the organisation. The strategic objectives organised thematically below covers the areas of data, capability and oversight that sits alongside the data lifecycle that controls the creation, usage, publishing and disposal of data.



Data Collection

Data collection aligns with the creation of data during the lifecycle. Data enters an organisation either when a user enters it manually or it is acquired from an external source or device such as a sensor or piece of monitoring equipment.

The health data lifecycle starts with the collection and creation of clinical and non-clinical data by the user that is captured, stored and used by one or more systems. These systems, which have evolved organically over time, will traditionally hold information within data silos that are either not visible outside of the system or cannot easily be extracted from systems. The users working on such a system may not fully understand the impact of the data being collected nor aware of the use of data outside of their duties. Data required for other purposes, including planning and quality management, are seriously hampered by the lack of quality information. Improvements are clearly required at the start of the information lifecycle where data is created, collected or identified.

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As a general principle, quality data must be captured as soon as possible and as close to the source as possible, including the service user where appropriate. Whether the information is the result of clinical assessment, procedure or treatment, collecting it at the source ensures that the data is as accurate as possible whilst minimising the risk of data loss. Correcting or augmenting data at later stages in the information lifecycle is inefficient and multiplies the cost of managing the information and risks the introduction of inaccuracies. There needs to be a “get it right first time” ethos with accountability for the quality of data captured and feedback loops and remediation activities when the quality of data falls below a measurable standard.

The following strategic initiatives are required to deliver data collection benefits:

- Improve the quality of data captured at source, particularly for clinical coding, to accurately and fully code all episodes. Ensure coders are trained, suitably qualified and accountable for the quality of the information.
- Develop principles of data collection that ensure the quality of data at source through accountability and specification of standards. Make the entry of key information mandatory and configure system so that users are unable to bypass key data entry fields.
- Design and procure system that make it easier for users to enter the right information. Systems should provide good User Experience (UX) and, where appropriate, make use of innovative technology, such as AI, to facilitate the entry process.
- Collect complete datasets to meet the needs of the Public Health Directorate, DHSC and Manx Care in measuring outcomes. Whilst some datasets do exist, the information is incomplete either because the data is not currently captured, or it exists in external systems. Assess the current Public Health Outcomes Framework and Health Outcomes Framework datasets to identify information gaps in data collection.
- Information standards are critical for ensuring the right information can get to the right people at the right time, in the right way. Information standards should be adopted from the NHS England to provide an agreed set of rules and processes for the consistent capture, processing, managing and sharing of data and information. It is vital that contractual obligations are enforced to ensure the two-way sharing of information with off-island providers in order to realise the integrated healthcare vision. The NHS England vision for digital, data and technology included a sample of international and UK standards required to achieve interoperability including:
 - Unique patient identifiers to ensure safety and continuity of care, and to allow patients to log in to online services (NHS number);
 - Specifications for staff and the public to securely access multiple applications using a single log-in (FIDO, OpenID Connect and OAuth 2.0);
 - Terminology for clinicians to describe interactions with patients (SNOMED CT);
 - Terminology for clinical interactions with patients, for secondary uses such as planning services and medical research (ICD11);
 - Codes that describe medicines and devices in use across the NHS (Dictionary of Medicines and Devices); and
 - A standard for exchanging healthcare information electronically (FHIR)
- Support information requirements for transformational projects that provide strategic sustainable benefit including the New Funding Arrangements Project with the implementation

of activity based costing. Whilst a number of requirements relate to the data standardisation and collection of quality information, there is also a requirement for:

- Adopting the use of an NHS England number as a key patient identifier across all systems to support the unique identification of an individual service user or patient.
- Consistent capture of the information, for example, GPs, hospitals and consultant information that appears differently both within platforms and across different systems. Agreement on codes is required followed by assessment, migration and implementation of data changes.
- Increase the scope of data capture to include and improve information from community and social care.
- Support strategic requirements for the Pathfinders Project for the collection of data to measure whether the care pathway and treatment equates to a desirable outcome. Pathways include Diabetes, Cardiovascular, Cancer, Urgent and Immediate Care, Eye Care, Children with Complex Conditions and Autism.
- Support strategic requirements for the Primary Care at Scale (PCAS) Project for the collection and use of data relating to population, patient care, performance and quality. The following required as a priority:
 - High level population health data that will help identify key areas of need in the system
 - Key performance data that will help identify significant stress points in the system
 - A clear understanding of where current patient records do not join up where there are or clear gaps in the current patient record particularly in the context of aiming to risk stratify the population
 - Assess the use of Read coding in primary care and consider the benefits of adopting dm+d and SNOMET CT standards.
- Perform a maturity assessment on the suitability of any ETL, cleansing, mapping and data warehousing capability. Promote the use of innovative techniques such as streaming by data pipeline to make data available at the right time (or near real-time).
- Oversight and control of the strategic collection and use of information in health by a Chief Information Officer.



