



# Empowering Nurses and Midwives in the Digital Age

Anne Jesudason & ONMSD Digital Health NMPDU officers in collaboration with Loretto Grogan [National CNMIO, HSE]

## Background

Ireland is rapidly embracing digital health services to enhance the safe and efficient delivery of care (ONMSD, 2019). The development of nursing and midwifery digital health capabilities is a key enabling factor towards building a digital workforce (ONMSD, 2021). The digital skills programme was developed in collaboration between the Health Service Executive (HSE) and the Department of Communications, Climate Action and Environment.

## Aims

To provide nurses and midwives with the necessary digital literacy skills to engage and feel confident in using the digital tools available.

## Objectives

- Develop and deliver a digital literacy programme that meets the needs of the nursing and midwifery services.
- Provide online webinars to build digital literacy skills in accessing and using digital platforms.
- Deliver a programme of modules that will allow incremental growth in digital knowledge and skills.
- Evaluate the programme content and user experience.

## Methodology

The digital literacy programme was delivered virtually using **Microsoft Teams & Webex Platforms**.

A tutor supported each programme and provided an avenue for participants to ask questions and seek clarifications.



**Workbooks** were emailed to participants ahead of the scheduled webinar which allowed participants to prepare and engage more effectively during the sessions.

The programmes were offered from **March to April 2022, September to December 2022 and May to June 2023**.

Participants could choose one or more modules in the programme. This facilitated **personalised learning and flexibility**.

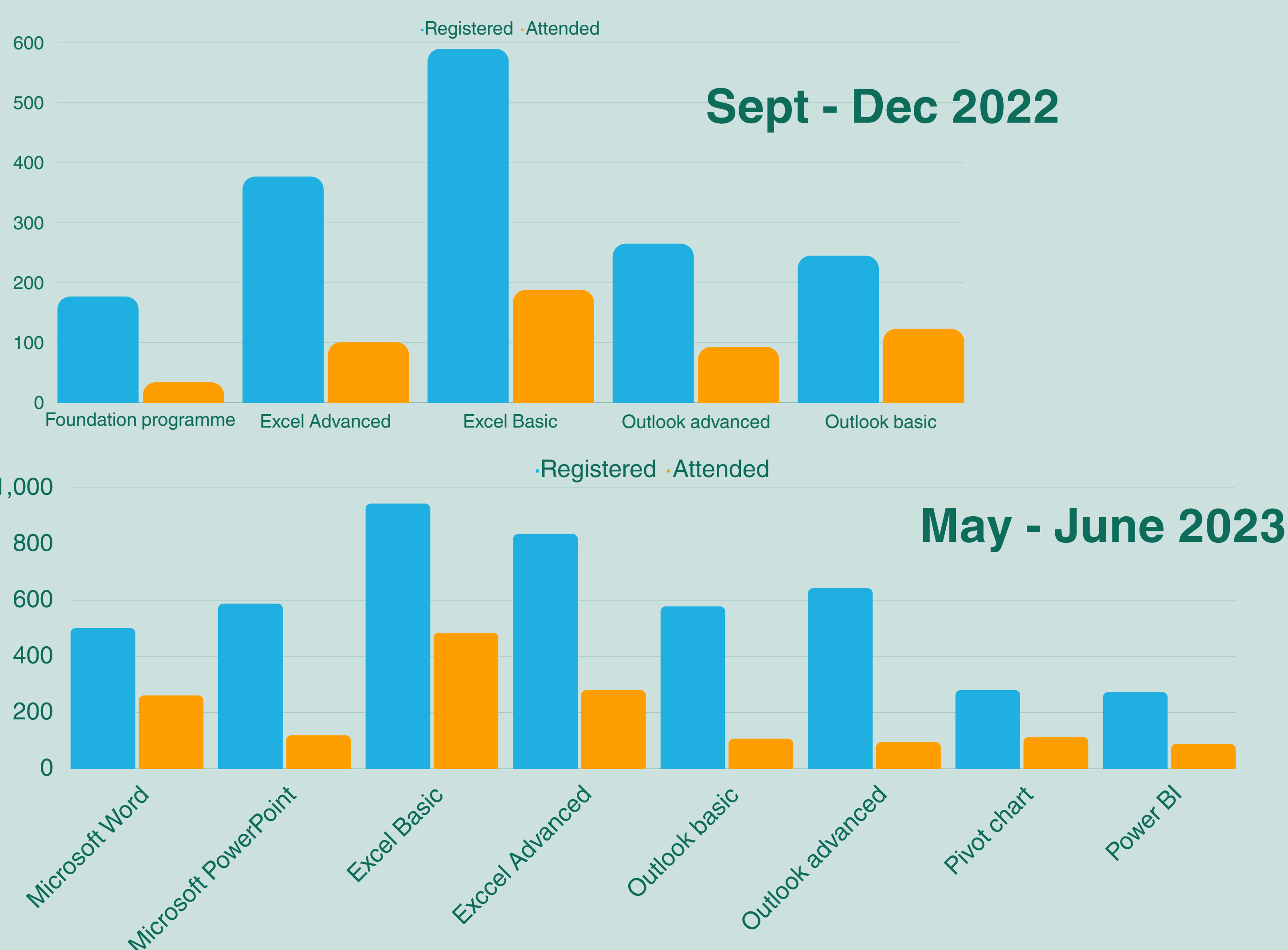
Programme evaluations informed the content and the development of subsequent programs.



## Results

A total of **2,334** participants actively engaged in the virtual program. **4,643** registered to the online recordings of the programme.

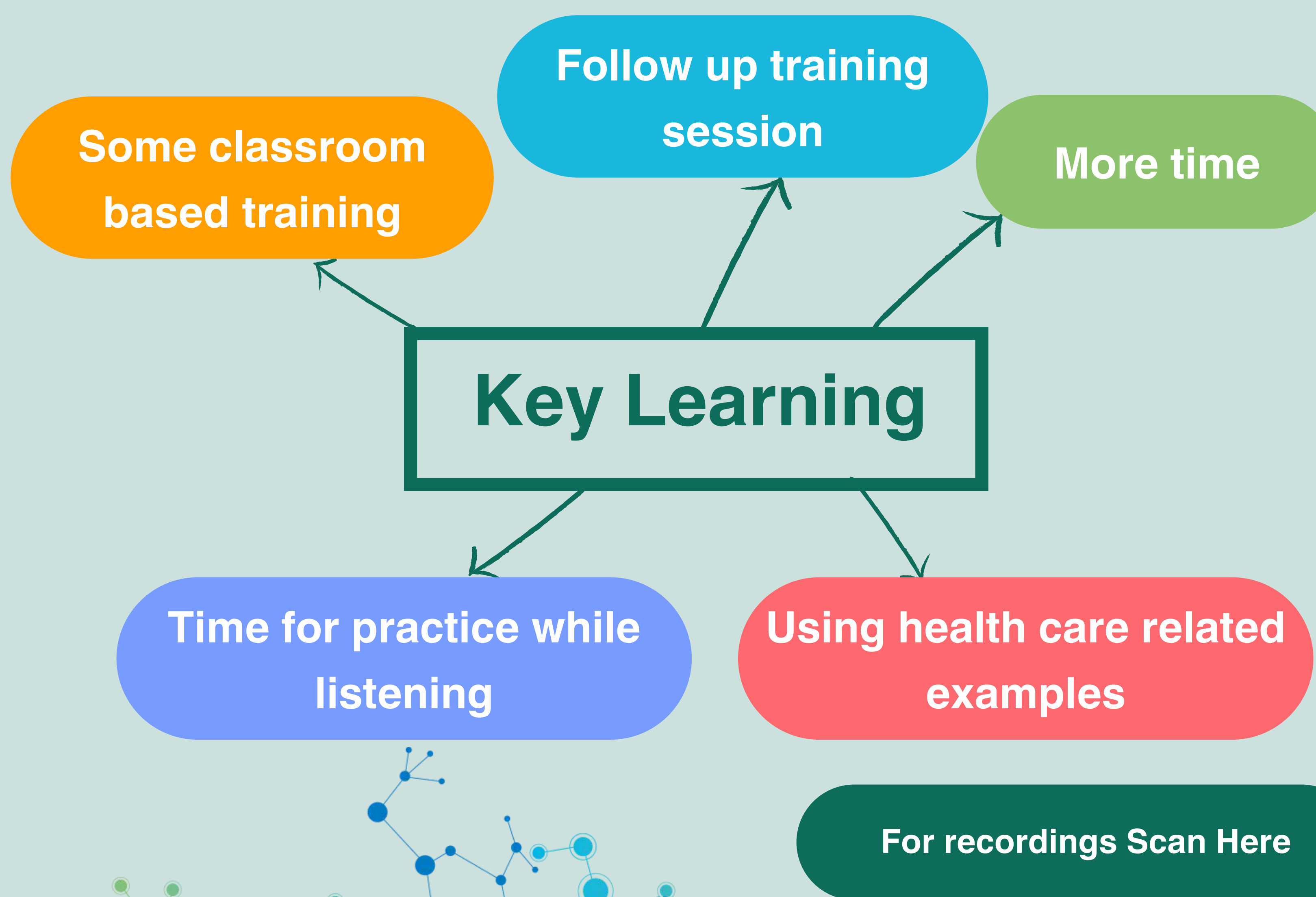
**81%** of participants reported an increase in their confidence in digital skills. **91%** expressed confidence in their ability to apply these skills effectively in their professional work.



## Discussion

The evaluations from the programme highlighted the positive outcomes and impact of the virtual digital skills programme.

Recordings allowed for an **accessible, sustainable and user-friendly** model of building digital literacy skills in nursing and midwifery.



