



Digital Health & Care
Innovation Centre

Digital Health & Care Innovation Case Study

Moray manages personal health data with Archangel



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Background

The Rural Centre of Excellence (RCE) for Digital Health & Care Innovation in the Moray region, led by the Scotland-based Digital Health & Care Innovation Centre (DHI), is developing an R&D portfolio of five projects.

These cutting-edge projects are taking a holistic approach, interconnected by an underlying technical infrastructure to enable the generation, collation and analysis of person held data to provide proactive insights to both the user and the services that support them on multiple levels.

The aim of this particular project was the multi-source generation and collation of holistic data based on the social determinants of health via a personal data store into an AI enabled platform. The collation and analysis of such holistic data is internationally unique and innovative with the potential for significant citizen and service impact through its capability to generate individual and population level insights, enabling enhanced self-management, early intervention and targeted resources.

RCE procured technical architecture and development time from a number of industry partners with two key companies, Archangel and Mydex CIC, collaborating on specific aspects.

Our solution

Responsible for creation and secure use of a personal data store, Mydex CIC are iteratively developing the content and question sets through codesign and user testing to enable the individual and those who support them to create a rich and personal record of their history, circle of care and “about me” information.

Responsible for the first phase of the population stratification platform, Archangel are expanding their current data source devices to include, telehealth, telecare, activity monitoring, IoT and consumer devices, allowing the generated data to be collectively analysed in an AI enabled dashboard.

The dashboard will establish the individual’s baseline data and identify pattern changes within prescribed personalised parameters, giving detailed insights into changing status across physical and mental health and functional levels. Through the generation of alerts, these changes can be triaged quickly by the service provider and action taken to minimise escalation.

Through research, codesign and user testing, a specification of recommended devices for use in smart housing and telecare provider services will be created and incorporated into the Archangel pathway.

Implementation and impact:

The digital assets being developed have come from insights gained through codesign at all stages of the RCE innovation process.

General and targeted citizen and workforce engagement and information outlining the need, opportunity and benefit of this digital innovation is essential to ensure usage once adopted.

The results

There's a wide range of anticipated benefits from this innovation for citizens and their carers, health and social care organisations and third sector/community bodies.

The end user is empowered to remain at the centre of navigating their personalised journey with the ability to contribute to their data and choose to share to access resources more easily without the constant need to repeat their story.

It provides smart suggestions of services, information or tools to enable self-management and solution, choice, and informed decision making and provides personalised support for informal carers.

The analysis of holistic data provides insights and alerts patterns of changing medical, functional and mental health over a few days based on the individual's digitally established baseline and personalised protocol.

The innovation creates capacity within overstretched statutory services, through prevention, allowing specialist resources to be directed to those identified with the greatest need.

Project was the winner of TSA's ITEC 2024 award for Up-and -Coming TEC Innovation.



Up-and-Coming
TEC Innovation

Conclusion

This innovation enables user-consented sharing and acceptance of holistic information via a PDS across multiple services, currently limited by information governance and system integration capabilities. That broad data set can then be analysed to generate insights that are not currently possible.

Archangel CEO Tom Morton commented: *“Ultimately the innovation delivers a healthier population with increased personal responsibility for their own health and wellbeing, self-managing where possible through digital access to tools, services, and information.”*

“It enables professionals to view or receive information via the PDS to understand the user’s personal story, chronology, circle of care and current needs to support triage, prioritisation and intervention.”

“Archangel also delivers analysis of personalised holistic data to stratify the population to enable early intervention, increase hospital at home management and minimise escalation to unscheduled and emergency interventions in primary and secondary care services.”

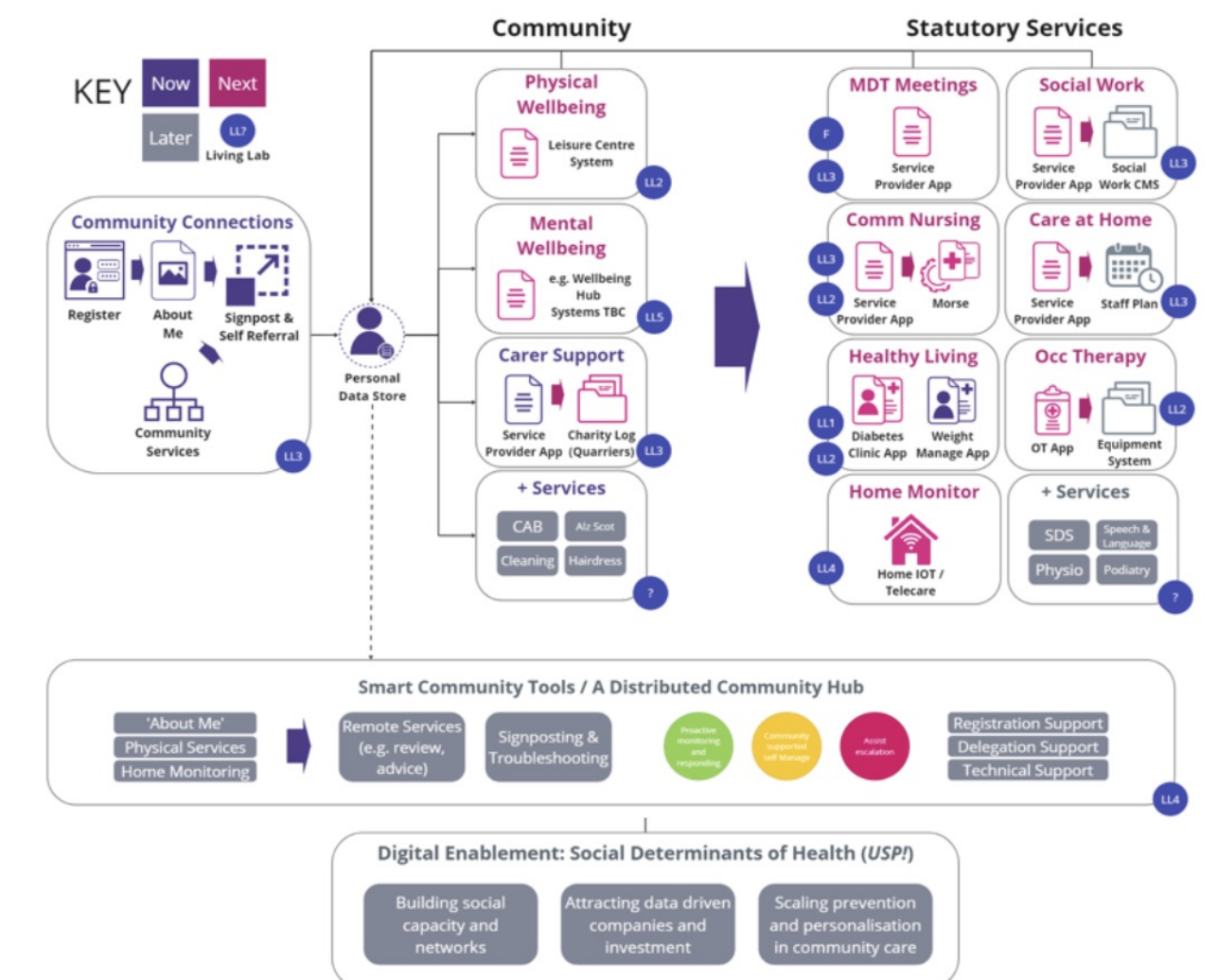


Figure 2: The integration of a personal data store and a population stratification platform



If you want to find out more about the case study or how our platform could benefit your organisation then get in touch

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