Data Access

There is a need to make data accessible to those that need it whether for the purpose of informing the public, providing care or reporting and forecasting. Access to information should be made as easy as possible whilst ensuring the right controls are in place to keep information safe and secure. Only the information required for the specific purpose should be available and, where appropriate, it should be anonymised to prevent individual patient or service user identification. A culture of openness and data sharing within the organisation and with service users and patients should be encouraged.

The following strategic initiatives are required to deliver data access benefits:

- Data and information should be structured to provide a single source of the truth. Data and information access requests should be made through a single point of contact within the Business Management Team with access requests being pre-authorised for the intended usage.
- The Council of Ministers approved the Isle of Man Government Open Data Policy in August 2019 and a range of open data is published on the Government website. The published health open data should be assessed to determine whether it provides benefits of accountability, choice, efficiency, outcomes, customer service and innovation. As more data is collected through implementation of this strategy, consideration should also be given to whether such data can be made publicly available.
- Aggregated data should be anonymised at the source. Where personal information is collected for processing, put the appropriate Data Sharing Agreements (DSA) in place. Review current data sharing agreements and put contracts and agreements in place for data shared between DHSC and Manx Care and outside of the organisations.
- Enable community-based practitioners to undertake field tasks such as seeking specialist support and updating notes in real-time by hosting information that can be accessed via mobile devices. Where such systems are already in use, ensure they provide good UX that encourages users to enter information as close to the source as possible. This will meet the vision of provision of health and social care services in the community whilst reducing delay and improve efficiency for data capture.
- Data sharing between off-island providers and care providers in the Isle of Man should be improved and become part of a contracting expectation.



Data Analysis and Reporting

The processing and analysis of data and information is aligned to the vision of providing the right information that is led by a requirement of measuring performance against Key Performance Indicators (KPIs). Data analysis builds upon data collection foundations that ensure the right information is collected in a way that facilitates further analysis. Analysis of information is more than simply counting numbers. Value of information is realised when it is combined and used for measuring outcome against activity, forecasting needs, predicting trends and facilitating benchmarking against other jurisdictions.

The following strategic initiatives are required to deliver data analysis and reporting benefits:

- Development of a common information processing function that sits across health and social care that is reactive to users' needs and uses modern innovative technology to automate the analysis of data.
- The production of a data catalogue to maintain an inventory of data assets through the discovery, description and organisation of data is vital as it provides the context to enable data analysis. A data catalogue supports other strategic themes including data governance and data sharing by enabling users to find and understand relevant datasets.

- Implementation of a data warehouse to provide an holistic repository of data obtained from across the health and social care system to enable in-depth analysis and reporting of achievement and trends relating to activity, timeliness, quality, outcomes, cost and resource. A data warehouse will provide a single source of trusted reporting data which can be utilised by health professionals, senior managers and regulators alike to create a shared view of service provision.
- Implementation of a performance management system will enable regular reporting against key performance indicators such as waiting times, referral to treatment, re-admission rates, length of stay, mortality rates, resource usage and staffing levels. It will provide a regular and reliable system for the collection, analysis and reporting of data for assessment of the current state and the trend over time. This analysis will inform continuous improvement, the recognition of best practice and the prioritisation of change across the health and social care system.
- Reporting (TBC). Further work on the reporting requirements and structures will be required once a clear picture of the Manx Care System Target Operating Model (STOM) is known. As part of a future System Board assurance framework, it is expected that Manx Care will provide regular quality, finance and performance reports for the delivery of the agreed mandate.



Data Publishing

The publication of processed data is concerned with the dissemination of information to an intended audience. The publication of information on quality and performance is required by the public, DHSC and other stakeholders to know how well any one body or organisation is discharging its core purpose and statutory regulatory duties.

The following strategic initiatives are required to deliver data publishing benefits:

- Support for the future state reporting requirements contained within the Manx Care mandate. Information collected and analysed is required for reporting and publishing across the five themes of quality, finance, leadership, operational performance and strategic change.
- Future state reporting should follow the NHS England Oversight Framework and Health Outcomes Framework whilst satisfying the care and system board requirements.
- The availability of open data can empower citizens and help care providers, service users, patients and researchers make better decisions, spur new innovations and identify efficiencies. Open data should be published in multiple formats to facilitate a 'self-service' approach to data whilst ensuring that appropriate controls are in place to manage the confidentiality of patient and service user data.
- Development of a reporting framework and provision of more management level data reporting to inform decisions. A data sharing framework following best practise should be developed that defines the flow of information from data source, through processing to a required output.