For recordings Scan Here



## References

ONMSD, 2019, Digital Roadmap for Nursing & Midwifery 2019- 2024 available at <https://healthservice.hse.ie/filelibrary/onmsd/digital-roadmap-for-nursing-midwifery-2019-2024.pdf>

ONMSD, 2021, All Ireland Nursing and Midwifery Digital Capability Framework available at <https://healthservice.hse.ie/filelibrary/onmsd/all-ireland-nursing-midwifery-digital-health-capability-framework.pdf>

Further information:

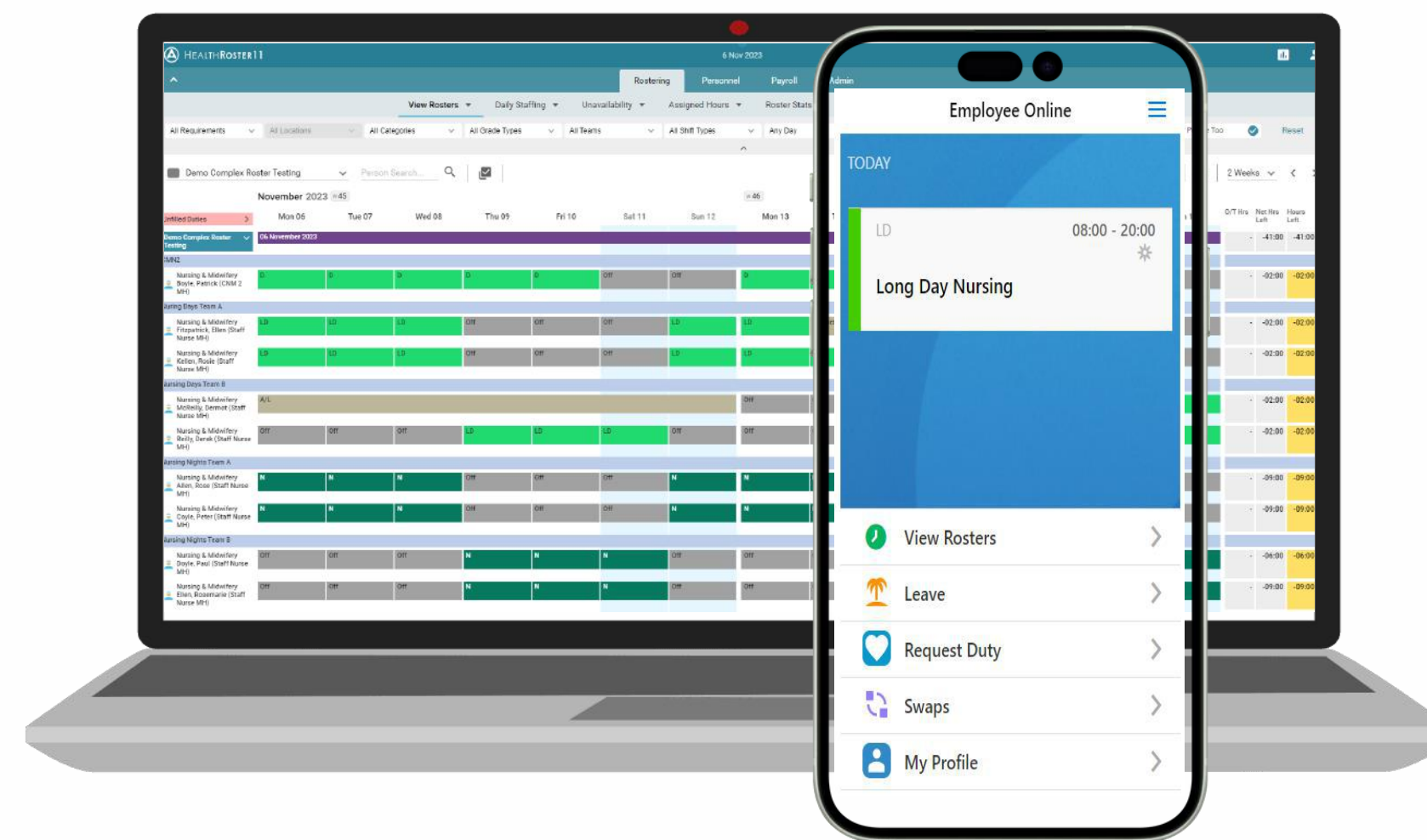
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# E-Rostering Technology

## 'A Game Changer' for Nursing and Midwifery In Cork University Maternity Hospital (CUMH)

Andy Small, National eRostering Lead; Ann Kelleher, Nurse Practice Development Coordinator, SSWHG; Claire O'Halloran, ADOM, CUMH; Katie Bourke, DOM, CUMH; Martina O'Connell, National eRostering Lead; Siobhan O'Sullivan, Staff Officer, Implementation Lead, SSWHG

### eRoster Implementation Team



**700 (100%)**  
Nurses/Midwives  
Digital Access to  
Live Roster Data

**214** Hours p/w  
managers time saved

### Introduction

Rostering and workforce management consumes a significant amount of time for Nurse and Midwife Managers on a weekly bases. From January to November 2023, a collaborative approach was used to implement the RLDatix [Allocate] eRostering system across all nursing and midwifery staff. Implementation has been completed - a total of 700 (100%) nurses and midwives (incl. 120 midwifery students), Health Care Assistants and Nursery Nurses have access to this e-Rostering cloud hosted system. Evaluation of time saving was required to determine early onset e-Rostering efficiencies.

### Aims

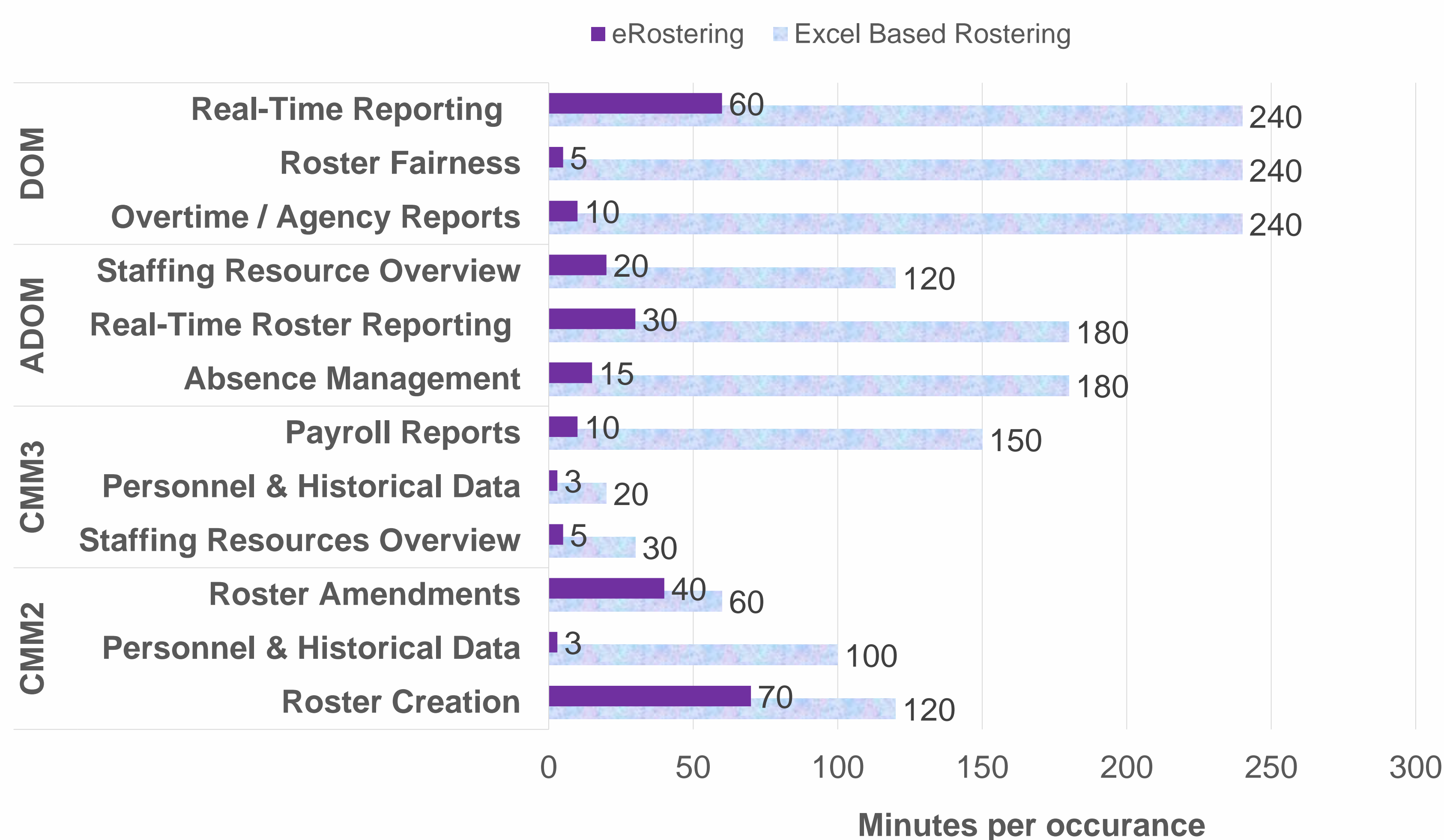
1. Identify time variances and efficiencies between Electronic and Microsoft Excel based roster across Clinical Nurse/Midwifery Managers
2. Identify areas of greatest impact following eRoster implementation.

### Design/Method

A case study approach was adopted to identify time variances between electronic and excel based rostering. In October 2023, face-to-face interviews took place with six (n=28) Nurse/Midwifery managers involved in eRostering (CNM/CMM 2,3, Assistant Directors of Nursing/Midwifery and the Director of Midwifery). Interviews were guided by a 12 item pre-set questionnaire (incl. roster creation, staff overview, payroll returns and reports). Data was analysed using excel and the top three efficiencies per Nursing/Midwifery grade highlighted.

### RESULTS

#### Comparative Times Electronic v Excel Based Rostering



#### Time Saving per Grade

Nurse/Midwife Grades	Hours Per Week (P/W) Saved per Grade	Total Hours P/W Saved (round to whole number)
DOM (X1)	8	8
ADOM (X5)	6	32
CMM3 (X7)	9	64
CNM2/CMM2 (X15)	7	110
<b>Total</b>		<b>214</b>

#### Time Savings Reported

- Weekly Payroll Return (CNM3, 93 Staff)  
**150 v 10 minutes**
- Roster Creation (CNM2, 68 Staff)  
**300 v 150 minutes**

### Organisational Impact

- Time efficiencies have resulted in additional clinical time to care for women and babies
- Early data shows an increase in time available for service delivery and resource planning
- Enhanced workforce overview due to real time reporting

### Next Steps

- Collaborative studies on the impact of eRostering on staff satisfaction, quality improvement and cost savings.
- Prioritise e-Rostering systems across acute and community settings (<12% of N/M currently have eRostering systems).
- Develop e-Rostering Standards, Policy and Quality Care Metrics

### Bibliography

Slaintecare Action Plan (DoH 2023); All Ireland Nursing & Midwifery Digital Health Capability Framework (ONMSD 2020); UK: Allocate Software Systems. E-rostering the clinical workforce: levels of attainment and meaningful use standards (2019); Evaluation of the Implementation Process of e-rostering system in Letterkenny University Hospital (ONMSD 2018); Framework for Safe Nurse Staffing and Skill Mix (DoH 2018); Soomro et al (2018). Critical Success factors in implementing an E-Rostering in a Healthcare organisation. *Health Service Management Research*. 2018 Aug;31(3):130-137. Realising the paperless revolution: How rostering in the NHS went digital (2018). NHS Improvement; e-Health Strategy for Ireland (DoH 2013).

### Acknowledgements



The National eRostering Team, CUMH Nursing and Midwifery Staff and Management, SSWHG Nursing & Midwifery Department, Cork University Hospital (CUH) IT Department, e-Health SSWHG, CUH Payroll Department, NISRP Management, Human Resources.

