This paper is presented to the January 2024 Moray IJB to give an update on the progress of the Moray Growth Deal, Rural Centre of Excellence for Digital Health and Care Innovation

This £5 million UK Government funded programme of the Rural Centre of Excellence (RCE) Research and Development (R&D) programme as part of Moray Growth Deal, commenced in late 2021 with the ambition to create a unique ecosystem in the Moray region to foster economic development and create jobs through the creation of a physical Demonstration and Simulation environment (DSE) at UHI Moray, underpinned by a virtual R&D infrastructure, five living labs and a robust skills and workforce development programme. Working closely with the citizens, health and social care Moray, NHS Grampian and third sector organisations, the living labs methodology uses co-design approaches to validate and address key national and local strategic priorities in order to release clinical and care capacity and make services more accessible enabled by digital to meet targeted demand, and to improve the health and wellbeing outcomes for the citizens of Moray. http://www.moray.gov.uk/moray_standard/page_114144.html

The image below provides a visual representation of the R&D infrastructure, assets and Living Lab (LL) R&D themes and the skills programme being progressed within the RCE.
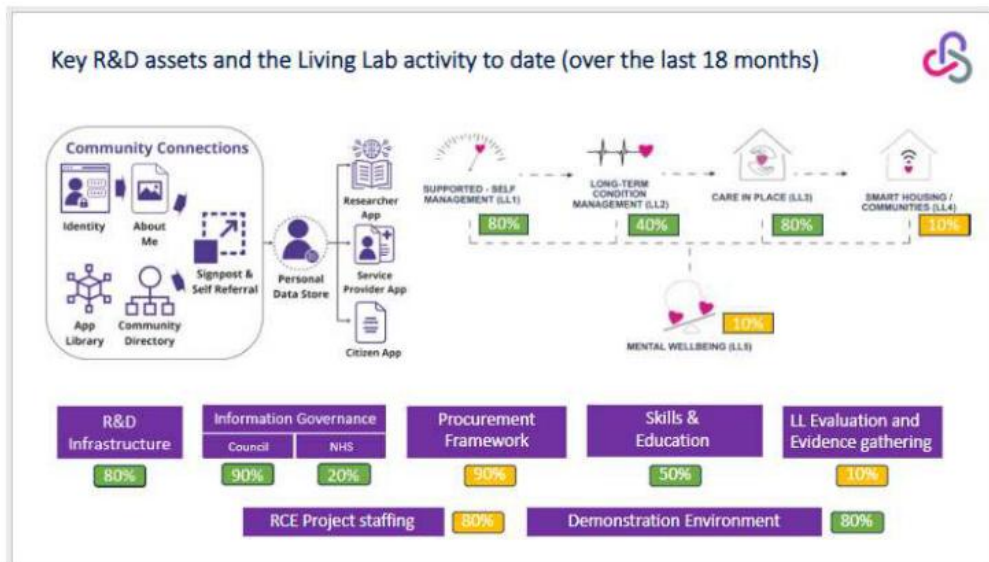

Image 1: Key R&D assets and the 5 Living Lab (LL) Themes

RCE Activity Update December 2023 -January 2024
Programme Update

DHI are awaiting confirmation this month from Scottish and UK governments of the approval of a change control request submitted in November 2023. If approved, this will allow the project to run until May 2026 with a new budget profile and will enable additional and more complex R&D assets to be developed along with maturation of those currently being progressed. As outlined below in figure 1, this will potentially see the development of a smart community tool with eventual AI capability to support both individual and population management through the collation, monitoring and analysis of holistic data held by the individual through a personal data store. By establishing participating citizen's normal health and functional baseline, it is envisaged that the analysis of ongoing consented data sharing will help to identify early indicators of change and trigger self-management signposting or intervention as appropriate to maintain health, wellbeing, and independence and reduce hospital admissions. The integration of data from health, care, third sector, housing and personal sources into a single analysed platform is an internationally unique approach and believed to have significant economic value for the Moray region through scalability potential.
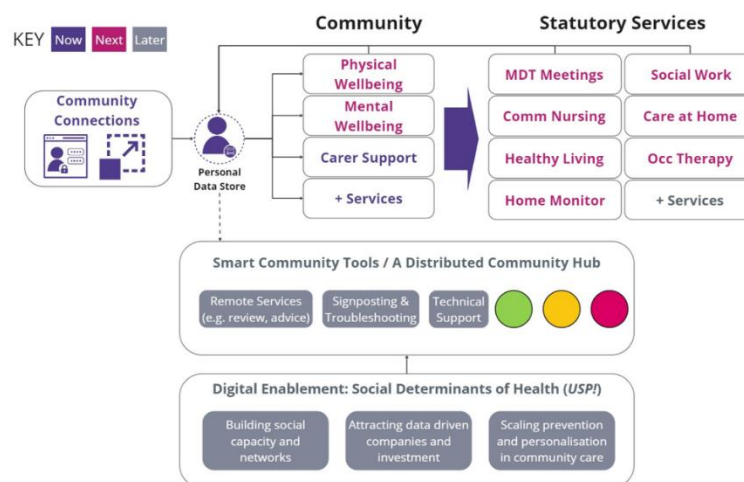

Figure 1: Proposed RCE asset integration model (subject to change control approval)

Living Lab Updates:

LL1 Supported Self- Management
Final iterations and user testing via the Dietetic service are being completed for the weight management platform. The team are awaiting approval of the Data Protection Impact Assessment (DPIA) submitted to NHS Grampian, as this is necessary to move to live testing, this may delay the project moving to the real-world evidence stage in February 2024. This has been raised as a project risk and mitigations are being explored. The delivery working group now meets regularly, and work continues to develop the evaluation framework.