Culture and Communications

The collaboration and the breakdown of siloed working practices between care settings and between service users and health and social care staff should be encouraged to achieve better outcomes through better communications and engagement. With a focus on prevention rather than intervention, communication, collaboration and better use of information are key enablers.

The following strategic initiatives are required to deliver culture and communications benefits:

- Promote the collection of data at source through better communication of the benefits of this approach. The approach should be facilitated by the use of digital systems as standard rather than a reliance on recording and transcribing.
- Information is an asset that has value to an organisation. Embedding a culture of openness and data sharing for the benefit of the patient, service user and organisation are critical to the successful delivery of change.
- Ensuring the right data is available to the right person at the right time is important as it allows a person to work in an efficient manner. This is enabled through the appropriate data access initiatives. The organisation is responsible for setting and promoting a continuous improvement ethos that empowers employees to highlight issues that, when solved, can lead to efficiencies in work processes.



Workforce

Digital working requires building an information culture where users understand the benefit and value of information. Key enablers to delivery are strong leadership, cross-organisation partnerships, internal environment, clear processes and procedures, clear information flows and information management.

The following strategic initiatives are required to deliver workforce benefits:

- Identify the skill and training requirements of staff. As care moves closer to home, there will be a requirement to provide more skilled resource within the community requiring a different set of skills.
- Perform an assessment to identify existing talent and skills available against those required to support the delivery of the digital and data strategy.
- Promote and review lean ways of working by reviewing and identifying parts of the organisation that provide value and removing inefficient activities and processes.
- Within the information domain, reduce the number of systems (and therefore the support and integration overhead) and streamline processes whilst ensuring they are optimal, robust and clinically safe.



Infrastructure

The piecemeal adoption of technology has led to a fragmented health and social care information system that holds information in different ways and are not well integrated. The right technology needs to be put in place to join up care in hospitals, surgeries and the community so patients and service users are not having to repeat information and health professionals and managers have access to the right information. To be efficient, systems need to be able to communicate securely using agreed open standards.

The following strategic initiatives are required to deliver infrastructure benefits:

- Perform an assessment of the existing technological capability to support transformation and strategic objectives. There is an assumption that investment will be required for new systems as well as an ability to adopt, make available and secure those systems.
- A set of non-functional requirements that supports the procurement of new systems must be created. This set of requirements that will guide all future digital procurements must include requirements for adherence to health standards to support the integration and interoperability of systems, resilience of systems for 24x7 processing, making best use of cloud services and information security standards and assurances. Non-functional requirements for UX are also key to improve the adoption of new technology.
- A single overarching system should be implemented that acts as an integrated repository of information to provide appropriate staff from all parts of health and social care service access to the key data from each relevant system used in the delivery of care. A 'Manx Care Record' will deliver the benefits of better care based on sharing the right data, at the right time, in the right way. The Manx Care Record would not replace the existing systems that are necessary to support the detail of day to day activity in specific care settings, but it would enable key summary information to be made available readily and rapidly from one place.



Information Governance and Security

It is recognised that the current absence of a comprehensive approach to data sharing presents a reputational legal and financial risk to DHSC and Manx Care. The lack of governance around data sharing was an issue raised in the Sir Jonathon Michael report, and is acknowledged by the DHSC Information Governance (IG) team.

Information sharing is vital to ensure that the DHSC can liaise with others external partners, for example, Manx Care and 3rd party providers, to ensure that the right information is received by the right parties for the best interests of patients and service users. However, there has historically been insufficient control over data flow from DHSC to third parties. Any such arrangements which did exist were not universally updated following the implementation of new data sharing regulations (such as GDPR), or in some, possibly many cases, DSAs were not put in place.