# Bridging the Generations And supporting Practice (GAPP) Video-enhanced Orientation.



Presenters: Ruth McGirr CMM2, Adrienne Brady CMM3, Michelle Scanlon CMM3, Christine McGeough ADOM.

## Aim.

To ensure that 100% midwives on rotation have access to a QR code containing a suite of videos on non-clinical orientation information

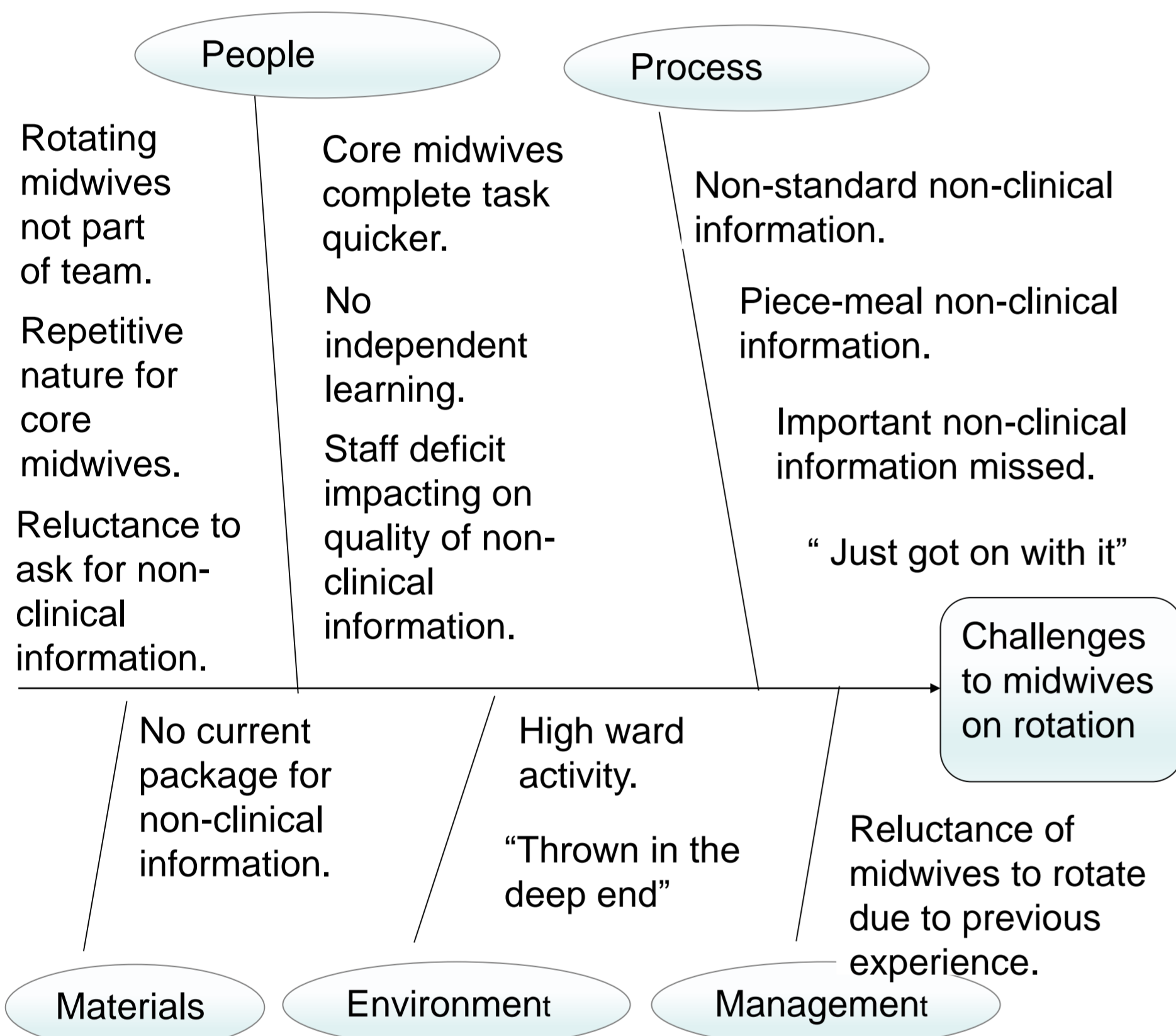
## Background.

All new graduates & newly appointed midwives in Our Lady of Lourdes Maternity Unit rotate throughout the Unit. In addition, core midwives also rotate to ensure they are supported in maintaining their birth skills and knowledge.

Rotation has been identified as having a positive effect on the reduction of burnout in midwives. (Doherty, J O'Brien, D 2022 )

However, following a survey within the Maternity Unit 100% midwives on rotation and 60% core midwives identified rotation as a source of stress.

Ishikawa Diagram was used to illustrate challenges while on rotation.



## What are we trying to accomplish?



- 100% non-clinical orientation information on QR code will be standardised for a clear understanding of expectations.
- 100% non-clinical orientation information on QR code will be relevant, current and up-to-date.
- 100% midwives on rotation feel supported and valued.

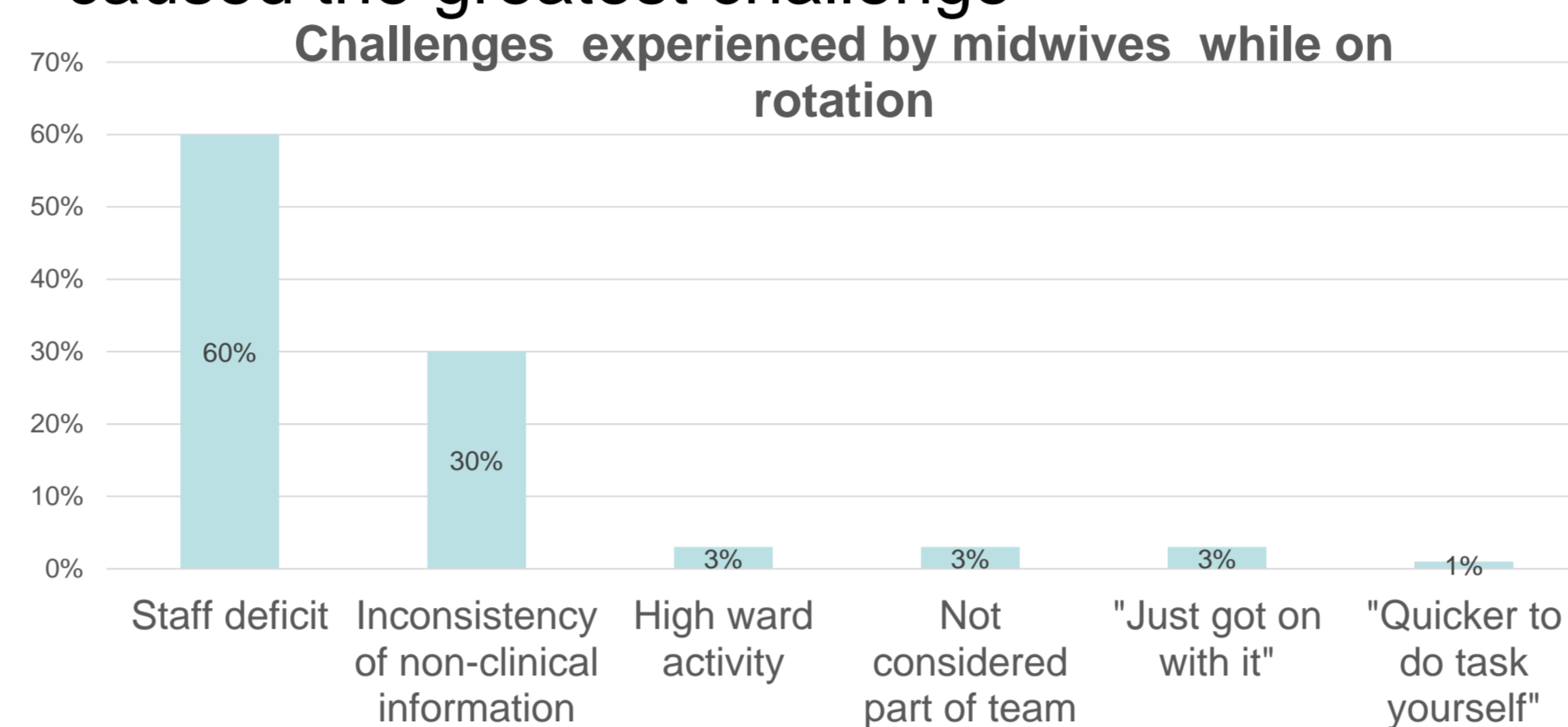
## How will we know that the change is an improvement ?

By collecting data through a satisfaction survey

- Did all midwives on rotation receive a QR code?
- Did the midwife scan the QR code?
- Is the information video within the QR code relevant to their rotation?
- Did the information within the QR code improve your rotation experience?
- Would you recommend using this QR code for orientation video information?

## Process Design.

**Current Process:** Midwives were surveyed to indicate what was the most prevalent challenge experienced while on rotation. This was plotted using Pareto analysis to determine which issues caused the greatest challenge



## Comment from Survey.

"Staff shortages mean it's just sometimes too busy to orient new staff to the ward environment... I know a colleague of mine who started... She'd never worked there as an intern and didn't know where anything was, not even where sanitary pads and incos were kept. She literally hit the ground running and just had to figure it out"-Midwife on rotation

	SMART GOALS
<b>Specific</b>	To create a suite of videos to standardise and communicate relevant, clear non-clinical information and upload onto a QR code. QR code is available to all midwives on rotation.
<b>Measurable</b>	Did all midwives on rotation receive a QR code? Did the midwife scan the QR code? Is the information video within the QR code relevant to their orientation? Would you recommend using this QR code for orientation video information?
<b>Achievable</b>	Create videos via a smart phone and upload to YouTube video channel. You tube video channel is unlisted so link is not available for public viewing. QR code is developed in adherence to local Development & Governance of QR code Standard Operating Procedure & GDPR policy. Each midwife has a smart phone to scan QR code. The QR code is also displayed at ward level.
<b>Relevant</b>	To address challenges in relation to non-clinical information areas identified by midwives by providing access to "Just in Time" clear, relevant information using a QR code
<b>Time</b>	Quarter 2 2023

1<sup>st</sup> PDCA Plan: To create a pilot video.

Do: A pilot video containing information was made on a smartphone and uploaded to an unlisted link on YouTube, following consent from the participants. All midwives on rotation were given this QR code via "Whats-app" QR code was also displayed at ward level.

2<sup>nd</sup> PDCA Plan: Midwives were asked to identify specific gaps in non-clinical orientation information to be included in the videos.