 LL2 Long Term Condition Management (NHS)
No bids were received following the first call on the Dynamic Purchasing System (DPS) which sought industry partners to develop a solution to tackle access deprivation with an initial clinical focus of Type 2 Diabetes. Feedback has been sought from those who have registered for this procurement lot and is being analysed to inform an options appraisal to identify how best to proceed.

LL2 Long Term Condition Management (Community)
Procurement documentation is being prepared for this pathway, which focuses on the development of digital tools to support the Community Occupational Therapy Service. A rapid pitch went live December and can be viewed here: Rapid Pitch Open Challenge - Occupational Therapy Digital Assessment & Triage to support community care | Digital Health & Care Innovation Centre (dhi-scotland.com)   A call to industry via the DPS is planned for February 2024, with the focus on tools to support self-assessment and digital triage of referrals. The proposed future state can be seen in figure 2.
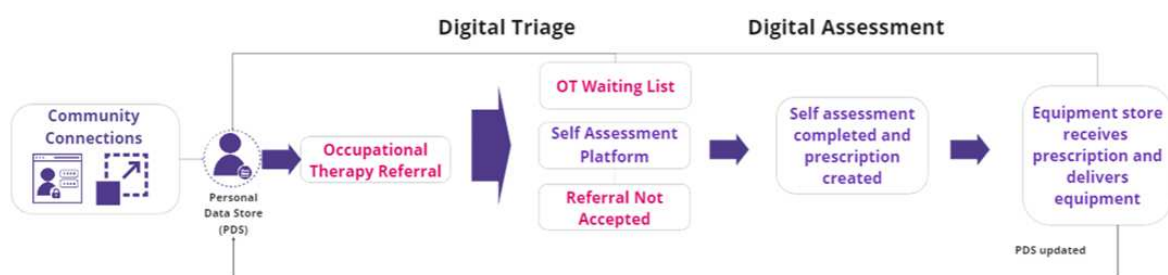

Figure 2: Proposed future state map

LL3 Care in Place
User testing has now been completed, with a final iteration of the Community Connections platform and personal data store assets in progress. This living lab will move to a phased real world evidence stage in February 2024 for a minimum of 6 months and will run in the Forres and Lossiemouth areas, supported by the west community care team and Quarriers. The evaluation framework continues to be developed.

LL4 Smart Housing

A roadmap and scope for this living lab will be confirmed subject to approval of the change control request. There will be two pathways developed in parallel:

1. Smart Housing Specification -

Define and initiate work is underway for this living lab, with work commenced on developing an asset for the DSE in Elgin to demonstrate the benefits of the proactive and preventive use of combined telehealth, digital telecare, activity monitoring, environmental monitoring and home consumer devices. This will include an evidence-based appraisal of devices on the market or at testing stage of development, to create a smart home specification for testing in a real-world environment monitored through the development of a functional prototype of the DSE simulation. Following evaluation, this will be used as the basis to develop a state-of-the-art specification for new build smart enabled properties and prototype for testing ahead of the deployment into Leanchoil Trust site properties by the MGD Housing Mix project team in 2027/28

2. Smart Communities -

This pathway will take forward the smart housing platform asset and integrate this into a holistic AI supported data platform to support individual and population management as outlined in figure 1. Procurement routes to establish a consortium to develop this complex asset are currently being explored

LL5 Mental Wellbeing

It is likely that the following two distinct pathways will be developed subject to the change control request approval:

1. Mental wellbeing (MWB) pathway to develop tools and social prescribing linked to the early Connected Communities platform and personal data store to support early intervention and self-management

2. Mental health (MH) pathway to develop digital tools to support an aspect of statutory clinical services to be confirmed. Data produced from this asset will be integrated into the model outlined in figure 1

Moray Frailty Work

The RCE team are contributing to the HIS led project though representation on both the strategic and community H&SC working groups, while enabling knowledge exchange from broader DHI frailty work. Alignment and utilisation of the RCE R&D activity and assets will compliment this workstream and allow for the inclusion of digital tools to enhance the citizen and clinical experience. Digital opportunities within the Realistic Medicine, MEOC tool, Primary Care, and early identification of frailty are currently being explored.

Skills

A successful and well attended SkillsFest event was hosted by the RCE on 23rd November 2023 at UHI Moray. With a packed agenda featuring keynote speakers and a series of workshops, this also included a soft launch of the recently developed micro credential courses for carers.

The academic call seeking a partner to undertake a review of workforce training tools and identify gaps has been awarded and contracts are being finalised. This will inform the scope of further skills development calls in 2024.

Communication and Engagement

A refreshed communication strategy and sector specific plans have been developed and a working group has been set up to progress the delivery plan. A key area of the strategy outlines the need for a partnership approach between DHI, H&SCM, NHSG and third sector to develop workforce and citizen readiness for adoption of digital assets.

A full schedule of events to build awareness of the demographic need for change, and opportunities to participate in codesign to shape future assets is being finalised for 2024.

Evaluation

A framework for the academic evaluation continues to be developed by UHI to capture the integrative and living lab specific outcomes across the whole programme. Qualitative data and evidence.

Sustainability

The sustainability of the RCE will be a key focus in 2024, supported by a working group with a range of bids underway to ensure further funding is leveraged into the RCE in preparation for the end of the UK Gov funding period for RCE. Preparation and discussion around service readiness and needs for asset adoption continues to be progressed with H&SCM and NHS Grampian.