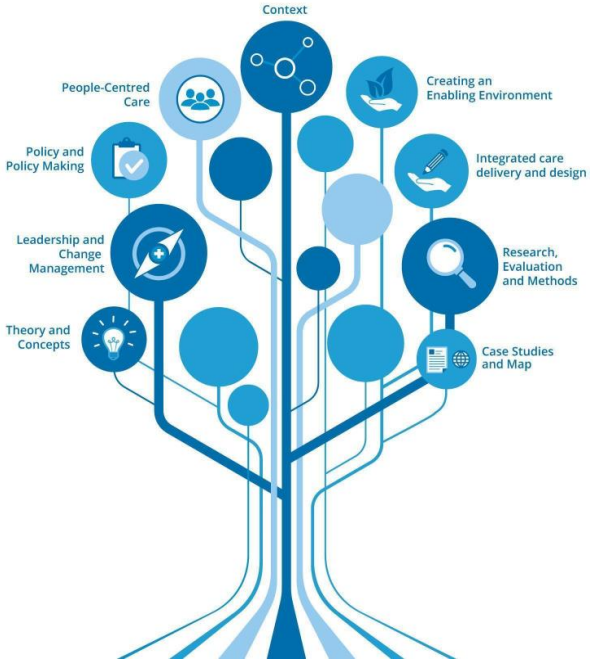
Integrated Care Matters

Proactive, Personalised Digital Care and Support

Knowledge Resource



About the information

The information provided in this document is intended to support the Integrated Care Matters webinar series.

Where possible, we select evidence that is published open access, and provided links to the materials referenced. Some are identified as author repository copies, manuscripts, or other copies, which means the author has made a version of the otherwise paywalled publication available to the public. Other referenced sources are pdfs and websites that are available publicly.

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Appello (2020) 6 technology enabled care services trends you will see accelerate in 2021
The emerging trends are: digital or internet enabled services – enabling housing staff to work from home, whilst maintaining visibility of property and customers, enabling staff to remotely communicate with residents, supporting residents to maintain their social networks, providing deeper insight into customer requirements, enabling more personalised support; smart homes will build from digital foundations; data will drive decision intelligence; collaboration and knowledge sharing will drive innovation; acceleration to cloud-based platforms; and flexible payment models will gain traction

Association of Directors of Adult Social Services (2022) Digital transformation in social care: How to get it right
The paper argues that social care leaders need a detailed understanding of the outcomes they want to improve, or efficiencies they want to make, and how technology can meet these aims, in order to successfully lead change programmes, commission solutions prudently and validate new approaches; digital solutions need to be introduced to staff with a compelling narrative and underpinned by training; technology needs to be interoperable with other systems and easily accessible to staff; collaboration and joint-working is key help shape the design and to help scale-up projects; and transparent conversations and a robust approach to information governance is needed.

Bul, K et al (2020) From development to exploitation of digital health solutions: lessons learnt through multidisciplinary research and consultancy Journal of Enabling Technologies, Vol. 14 No. 4, pp. 273-279
his viewpoint paper provides an overview of lessons learnt throughout the whole cycle of development to exploitation of digital solutions in health and wellbeing settings. This paper aims to address learnings that can be applied to all digital health technologies, including assistive technologies, apps, wearables, medical devices and serious games.

Centre for Digital Therapeutics
A research and development group focused on building novel digital therapeutics for chronic disease management. They generate cutting-edge technology to power new models of care that bring peace of mind to patients and their families. Their work crosses the continuum of innovation between technology and healthcare, from ideation through to impact.

DigiFest22
The themes and related topics for DigiFest22 reflect current priorities relating to digital health, housing and care and will consider the role, impact and challenges for digital health and care in relation to these cross-cutting themes: sustainability - making change sustainable in digitally enabled services; integration and collaboration; how digitally enabled services can support recovery and reform; empowering individuals and communities with digital health and social care.

digitalhealth (2020) Remote monitoring and self-care
How the NHS can utilise and share such information to improve patient experience and empower them to manage their health better.

Digital Health & Care Scotland Technology Enabled Care (TEC)
The programme focuses on citizen-facing solutions where outcomes for individuals in the home or community settings are improved with simple technology and devices. Digital options are being applied across health, care, and housing settings. The aims are to empower citizens to better manage their health and wellbeing, support independent living and deliver access to services through digital options. This includes an appropriate focus on service design, re-design, digital skills, and citizen engagement to promote and support the scale-up of digital services.