Do: Using video, CMMs and midwives "tell the story" of the area to orientate all new staff, walking through the activities pertaining to that area's routine

## References.

Reducing midwife burnout at organisational level - Midwives need time, space and a positive work-place culture- Doherty, J O'Brien, D 2022

## Measuring Improvement.

### SATISFACTION SURVEY ON USE OF QR CODE FOR NON-CLINICAL INFORMATION ON ROTATION

DID THE QR CODE IMPROVE YOUR EXPERIENCE ON ROTATION?	50.00%
WAS THE INFORMATION ON QR CODE CLEAR AND RELEVANT?	60.00%
WOULD YOU RECOMMEND THIS QR CODE?	90.00%
DID YOU SCAN QR CODE?	95.00%
DID YOU RECEIVE A QR CODE WHILE ON ROTATION?	100.00%

## Comments from Survey.

"I think this would be extremely useful and would calm the nerves of new grads/staff entering new areas as they can have some knowledge of the routine of the area before they go there"

"That's a great idea"

"Coming from another hospital..I needed help with syringe driver/pumps"

Qualified 8 years and still unsure of some aspects like how to report broken equipment"

"Could be used by midwives returning from maternity leave as a refresher"

"The staff were very supportive and I had done my internship on that ward"

"Would benefit from information on HR/payroll on orientation..Also on how to get barcodes for badge and Lab logins"

"I am not tech savey and wouldn't know how to use a QR code"

"I worked as an intern here so familiar with wards"

## Sustainability and Spread.

- Continuing collaboration with midwives to add to and ensure relevant information on QR code, building-on improving midwives experience on rotation.
- Offer access to QR codes to midwives returning from leave.
- To expand stakeholder group to include undergraduate midwives to explore their needs.
- Professional videography to allow access to video platform on HSE YouTube channel.

## Acknowledgements.

A special thank you to Ruth McGirr CMM for piloting this initiative.

To all the midwives within the maternity unit for giving such honest feedback to help build this initiative.

# Exploring the use of telehealth in adults with advanced cancer; determining barriers and facilitators for use. A systematic review.

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Mater Misericordiae University Hospital<sup>1</sup> Department of Economics<sup>2</sup> & Business Information Systems<sup>3</sup> Cork University Business School, Marymount University Hospital and Hospice<sup>4</sup> & Breakthrough Cancer Research<sup>5</sup>

## INTRODUCTION

**AIM:** To examine advanced cancer patients' experiences of telehealth in palliative care since March 2021.

**BACKGROUND:** recommendations on the delivery of telehealth services for advanced cancer care patients in palliative care. Utilisation of telehealth is being advocated for in the management of advanced disease, including cancer. Telehealth may provide useful and cost-effective supplementary care within traditional healthcare models to address the health and information needs of patients and their families. However, the barriers and facilitators influencing the experience of advanced cancer patients using Telehealth in a palliative care context remains unclear. Results will guide policy

### METHODS:

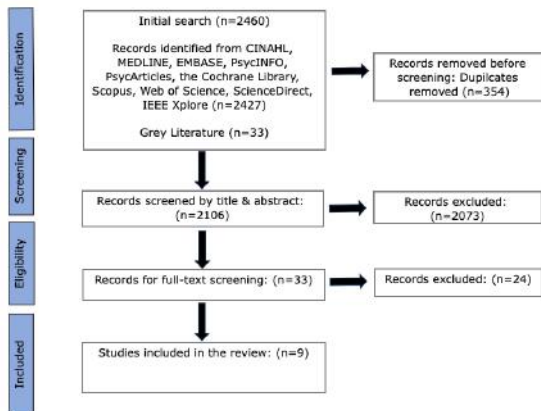
- Systematic Literature Search
- Database: CINAHL, MEDLINE, EMBASE, PsycINFO, PsycArticles, the Cochrane Library, Scopus, Web of Science, ScienceDirect, IEEE Xplore and Grey literature.
- Date Search Conducted: March - August 2023
- Reviewed using JBI Quality Check List

**Table 1: PICO Framework**

<b>Population</b>	Adult population (>18 years old). Patients with advanced cancer (any type), defined as metastatic disease at diagnosis, and/or with local or metastatic spread following treatment, and/or where prognosis is estimated as less than a year.
<b>Intervention</b>	Post Covid-19 Pandemic March 2021-March 2023 Consultations with a healthcare professional through utilising telecommunications technology including, telephone consultations, video enabled care and remote patient monitoring.
<b>Comparison</b>	Standard face to face care delivery.
<b>Outcomes</b>	Experience/perceptions/attitudes of patients receiving care. Barriers and facilitators of telehealth use in palliative care.

## RESULTS

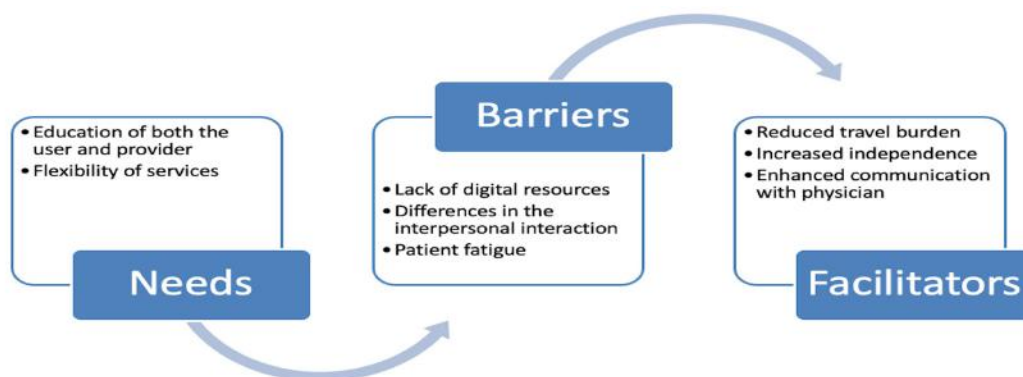
**Figure 1: Flow Diagram**



**Table 2: Study Characteristics**

<b>Perspective</b>	Adult patients with advanced cancer
<b>Type of Analysis</b>	Quantitative (3), Qualitative (2), Mixed Methods (4)
<b>Setting</b>	Community and outpatient department
<b>Countries</b>	America (4), India (1), Italy (1), UK (1), Canada (1), Finland (1)
<b>Method of Telehealth</b>	Video Enabled Care (5), Telephone Consultation (3) Remote Patient Monitoring (3)

**Figure 2: Initial Insights**



## CONCLUSION

- Risk of digital exclusion
  - Socioeconomic inequities
  - Age related bias
- Perception of communication inconsistent between studies
  - Patient-clinician rapport
  - Non-verbal communication
- Technology related anxiety less evident compared to previous systematic reviews
- Strong indications that patients wish to continue using telehealth in some iteration
  - Emphasis on autonomy and flexibility

## REFERENCES

- Murphy, A., Kirby, A., Lawlor, A., Drummond, F.J. and Heavin, C., 2022. Mitigating the impact of the COVID-19 pandemic on adult cancer patients through telehealth adoption: a systematic review. *Sensors*, 22(9), p.3598
- Castro, M.J.A., Zaig, S., Nissim, R., O'Connor, B., Lau, J., Mak, E., Zimmermann, C. and Hannon, B., 2023. Telehealth outpatient palliative care in the COVID-19 pandemic: patient experience qualitative study. *BMJ Supportive & Palliative Care*.
- Frydman, Julia L., Asem Berkalieva, Bian Liu, Bethann M. Scarborough, Madhu Mazumdar, and Cardinal B. Smith. "Telemedicine utilization in the ambulatory palliative care setting: are there disparities?" *Journal of Pain and Symptom Management* 63, no. 3 (2022): 423-429.



# Investigating the adoption of telehealth by health care professionals in specialist palliative care.

Dr Ciara McGrath<sup>1</sup> Dr Ann Kirby<sup>2</sup>, Mr. Donal Griffin<sup>2</sup>, Prof. Ciara Heavin<sup>3</sup>, Dr Fiona Kiely<sup>4</sup>, Dr Frances J Drummond<sup>5</sup>  
 Mater Misericordiae University Hospital<sup>1</sup> Department of Economics<sup>2</sup> & Business Information Systems<sup>3</sup> Cork University Business School, Marymount University Hospital and Hospice<sup>4</sup> & Breakthrough Cancer Research<sup>5</sup>

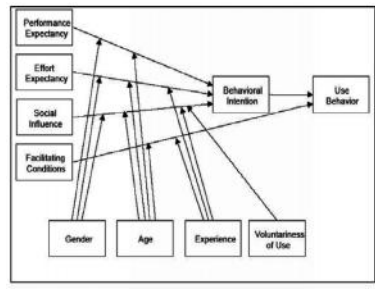
## INTRODUCTION

**AIM:** Explore the current patterns of telehealth use in SPC. Explore the factors that affect the adoption of telehealth by HCPs.

**BACKGROUND:** Telehealth emerged as one solution to provide effective care to patients with advanced cancer during the COVID-19 pandemic. In the post-pandemic phase motivation for telehealth adoption is waning and the factors influencing adoption among healthcare professionals (HCPs) remain unclear.

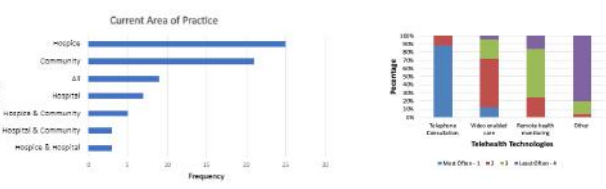
**METHODS:** Online survey leveraging the Unified Theory of Acceptance and Use of Technology (UTAUT) model. 5-point Likert-style questions were developed to determine the behavioural factors that affect the adoption of telehealth.