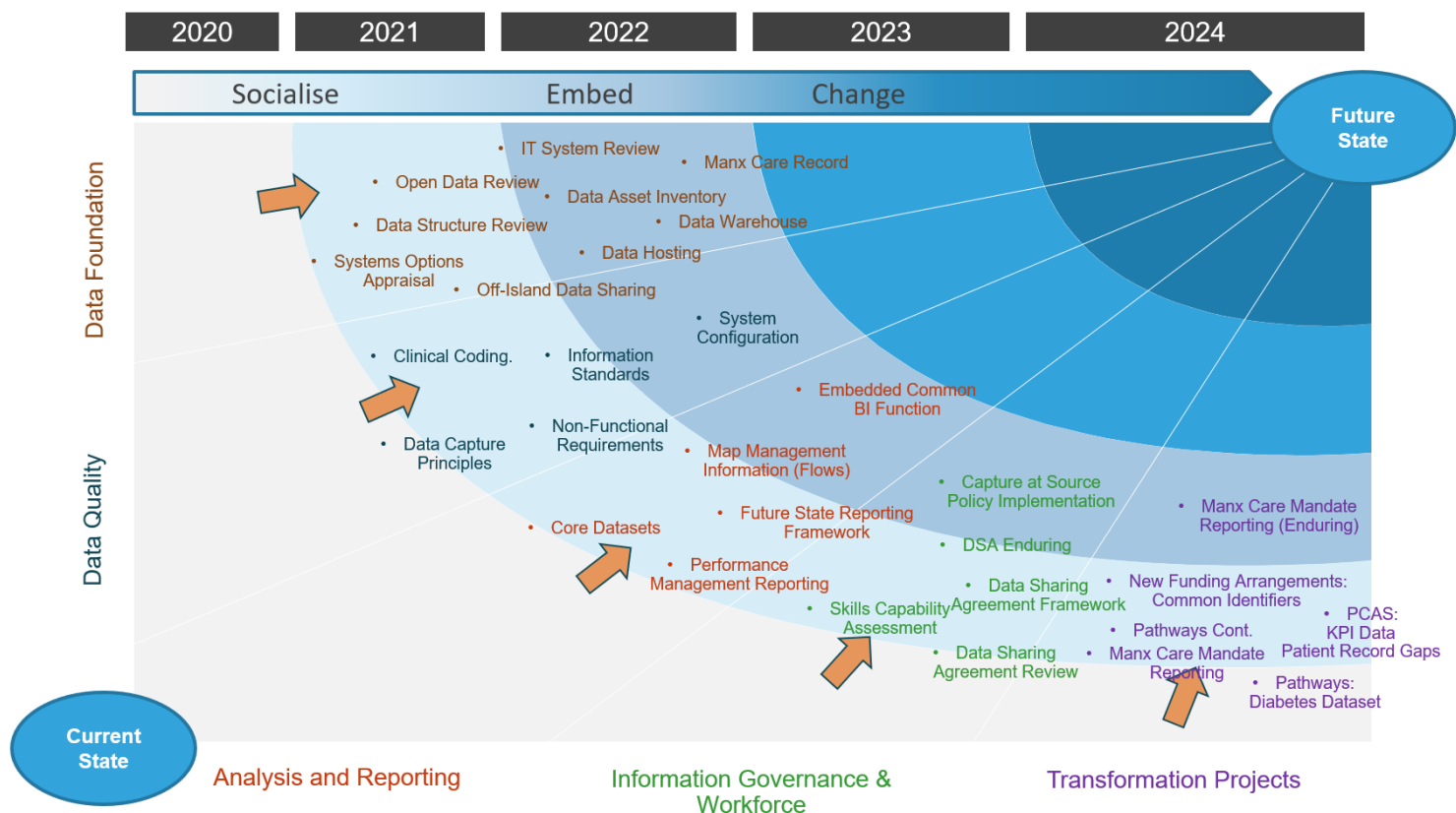
The following strategic initiatives are required to deliver information governance and security benefits:

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- In order for new DSAs to be created and processed in a timely manner, a quality assurance framework for DSA requirements needs to be developed with the DHSC's Data Protection Officer (DPO). This will allow the DSAs to be written with the requirement on the DPO to check the quality assurance framework has been adhered to and approving the documents.
- All areas within the DHSC's directorates plus additional areas (such as corporate services, and Public Health) will need to be contacted to ascertain what data should be shared. The total number of areas within DHSC that needs DSA is unknown, but it is estimated there are a total of 150-200 areas to potentially review. Some of these areas will have no DSAs, whilst others may have multiple.
- Review DSAs to identify agreements that require writing or rewriting to be in line with the defined and agreed quality assurance framework. Existing DSAs that do not need amending will only need to be collated and stored centrally. Once written, all DSAs will be transferred to the IG team for central storage and management.

6. Information Strategy Roadmap

The following indicative roadmap sets out the key outcomes to be delivered in order to support the requirements of the Programme projects, achieve the strategic objectives of this Information Strategy and set the foundation for the sustainable delivery of transformed Health and Social Care services.