Doyle, J et al (2017) Designing a Proactive, Person-Centred, Digital Integrated Care System International Journal of Integrated Care 2017;17(5):A211
ProACT, a Horizon 2020 project, aims to develop a technology ecosystem to support integrated care for older persons with multimorbidity (PwMs). The ecosystem will connect four key models of care and support - 1) homecare (including informal care), 2) hospital care, 3) community and social care 4) social support networks – and will be centred on the person at home self-managing their conditions with support from their care network.

Győrffy, Z (2020) Digitally engaged physicians about the digital health transition PLoS ONE 15(9): e0238658
This paper explores the digitally engaged physician's knowledge and attitudes towards digital health technologies and the transformation of the doctor-patient relationship.

IPC (2020) Digital innovation in adult social care: how we've been supporting communities during COVID-19
This report is intended to share learning and offer practical considerations for councils, their partners and national bodies on how best to support greater digital innovation and adoption across the adult social care sector.

The King's Fund (2020) The digital revolution: eight technologies that will change health and care
The paper looks at the possible impact eight technologies if implemented in health and care: smartphones and wearables; at-home or portable diagnostics; smart or implantable drug delivery mechanisms; digital therapeutics and immersive technologies; genome sequencing; artificial intelligence; robotics and automation; and the connected community.

Leonardsen, AC et al (2020) Patient experiences with technology enabled care across healthcare settings- a systematic review BMC Health Serv Res 20, 779
This review deepens the understanding of patients' experiences with technology enabled care solutions. Patients' experiences not only relate to the practical/technical element of the device or solution, but to how this impact on their everyday life. Patient participation in development and planned use of such solutions should be considered an integral part in healthcare quality initiatives.

Lupton, D (2013) The Digitally Engaged Patient: Self-Monitoring and Self-Care in the Digital Health Era Social Theory & Health. online first. 10.1057/sth.2013.10
This review article focuses on one aspect of digital health discourses: the concept of patient engagement that encourages patients to take up the new digital media technologies to engage in self-monitoring and self-care.

Medly
Medly encourages you to take control of your heart health by providing self-care guidance and access to your care team right from home. Monitor your conditions, receive personalized support, and be in direct contact with your care team when you need it the most.

MedTech Europe (2022) Remote Patient Monitoring - now or never
The focus of this paper is the digital technologies and services that enable remote care, including remote patient monitoring solutions, which we refer to here as Remote Patient Monitoring (RPM). RPM solutions allow health providers to monitor the onset of disease and symptom progression remotely, engage with patients virtually to modify care plans and provide education on self-care based on changes in the patient's condition.

Morton, K et al (2017) Using digital interventions for self-management of chronic physical health conditions: A meta-ethnography review of published studies Patient Education and Counseling Volume 100, Issue 4, April 2017, Pages 616-635
The review found that patients monitoring their health felt reassured by the insight this provided, and perceived they had more meaningful consultations with the HCP. These benefits were elicited by simple tele-monitoring systems as well as multifaceted DIs. Patients appeared to feel more reliant on HCPs if they received regular feedback from the HCP. HCPs focused mainly on their improved clinical control, and some also appreciated patients' increased understanding of their condition.

NHS Education for Scotland (2017) Supporting Scotland's Workforce - Technology Enabled Care Research Report
This report has brought together wider workforce views, experiences and learning needs around using technology in health, housing, care and support services in Scotland.

NHS England (2019) Digital applications for self-management at Audley Health Centre
Case study looking at the implementation of digital applications to support patients to self-manage their long-term conditions. This new approach has improved patient outcomes by improving compliance with symptom monitoring, improving patient and staff experience as well as use of resources locally.

NHS England (2021) Supporting care with remote monitoring
Overview of regional projects scaling technology enabled remote monitoring.

Partners 4 Change The Three Conversations
The Three Conversations is the key to the door of a new way of working in social and health care organisations. It's about having open and interested conversations with people and families who need support. It's also about the conversations that people working in the sector have with colleagues and partners – working out how to collaborate to make things happen so that they can be useful for people and help them get on better with their lives.

Pejovic, V et al (2017) Anticipatory Mobile Digital Health: Towards Personalized Proactive Therapies and Prevention Strategies In: Nadin, M. (eds) Anticipation and Medicine. Springer, Cham
Recent advances in healthcare illuminated the role that individual traits and behaviors play in a person's health. Consequently, a need has arisen for, currently expensive and non-scalable, continuous long-term patient monitoring and individually tailored therapies. Equipped with an array of sensors, high-performance computing power, and carried by their owners at all times, mobile computing devices promise to enable continuous patient monitoring, and, with the help of machine learning, build predictive models of patient's health and behavior.