Figure 1: UTAUT Model

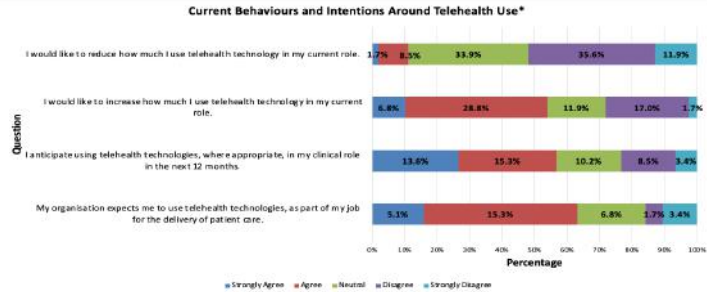


## RESULTS

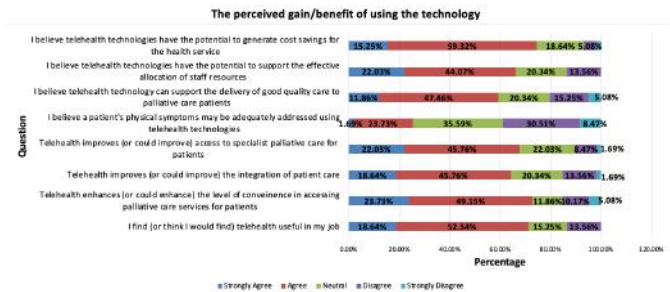
### Respondents' characteristics



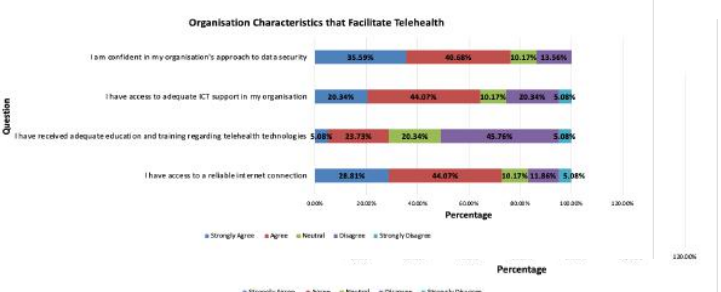
### Behavioural Intention



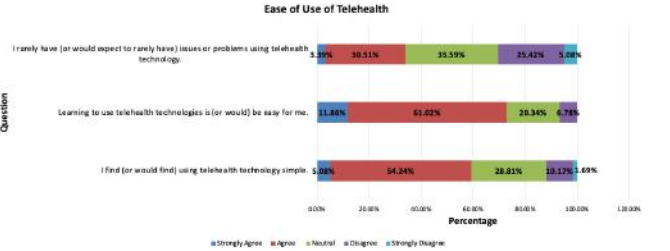
### Performance Expectancy



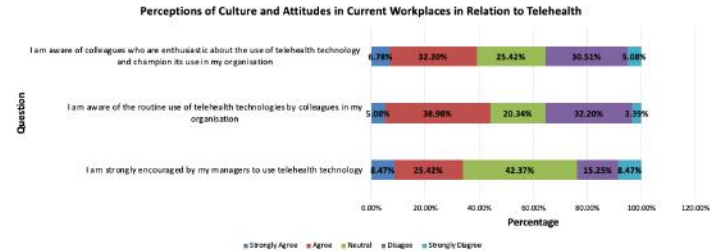
### Facilitating conditions



### Effort Expectancy



### Social Influence



## CONCLUSION

Healthcare professionals in specialist palliative care see a role for the ongoing use of telehealth in their practice. Many feel they have not received adequate education and support.

## REFERENCES

VENKATESH V., DAVIS F.D. (2000) 'A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies'. *Management Science* 46(2)186–204. DOI: 10.1287/mnsc.46.2.186.11926.





# Towards Ensuring Digitally Inclusive HSE Telehealth Services

## “Leave No One Behind”

Julie Bellew, Conor Kennedy, Emer Sheridan, Elaine Aughey, Tracey McCluskey, Ciara Clarke

eHealth Telehealth Programme Team 2023

### Background

**Digital inclusion** is defined as “equitable, meaningful, and safe access to use, lead, and design of digital technologies, services, and associated opportunities for everyone, everywhere”(UN). **Digital for Good: Ireland’s Digital Inclusion Roadmap** (2023) notes the goal of making Ireland one of the most digitally inclusive States in the EU, committing to making digital inclusion a core part of designing and delivering quality digital public services including Health, and adopting the UN principle of “Leave No One Behind”. A guiding principle in the new **HSE Telehealth Roadmap 2024-2027** is “**Digital Inclusion**”: Ensuring digital access is inclusive and equitable for all”.

Digital inclusion encompasses two dimensions:

1. Addressing the **barriers and inequalities** that can create a ‘digital divide’ preventing disadvantaged groups from accessing digital services.
2. Leveraging opportunities presented by digital health to **reach and support** currently underserved or hard-to-reach populations (Mental Health Reform, 2023).

### Barriers to Digital Inclusion



### Digital Exclusion in Ireland

- 1 in 4 do not have home broadband (Comreg 2022).
- **+65s are slightly less likely to own a phone.**
- **Half of those without a phone have never owned a mobile phone.**
- **27% of those who do not own a phone noted cost as the reason.**
- **45%** of respondents reported some disadvantage when using a virtual platform. (First National Evaluation of VEC in Ireland 2021).

I N C L U S I O N

### Most Impacted by Digital Exclusion



Marginalised groups	People with language difficulties
Older Adults	Minority ethnic populations
Low - income families	Rural and remote communities
People with chronic diseases	

### Aims & Objectives :

“ The HSE Telehealth Team aimed to address digital exclusion by ensuring access to hardware and internet connectivity was not a barrier for those seeking to access digital health services.

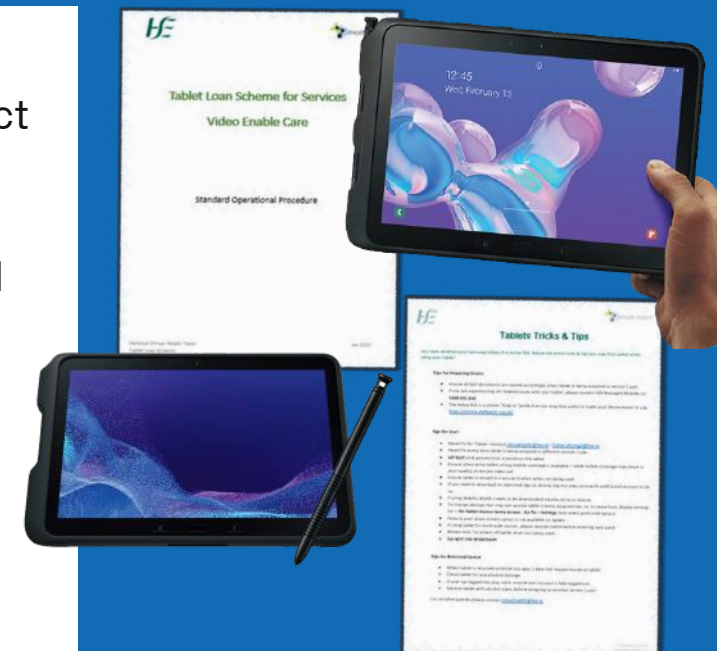
To achieve this, a Tablet Loan Scheme was established in 2021.

### Methodology - What we did:

- **Researched** other Tablet Loan Schemes both in Ireland and UK:
  - mPower Scottish Outer Hebrides ‘Try before you Buy’ Tablet Loan Scheme,
  - Northern Ireland Southern Health & Social Care Trust ‘Care Home Tablet Scheme’,
  - Ireland HSE EVE Programme ‘Tablet Loan Scheme’.
- **Developed a process** to establish a formal pathway to acquire a Tablet on a loan basis.
- **Procured** a quantity of prepaid SIM-enabled Samsung Galaxy Tab Active Pro tablets.
- Decision taken to make available to Health Care Providers and Service Users/Patients
- **Supported** access to Telehealth tools to facilitate video-enabled healthcare consultations.
- **Established a process** to support Digital Health Leads/Acute Telehealth Leads nationally to receive tablets on a loan basis – working with local teams to establish digital equity needs.

### Loan Options:

- Lend to a Service for direct use:
  - i.e. Virtual Ward Rounds/Unscheduled Care
- Lend to a Service User:
  - i.e. To participate in online therapies - Mental Health or Living well sessions



### Results:

Forty-four (44) tablets were distributed to 20 services/digital teams over a 20 month period, all funded through eHealth.

Useful information such as a Tablet Loan Scheme SOP and usage ‘Tips & Tricks’ were created.

This scheme facilitated access to service for populations including:

- Migrant Populations
- People with Long Term Conditions
- Older People
- Marginalised Groups
- People living in rural communities

### Use Case Examples:

**Chronic Disease Management (DNCC):** Utilized for patient use at home to participate in virtual clinics.

**CNM2 Clinical Informatics, Waterford:** Lactation CNS uses a tablet on wards to show breastfeeding videos to new mothers.

**Community HR Galway:** Used for completing mandatory training by staff without device access.

**Dementia Project Sligo:** Used to promote technology use with individuals having cognitive impairments, exploring various apps like gardening, sports, shopping, and library resources.

**Disability Services Galway:** Used to enhance collaboration among colleagues.

**Memory Technology Resource Room Sligo:** Used to introduce clients to the benefits of tablet technology.

**Migrant Health Teams DNCC:** Used for delivering online GP services to patients in 57 congregated settings to reduce wait times and hospital presentations.

**Occupational Therapy Sligo:** Used for Sensory Processing Toolbox Online Training.

**Older People Services CNU Galway:** Used to facilitate communication between residents and families.

**Physiotherapy Services DNCC:** Used for home visits, group clinics, and video-enabled care calls in transit. Also used for patient use at home to join virtual pulmonary rehabilitation sessions

### Discussion:

Initial feedback from services who accessed the Tablet Loan Scheme have been positive, particularly in areas where digital inclusion is a known barrier to accessing online services such as mental health and migrant health.

The **Telehealth Implementation Toolkit** highlights the need for digital inclusion considerations during the design phase with emphasis on co-design.

The development of a Digital Equity Assessment tool is under consideration to support services with a defined process to consider digital equity when proposing digital pathways.

### Sample of User Feedback:

- “No initial financial outlay for devices and connection”
- “Facilitated choice & flexible service delivery for HCP & Service User”
- “Enabled new and re-designed care pathways to support hospital avoidance”
- “Offers reassurance that video is better than phone”
- “Facilitated participation for service users from home”
- “Embraced by service users, feel their voices are heard”

For references and information on the HSE eHealth Telehealth Tablet Loan Scheme contact [virtualhealth@hse.ie](mailto:virtualhealth@hse.ie)



# Attitudes of the Public and Professionals to Digital Health and Social Care

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\*Health Information and Quality Authority (HIQA)

## Background

- The **EU** has set targets where the public will have electronic access to their medical records by 2030.<sup>1</sup>
- The **European Health Data Space** (EHDS) aims to support individuals to take control of their own health data and supports the use of data for better healthcare.<sup>2</sup>
- In **Ireland**, the **Sláintecare** health reform programme has goals around using digital technologies in health and social care.<sup>3</sup>
- The Department of Health has published the General Scheme for the **Health Information Bill 2023**.<sup>4</sup>
- The impacts of the **cyber-attack** in the Health Service Executive (HSE) and the **COVID-19** pandemic have brought about potential changes in attitudes to eHealth information technologies.

## Aim

- The Health Information and Quality Authority (HIQA), in partnership with the Department of Health and the HSE, is undertaking a **National Engagement on Digital Health and Social Care**.
- Evidence is being gathered on the attitudes, opinions, and comfort levels of the **public and professionals** around the digitalisation of health and social care.
- The engagement will identify potential benefits, challenges, and impacts of digitalisation for both the public and professionals across health and social care.