Information Strategy

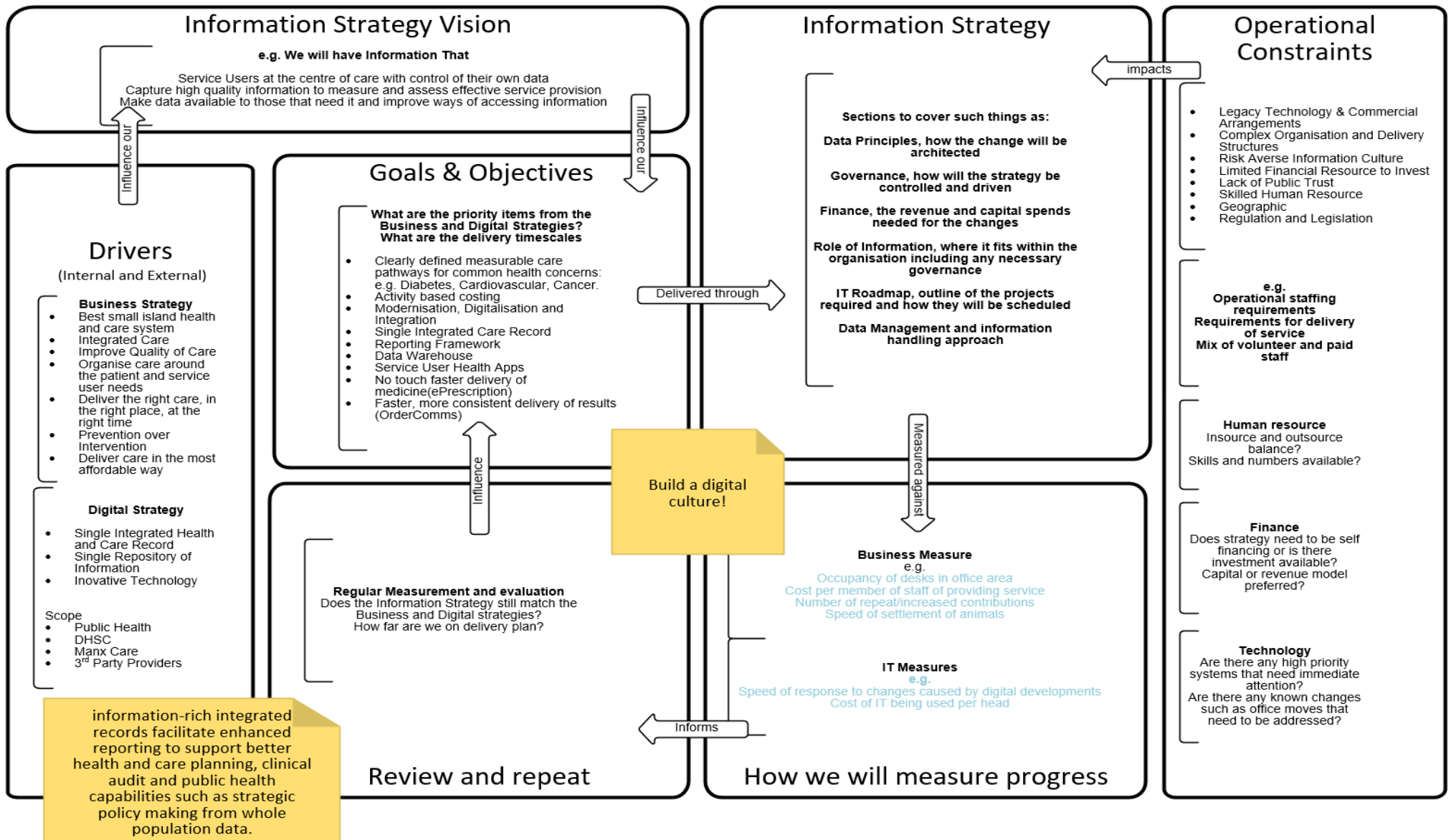
Theme	Category	Description
Data Foundation	Data Warehouse	Assess capability and produce business case
Data Foundation	Information Oversight and Control	Provide information oversight and control
Data Foundation	Data Architecture/Structure	Structured for single source of the truth Review data access request procedure
Data Foundation	Open Data	Assess to determine if goal of open data policy is being met for Health.
Data Foundation	Data Architecture/Structure	Hosting data for mobile access Review of mobile apps for effectiveness (linked to UX)
Data Foundation	Data Access and Sharing	Improve data sharing with off-island through contracting expectation
Data Foundation	Open Data	Publish open data
Data Foundation	Ways of working (culture)	Communication of policy for data capture at source
Data Foundation	Ways of working (culture)	Embed culture of data sharing and openness
Data Foundation	Ways of working (culture)	Promote continuous improvement ethos for information
Data Foundation	IT System Review	Assessment of information systems with aim of reducing number of systems
Data Foundation	IT System Review	Perform an assessment of the existing technological capability to support transformation and strategic objectives.
Data Foundation	NFRs	NFRs to guide all future digital procurements must include requirements for adherence to health standards to support the integration and interoperability of systems, resilience of systems for 24x7 processing, making best use of cloud services and information security standards and assurances
Data Foundation	Data Asset Inventory	Support data governance, data sharing, data analysis
Data Quality	Clinical Coding	Improve the quality of data capture for clinical coding to accurately and fully code all episodes. Note: Action is dependant on decision on hospital clinical coding options appraisal. GP clinical coding is also an issue as templates may not be being used in the right way.
Data Quality	Data Capture Principles	Develop data capture principles to promote data quality at source through accountability and standards.
Data Quality	Design and Procurement NFRs	Design and procure systems for easier entry of information. Make use of innovative technology.
Data Quality	System Configuration	Configure systems to make entry of information mandatory and prevent bypass of key data entry fields.
Data Quality	Information Standards	Adopt Information Standards for consistent capture, processing, managing and sharing of