Policy Exchange (2022) At your service: a proposal to reform general practice and enable digital healthcare at scale
The paper argues that general practice should become the foundational layer upon which digital services are built and scaled across the NHS, further justifying the need for primary care services to be coordinated at ICS level as part of a wider digital ecosystem.

Public Policy Projects (2020) Connecting services, transforming lives: the benefits of technology-enabled care services
This report explores how technology-enabled care services can be used for the benefit of patients, carers and the health and care sector, and makes recommendations about how the UK can be at the forefront of use of TECS, particularly in an era of Covid-19.

Rethink Partners (2021) Digital care technology: care technology outcomes framework
The framework is intended to act as a starting point for councils who want to capture benefits arising from care technology services Each section focuses on capturing benefits relating to a key stakeholder group. Whilst a number of the benefits may arise from both analogue and digital care technology, there may be greater benefits from truly digital solutions (interoperable, collecting / analysing data, promoting self-management); and there are some benefits which are arguably unique to digital care technology solutions.

Rodrigues, JJPC et al (2018) Enabling Technologies for the Internet of Health Things IEEE Access, vol. 6, pp. 13129-13141, 2018
This paper presents a review of techniques based on IoT for healthcare and ambient-assisted living, defined as the Internet of Health Things. It identifies the technological advances made so far, analyzing the challenges to be overcome and provides an approach of future trends.

Schütz, N et al. (2020) A systems approach towards remote health-monitoring in older adults: Introducing a zero-interaction digital exhaust npj Digit. Med. 5, 116
ThIS study evaluated the idea of a comprehensive digital exhaust for long-term remote monitoring in older adults.

Scottish Government (2018) Scotland's digital health and care strategy: enabling, connecting and empowering
The strategy focuses on how care for people can be enhanced and transformed through the use of digital technology. It covers the whole range of health, social care and wellbeing services. It also extends to informal care, self-care, prevention and public health. The focus of this strategy is two-fold: to empower citizens to better manage their health and wellbeing, support independent living and gain access to services through digital means; and also to put in place the underpinning architectural and information governance building blocks for the effective flow of information across the whole care system that will enable the transformational ambitions of the Health and Social Care Delivery Plan.

Scottish Government (2018) TEC programme data review and evaluation: options study
This report provides a synthesis and review of existing evaluation evidence from the Scottish Government-funded Technology Enabled Care (TEC) programme in order to identify gaps in evidence and inform the priorities for future evaluations. The Programme included Home and Mobile Health Monitoring (HMHM); Video Conferencing; Digital platforms; and Telecare.

Scottish Government (2021) Enabling, connecting and empowering: care in the digital age
The strategy aims to ensure: citizens have access to, and greater control over, their own health and care data - as well as access to the digital information, tools and services they need to help maintain and improve their health and wellbeing; health and care services are built on people-centred, safe, secure and ethical digital foundations which allow staff to record, access and share relevant information across the health and care system, and feel confident in their use of digital technology, in order to improve the delivery of care; health and care planners, researchers and innovators have secure access to the data they need in order to increase the efficiency of our health and care systems, and develop new and improved ways of working.

Spargo, M (2021) Shaping the Future of Digitally Enabled Health and Care Pharmacy 2021, 9, 17
Medicines control and optimisation' is one of seven themes being explored in the campaign and will investigate the impact of digital solutions that aim to optimise medicines use by way of fostering effective self-management, while facilitating timely intervention by clinicians based on remote monitoring and individualised risk assessments powered by artificial intelligence.

Taiwo, O & Ezugwu, AE (2020) Smart healthcare support for remote patient monitoring during covid-19 quarantine Inform Med Unlocked. 2020;20:100428
This work proposes a smart home health care system for the sick, elderly and handicapped, focused mainly on making life more convenient for those with health challenges who need to visit the hospital regularly. The new system has been developed in order to reduce the number of hospital visits, queues in the hospital and reduction in the cost of taking care of the sick. The system performs a dual role of both health monitoring and control of essential home appliances.

Tunstall (2020) The transformational potential of telecare
This research considers the benefits of proactive, reactive and personalised use of technology to support older people in their own homes. The findings demonstrate and quantify the ability of telecare to contribute to the aim of: better health and care outcomes, improved cost efficiencies, user and carer experience, and improved staff experience. They also show the benefits of telecare at different levels from reactive, through proactive to personalised levels.

WHO (2022) Global report on assistive technology
This report presents a comprehensive dataset and analysis of the access to assistive technology, drawing the attention of governments and civil society to the need for, and benefit of, assistive technology, including its return on investment.