## Methods

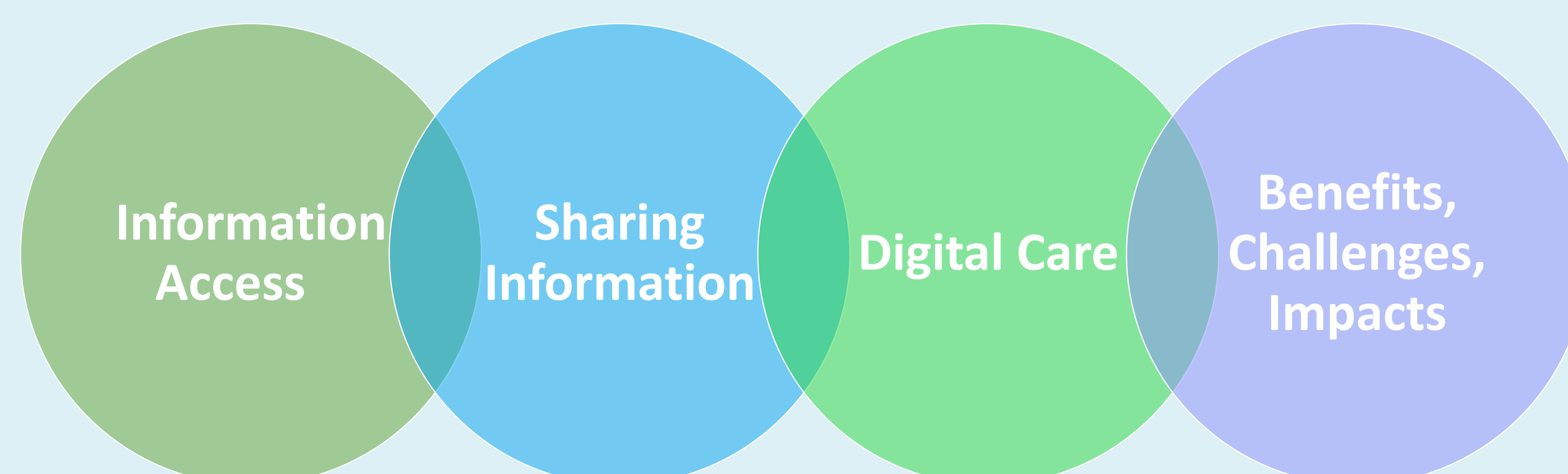
The National Engagement on Digital Health and Social Care involves five stages:

1. **Review of national and international engagements** on digitalisation of health and social care; consultation with relevant stakeholders; managed service; and HIQA colleagues.
2. **Undertake a national telephone survey with the public** on digital health and social care (n= 2009).
3. **Undertake a national online survey with professionals** in health and social care (dentistry, medicine, midwifery, nursing, pharmacy, pre-hospital emergency care, psychology, or registered with CORU (n=1020)).
4. **Focus groups** with both the public (n=8) and professionals (n=10).
5. **Analyse** the evidence, **prepare** the findings, and **publish** the report to inform policy, plans, and recommendation projects.

## Discussion

- The engagement will look at what digital access to information and digital services mean to the Irish public and professionals, people's expectations, how they would like to use digital information and services, and where the public and professionals are in terms of readiness for digitisation.
- The engagement findings will provide evidence and valuable insights to help inform national policy and legislation, future plans in health technology, and recommendations on the use of digital tools.
- HIQA, the Department of Health, and the HSE will use the findings to help progress digital health and social care in Ireland.

## Main Themes of the Surveys and Focus Groups for both the Public and Professionals



## References

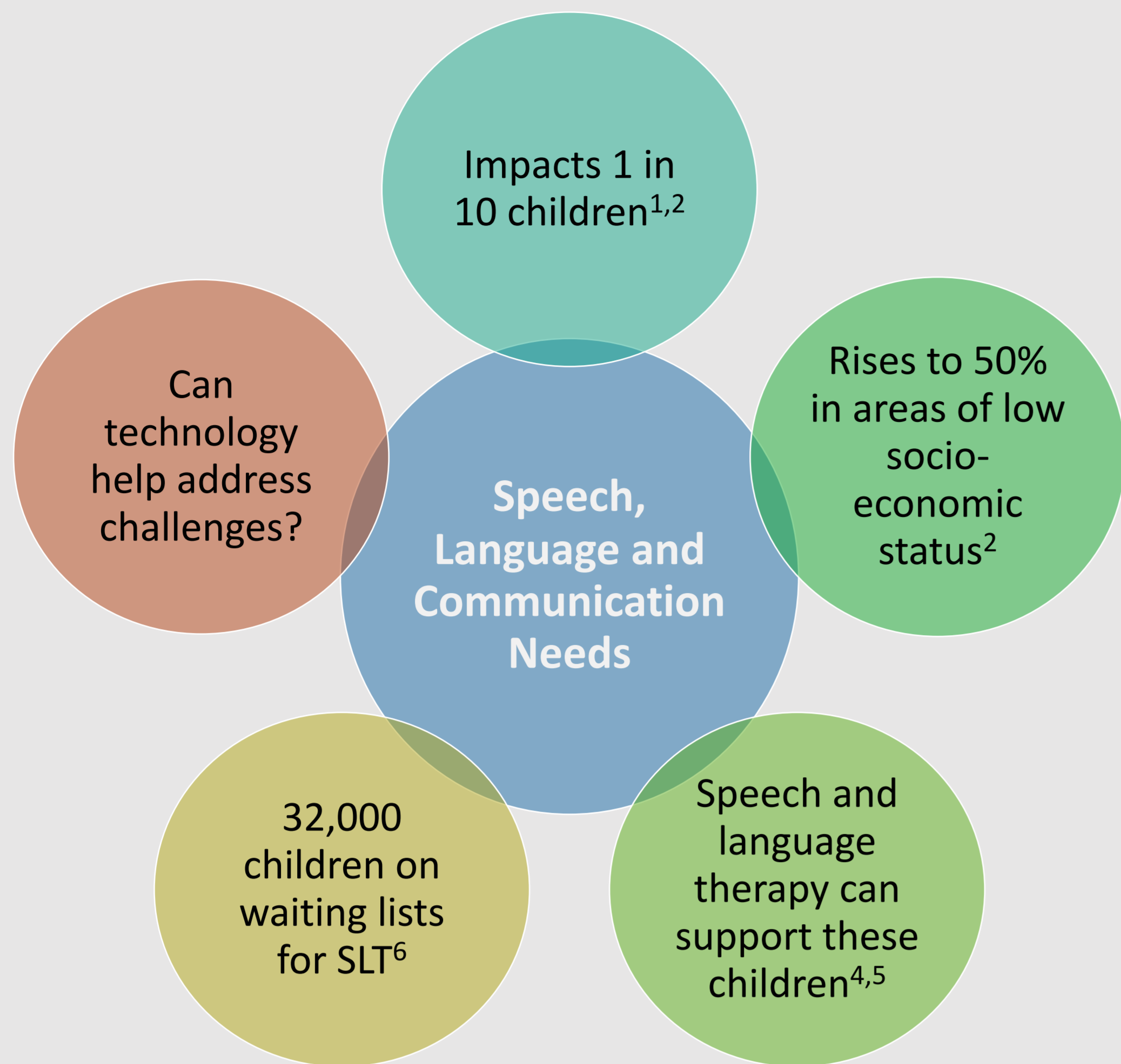
1. European Commission. Europe's Digital Decade: Digital Targets for 2030.
2. European Commission. ANNEXES to the Regulation of the European Parliament and of the Council on the European Health Data Space 2022.
3. Government of Ireland. Committee on the Future of Healthcare Sláintecare Report 2017.
4. Department of Health. General Scheme of the Health Information Bill 2023.

# Exploring Opportunities for Enhancing Speech and Language Therapy using Technology

Jane Sheridan<sup>a</sup>, Dr Keith Maycock<sup>a</sup>, Dr Duana Quigley<sup>a</sup>, Muireann McCleary<sup>c</sup>, Michael Bradford<sup>a</sup>, Mark Igushkin<sup>a</sup> & Dr Yvonne Lynch<sup>b</sup>  
 a: National College of Ireland, b: Trinity College Dublin, c: Central Remedial Clinic