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		data. Contractual obligation for 2 way sharing with off-island providers.
Core Datasets	Assessment + Improvement	Collect complete datasets to meet the needs of Public Health and DHSC in measuring outcomes. Assess the current PHOF and HOF datasets to identify information gaps in data collection.
Project: New Funding Arrangements	Data Requirements	Adopt use of NHS number as key identifier across systems. Consistent capture of date using common identifiers e.g. consultant ID. Increase scope of data capture and improve existing data.
Project: PCAS	Data Requirements	Capture population health data. KPI data to identify stress points in system Identify gaps in patient records Coding standards - Read coding
Project: Care Pathways	Data Requirements	Core dataset + individual dataset for each pathway (Diabetes, cardiology, eye care etc.)
Project: Manx Care Record	Manx Care Record	A single overarching system should be implemented that acts as an integrated repository of information to provide appropriate staff from all parts of health and social care service
Data Analysis and Reporting	Performance Management	Health performance KPI reporting to inform continuous improvement and prioritise change.
Data Analysis and Reporting	Manx Care	Manx care quality, finance and performance reporting against TOM
Data Analysis and Reporting	Manx Care	Manx care mandate reporting quality, finance, leadership, operational performance and strategic change.
Data Analysis and Reporting	System Board	System Board reporting follow NHS Oversight and HOF.
Data Analysis and Reporting	Management Information (flows)	Management information for decision making. Define flow of information from source, processing to output.
Data Analysis and Reporting	Common Function	Develop common information processing function across health and social care
Information Governance	Data Sharing Agreements	Review of Data Sharing Agreements
Information Governance	DSA Framework	Allow the DSAs to be written with the requirement on the DPO to check the quality assurance framework has been adhered to and approving the documents.
Information Governance	DSA Requirements	Ascertain what data should be shared.
Information Governance	DSA Refresh	Identify agreements that require writing or rewriting to be in line with the defined and agreed quality assurance framework
Information Governance	Data Asset Inventory	Support data governance, data sharing and data analysis.

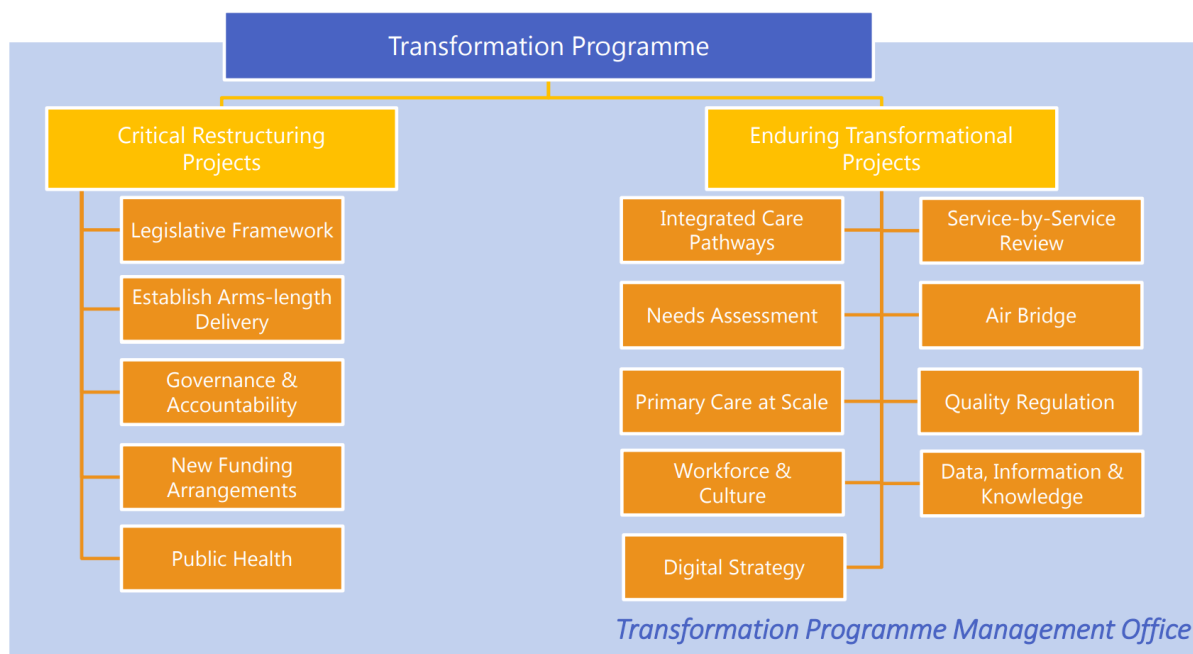
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Staffing and Resource	Skills (to-be)	Identify required roles and skills gaps
Staffing and Resource	Skills (as-is)	Assessment of current capability
Business Change	Lean	Identify where value is provided and remove inefficient activities and processes



Appendix A – Overview of the Health and Social Care Transformation Programme

The Health and Social Care Transformation Programme is made up of 14 projects split into two categories; Critical Restructuring Projects and Enduring Transformational Projects. Each project is designed to deliver on one or more of the independent report's recommendations. A summary of each project is provided below.



Critical Restructuring Projects

Improve Legislative Framework:

The Final Report identified a number of areas where there are gaps in the law necessary to underpin a safe and responsible health and social care service for the Isle of Man, for example around clinical governance and prescribing. In addition, some of the recommendations of the review will require legislative changes to enable their implementation, for example, new primary legislation will be required to establish Manx Care and amendments to legislation may be required following the decision on how to fund the increasing cost of the health and social care service in the future. This project will determine the need for new or amended legislation and work with the necessary stakeholders to progress its introduction into statute.

Establish Arms-length Delivery of Health and Social Care Services:

This Project will create a new organisation "Manx Care" with responsibility for delivering all health and social care services on the Island as a public sector arm's length body, run by a Board appointed by Government and approved by Tynwald. This will facilitate the separation of the strategic planning and policy making, which will be retained by the DHSC, from the delivery of services by Manx Care – which was a key recommendation of Sir Jonathan Michael's report.

Governance and Accountability Framework:

Health and Social Care on the Island requires a consistent approach to Governance and Accountability. Sir Jonathan's review identified the lack of this as being a significant inhibitor to the provision of consistent quality services. This project will seek to implement a joined-up and

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structured approach to Governance and Accountability across all responsibilities and activities of DHSC including those which are delivered by other organisations including Manx Care, the third sector, private sector providers and off-Island providers, supported where necessary by legislation (though delivery of the legislation itself is covered elsewhere).

The recommendations included the need for the introduction as part of the overall improvement of Clinical Governance of a statutory duty of care for all those delivering health and social care services, including social care staff.

New Funding Arrangements:

The aim of this project is to achieve a health and social care system which plans for the future, which is affordable, financially sustainable, and delivered to an agreed set of standards, contracts and mandate through four strands of work: Baseline and budget setting (January to August 2020), Future Funding (January 2020 to April 2022), Longer-term planning (July 2020 to April 2023), Implementation (April 2021 to September 2024).

Transfer of Public Health Directorate to Cabinet Office:

The aim of this Project is to enable the Public Health Directorate to comprehensively fulfil its advisory and guidance function to the entirety of the Isle of Man Government through the transfer to the Cabinet Office. Phase one of the project focused on the transfer of the Directorate (now complete) and phase two will embed the transition.

Enduring Transformational Projects

Undertake Needs Assessment, Undertake Service-by-Service Review and Design and Implement Care Pathways:

The Undertake Needs Assessment, Undertake Service-by-Service Review and Design and Implement Care Pathways projects are closely related and interdependent projects that jointly consider what are the Island's health and social care needs, what is the optimum care pathway and what is the optimum service model.

The initial phase of these three projects is to join together in a "pathfinder" process, which will be used to develop and test the process for review and new service design. Pathfinders would be phased to test the approach to these projects within certain services before wider adoption.