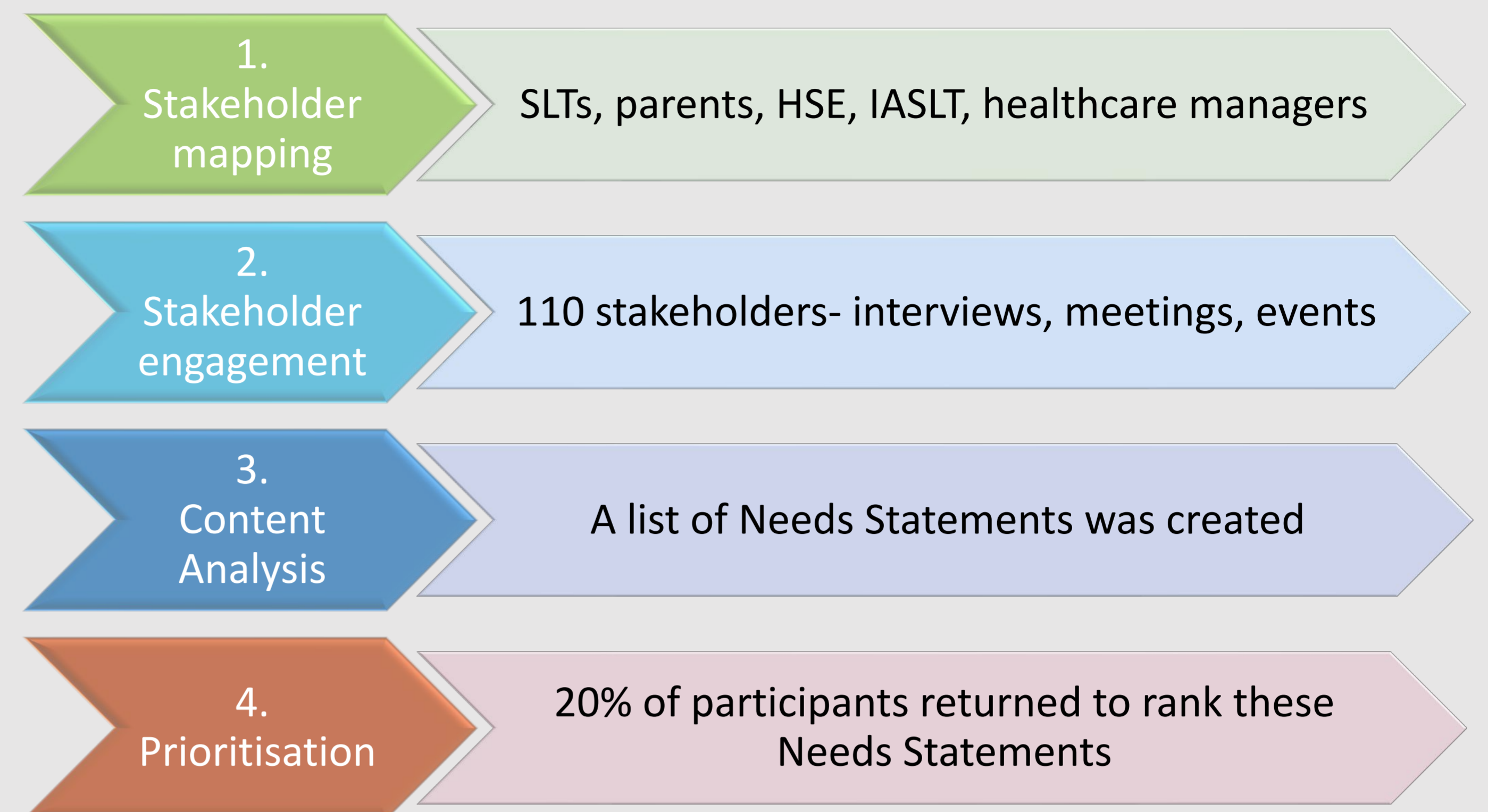


## Introduction



## Methods

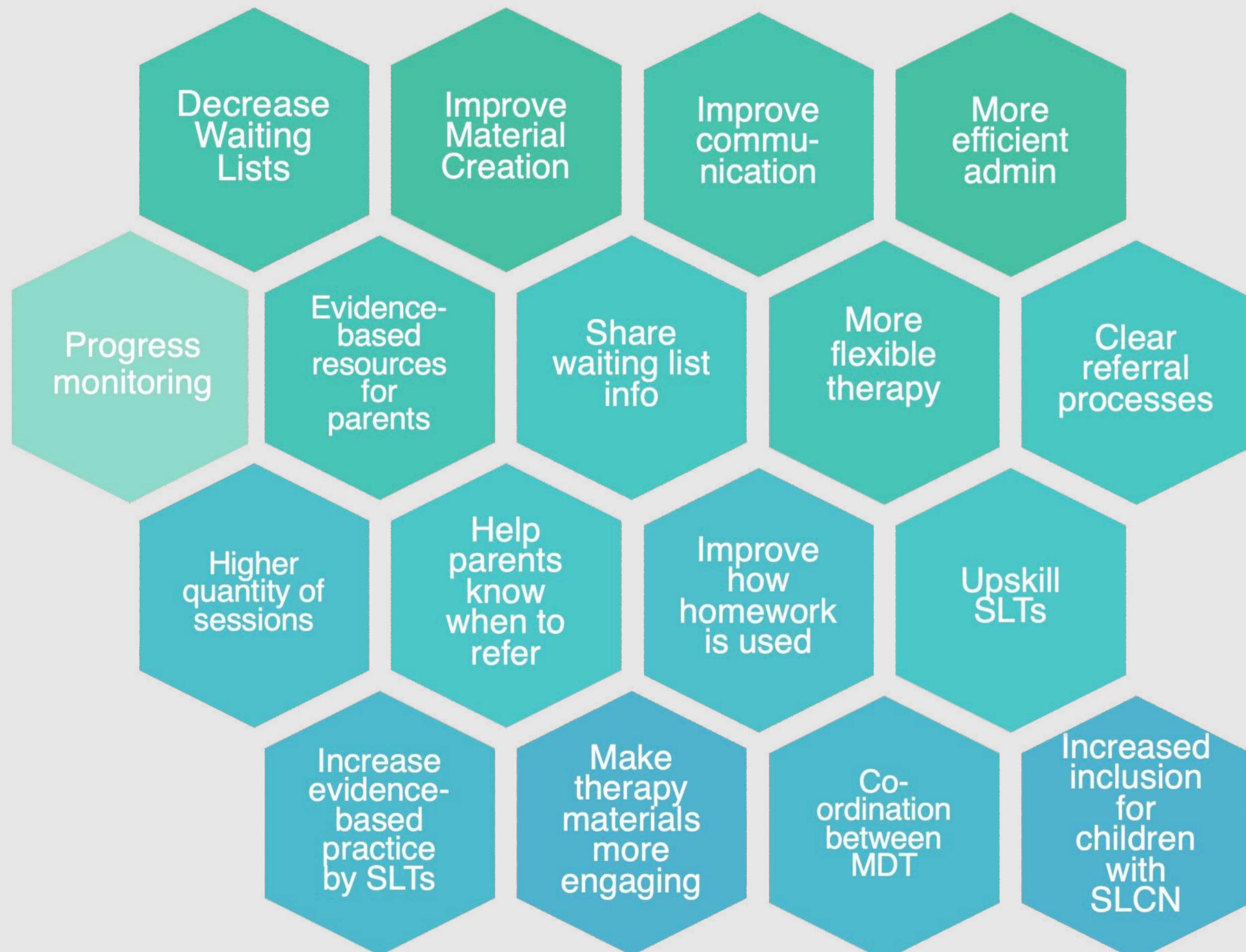
A Design Thinking Methodology was used



## Results

### Needs Statements

The Needs Statements created as a result of the stakeholder engagement process is summarised above. Unsurprisingly, reducing waiting lists and increasing quantity of therapy sessions were ranked the highest priority. However, other high priority statements included improving communication between therapist and family, and providing families with clear information about their child's progress.



### Proposed Solution

**Key need:**  
Empowering families to support their child outside the clinic room

#### Key features:

1. Enable communication between family and SLT
2. Support families to do SLT home practice
3. Allow remote coaching and feedback
4. Facilitate progress monitoring
5. Enable SLTs to monitor patterns of interaction and fine tune home practice.



## Discussion

Stakeholder engagement revealed many challenges that exist in the speech and language therapy service for children.

Technology could:

1. **Improve support for therapy goals** through better quality homework
2. **Increase practice dosage** leading to more progress
3. **Allow for better collaboration** through information sharing
4. **Reduce isolation** by providing real time feedback and interaction

*This project is funded through the EU Commission Recovery and Resilience Facility under the Science Foundation Ireland OurTech Challenge, grant number 22/NCF/OT/11328.*

## References

1. Law J, Boyle J, Harris F, Harkness A, Nye C. Prevalence and Natural History of Primary Speech and Language Delay: Findings from a Systematic Review of the Literature. *International Journal of Language and Communication Disorders*. 2000;35:165-188.
2. Bercow J. Bercow: Ten Years On: An independent review of provision for children and young people with speech, language and communication needs in England. London: ICAN. <https://www.bercow10yearson.com>. 2018.
3. Clegg J, Hollis C, Mawhood L, Rutter M. Developmental Language Disorders - a Follow up in Later Life. *Journal of Child Psychology and Psychiatry*. 2005;46:128 -149.
4. DeVeney S, Hagaman J, Bjornsen A. Parent Implemented Versus Clinician-directed Interventions for Late Talking Toddlers: A Systematic Review of the Literature. *Communication Disorders Quarterly*. 2017;0:110.
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6. Bermingham D. More than 60,000 Children on Waiting Lists for Vital Services [Internet]. *Irish Examiner*. 2022 [cited 2023 Nov 9]. Available from: <https://www.irishexaminer.com/news/arid-40938776.html#:~:text=Meanwhile%2C%20almost%2015%2C000%20children%20were>





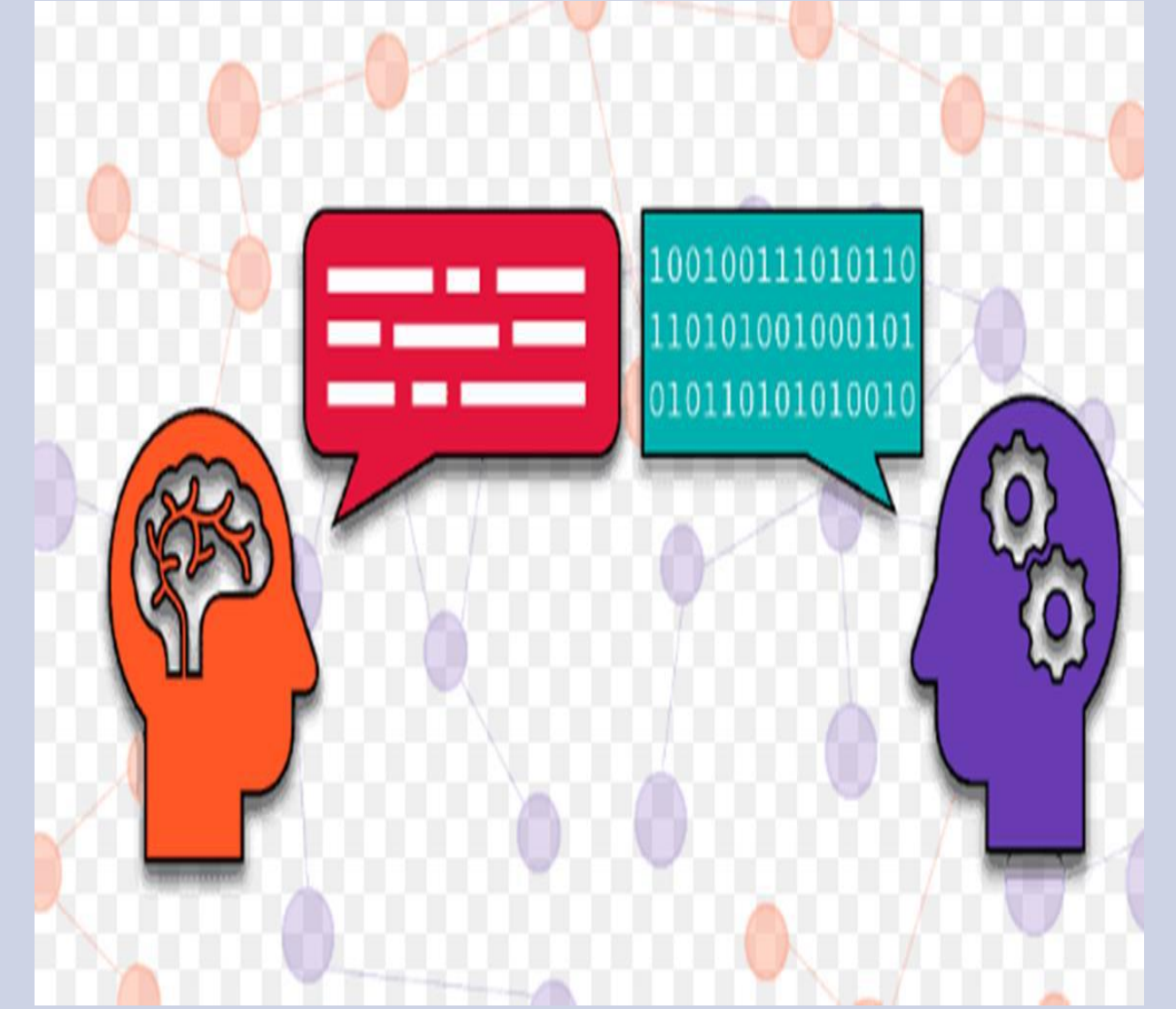
# A Multidisciplinary Approach to Developing a Data Set for Child and Adolescent Mental Health Services in Ireland



Authors: Jennie Synnott, Area DON CAMHS; Fiona Collins, Area Administrator; Lilly Walsh, General Manager Digital and ICT; Niall Clifford, Digital Health CKCH; Shanise Houlihan, Practice Manager

## Introduction

The concept of a dataset is common to almost every scientific discipline, the term occurs routinely in articles, papers and reports. For the purpose of this workshop for collecting and agreeing the data set for Child and Adolescent Mental Health Services (CAMHS) and the natural language used to operate CAMHS was collected. Workshops were organised with multidisciplinary clinical and administrative staff were then used to agree the terminology used in CAMHS. The process of collecting natural language (NL) terminology is referred to as semantic relatedness as the data set is about the same subject with similar content (Alexander, 2009). Data sets in the services own language would then be used for various tasks such as text classification, entity recognition and services delivery.