Implement Air Bridge:

To deliver an enhanced air bridge service that meets the needs of the Isle of Man citizens and compliments and builds upon the current fixed wing provision for air ambulance transfers.

Primary Care at Scale:

The Project will co-design and implement a new strategy and model for Primary Care on the Isle of Man. Core to this strategy will be the establishment of a model that allows Primary Care services to be delivered collaboratively and at scale, providing a sustainable, high quality, service user-centred service.

Data, Information and Knowledge:

This Project is necessary to deliver a coordinated approach to:

- specifying what data should be collected across the health and social care system (from digital systems and or manual processes)

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- determining how that data should be collected, verified, aggregated, interrogated and reported
- delivering the necessary changes to implement the specified changes

Digital Strategy:

The review recognised that there is already significant progress being made in relation to improving digital services supporting health and social care on the Island. Effective and flexible digital systems and reliable, shared information are both critical components of an integrated health and social care system. This project will consider the existing Digital Strategy in detail and determine how that could be accelerated, re-shaped and expanded to support the wider transformation programme.

Workforce and Culture:

This Project aims to introduce a new workforce model which enables the joint optimisation of the social/people and technical/process elements of culture that create a high performing organisation.

Implement External Quality Regulation:

This Project will ensure that rather than an ad-hoc approach to inspection of services, there is a consistent, independent and systematic approach to the inspection of all services across health and social care on the Isle of Man to an agreed set of standards as well as a rigorous process to understand, critically assess and act on the findings.

Appendix B – Project Data Principles

The following section captures the Transformation Programme Projects' data principles and provides a mapping to the strategic data principles to ensure alignment with the strategy.

DN: The following contains the New Funding Arrangements data principles that have been developed to guide the project in understanding the data needed to improve the capability of measuring performance, reporting, and forecasting costs. It is expected that data principles will be developed for the Pathfinders, PCAS and Establish Manx Care projects to guide the indicators required for measuring performance, reporting and forecasting quality.

New Funding Arrangements Data Principles

A key part of the New Funding Arrangements Project is to develop Patient Level Information and Costing (PLICS) using the English approach as a standard. The Project's principles set out below derive from experience gained whilst carrying out patient level activity-based costing for acute services and preliminary investigations into data availability in other areas of the DHSC.

- N1. Individual service users must be identifiable consistently as a unique person within all records that they appear, but it must not be possible to identify the person;
- N2. Data, from whichever source, must be capable of being combined with data from other sources using a common service user identifier.
- N3. Data must identify the quantity of a particular activity;
- N4. Data must be consistently recorded across all databases using a common set of values that enable the source data to be combined for analysis;

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N5. Activities must be identified using a pre-determined list of activity codes to uniquely and consistently identifying different activities;

N6. Each record must identify the date and time that the recorded activity took place,

Mapping Data Principles

The following table maps the DHSC and Project specific principles to a set of collective data principle themes developed using The Open Group Architectural Framework (TOGAF) approach. This mapping is critical for ensuring that the Project data principles are aligned with the Information Strategy.

Data Principle	Detail (Health Related)	Map to DHSC and Project Principles
Data is an Asset	Value of data to health in commissioning, forecasting, reporting and managing.	D1, D2, N3
Data is Shared	Timely access to accurate data. Collection and sharing of the data.	D1, D2, N2
Data is Accessible	Improve the ease with which the right users can obtain the right information.	D1, D2, D4
Data has Trustees	A trustee is responsible for accuracy and currency of the data and accountable for the quality of the data.	D4
Data is Standardised (Common vocabulary and Data Definitions)	Data is defined consistently. Common controlled vocabulary. Use of health standards e.g. HL7, FHIR, ICD-10, SNOMED.	D3, D5, N1, N4, N5, N6
Data is Secured	Data is protected from unauthorized use and disclosure. Open sharing of information and the release of information via relevant legislation must be balanced against the need to restrict the availability of classified, proprietary, and sensitive information	D6
Information is Managed and Governed	Information assets are stored, managed, protected and used in a manner commensurate with their value.	D2

Version Control

Version	Date	Author	Changes
0.1	27/04/2020	Damian Bevan	Author version
0.2	06/05/2020	Damian Bevan	Author version
0.3	15/05/2020	Damian Bevan	First draft for team review
0.4	29/05/2020	Damian Bevan	Second draft incorporating feedback
0.5	02/06/2020	Damian Bevan	Third draft incorporating feedback from second review.
0.6	11/06/2020	Damian Bevan	Transformation Programme review feedback
0.7	05/08/2020	Damian Bevan	Updates to roadmap
0.8	18/09/2020	Damian Bevan	Update to governance model and service users