In this project NL was used to enable standardisation of terminology used and to submit to Data Specification and Management Process (DSMP) to enable the terminology to be considered by subject matter experts.

## Methodology

### Step 1

1. Agreement to use SNOMED-CT as choice for Standardisation
2. CAMHS Value stream was used as starting point
3. Young persons Journey through CAMHS mapped
4. For ease of discussion this was mapped into 3 categories

### Step 2

1. Scalability needed to be considered as we worked towards an ICT solution
2. Workshops developed by digital health team and CAMHS clinical staff and presentation developed
3. Key stakeholders identified across CAMHS services, across disciplines & across region
4. Request to Heads of Discipline to nominate staff to attend for 2 and a half hour face-to-face workshop planned
5. Request to go to DSMP

## Referral Management

	A	D	E
1		Referral Management	
2			
3	<b>Client Registration</b>		
4	<b>Name of Field</b>	<b>Type of Field</b>	<b>Field Content</b>
9	Young Person forename (observed)	Notes>50	
10	Young Person Patient surname	Notes>50	
11	Preferred Name	Notes>50	
12	Gender	Drop Down Single Choice	Male, Female, Unknown, Other
13	Young Person Date of Birth	Date Field	
14	Young Person Age	Pre Populate based on DOB	
47			
48			
49	<b>Register Referral</b>		
50	<b>Name of Field</b>	<b>Type of Field</b>	
62			
63			
64	<b>Incoming Contacts</b>		
65	<b>Name of Field</b>	<b>Type of Field</b>	
72			
73			
74	<b>Referral Outcome</b>		
75	<b>Name of Field</b>	<b>Type of Field</b>	
91			
92			
93			
94			
95			

## MDT Operations

30	<b>Internal Referrals</b>
31	<b>Name of Field</b>
32	Occupational Therapist
33	Social Worker
34	Social Care Worker
35	Psychology
36	Staff Nurse
37	CNS
38	ANP
39	clANP
40	Speech and Language Therapist
41	Consultant
42	NCHD
43	Senior Registrar
44	Family Therapist
45	Other, please describe

## Service Delivery

35		
36		
37	<b>Discharge</b>	
38	<b>Name of Field</b>	<b>Type</b>
39	Discharge Date	date
40	Discharged By	Singl
41	Discharge To	Singl
42	Reason for discharge	Note
43	Is the discharge checklist completed?	Singl
44	Date of Discharge letter sent	date

**Results: 216 Terms Agreed Upon**

## Workshop 1 Process

### Workshop's

Face to Face and online (2.5hrs)  
Presentation delivered to start  
Discuss on why developing a data set was important  
Presented the process would be followed during workshop  
1. Term consider  
2. Discussed if used across the service  
3. Agreed term was correct

### Process

Excel broken down into 3 areas  
  
Each term discussed  
  
Additional Aspects Considered and further Terminology in MDT operations and Service delivery considered  
COG considered and MHC language

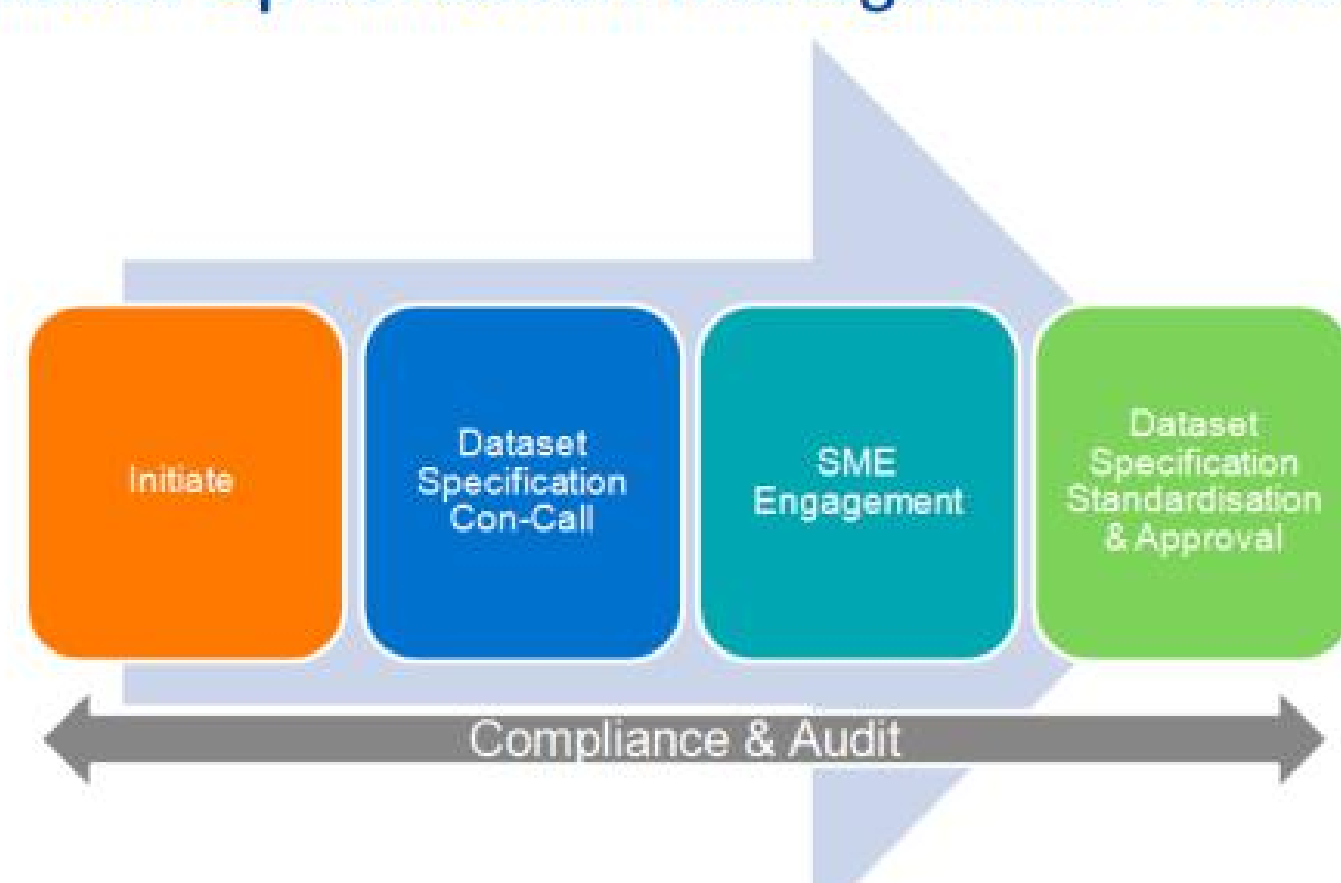
### Discussions

Was the term used across CAMHS?  
Why did we need that term?  
If not common language consensus on term to be used ahead  
Was the term used across CAMHS?  
Why did we need that term?  
If not common language consensus on term to be used ahead

### Proposed Data Set finalised

Excel Updated during workshops  
Circulated to members for Comment  
Deadline to agree final version Excel finalised  
Date set to met Subject Matter Experts on the 20<sup>th</sup> of October 2023

## Dataset Specification Management Process



## Terminology presented to DSMP Subject Matter Experts (SME) Feedback Received:

- Be specific about terms
- Lowest level of free text boxes parameters can not be used for demographics/data analysis
- Consider including Regional Health Areas and terminology associated with
- Consider using PPSN and/or IHI
- Coding for HIPE
- Need to develop a data dictionary
- Ethnic group and citizenship include but keep separate

- Use Eircode not post code
- Consider gender or sex at birth
- Health innovation board
- Meeting to be arranged Align to Central statistics Office
- Separate the 'county' field to enable filtering by county
- Reference Set under development now.
- Consider working with Test Lab
- Consider running pilot

### Acknowledgments

The Authors would like to acknowledge the support and involvement of the Multidisciplinary teams in Cork Kerry Community Healthcare for all their work on this project. Particularly, Una Brown SLT, Michael Kavanagh SW, Siobhan Wells OT Manager, Rosalie Roddy SLT and the Cork Kerry CAMHS ID team.  
  
We would also like to recognise the CAMHS Heads of Discipline who nominated their staff to attend the workshop and the Head of Service, Mental Health., Julie O'Neil for the authority to conduct the workshops with Staff.

# Importance of Information Management Standards to Underpin Digital Transformation in Ireland

## 1. Aims and Objectives

In 2022, HIQA initiated the development of *Draft National Standards for Information Management for Health and Social Care*. The aim of these standards is to contribute to safer better care by improving the management of health and social care information.

## 2. Methodology

The development of the *Draft National Standards for Information Management in Health and Social Care* was guided by HIQA's standards development process including: completing an evidence synthesis, convening an advisory group, and undertaking public and targeted consultations (**Figure 1**).

## 3. Results

The standards were revised based on the findings of the evidence synthesis and extensive engagement. The scope of the standards includes all organisations and services within HIQA's legislative remit (excluding designated centres). The four principles that underpin the standards include: human rights-based approach, safety and wellbeing, responsiveness and accountability.<sup>1</sup> The feedback emphasised that a focus 'safety and wellbeing' should underpin and promote best practice. There was also positive feedback on the need to promote individual's data rights, to effectively engage with all stakeholders and to develop staff capability and capacity for information management.

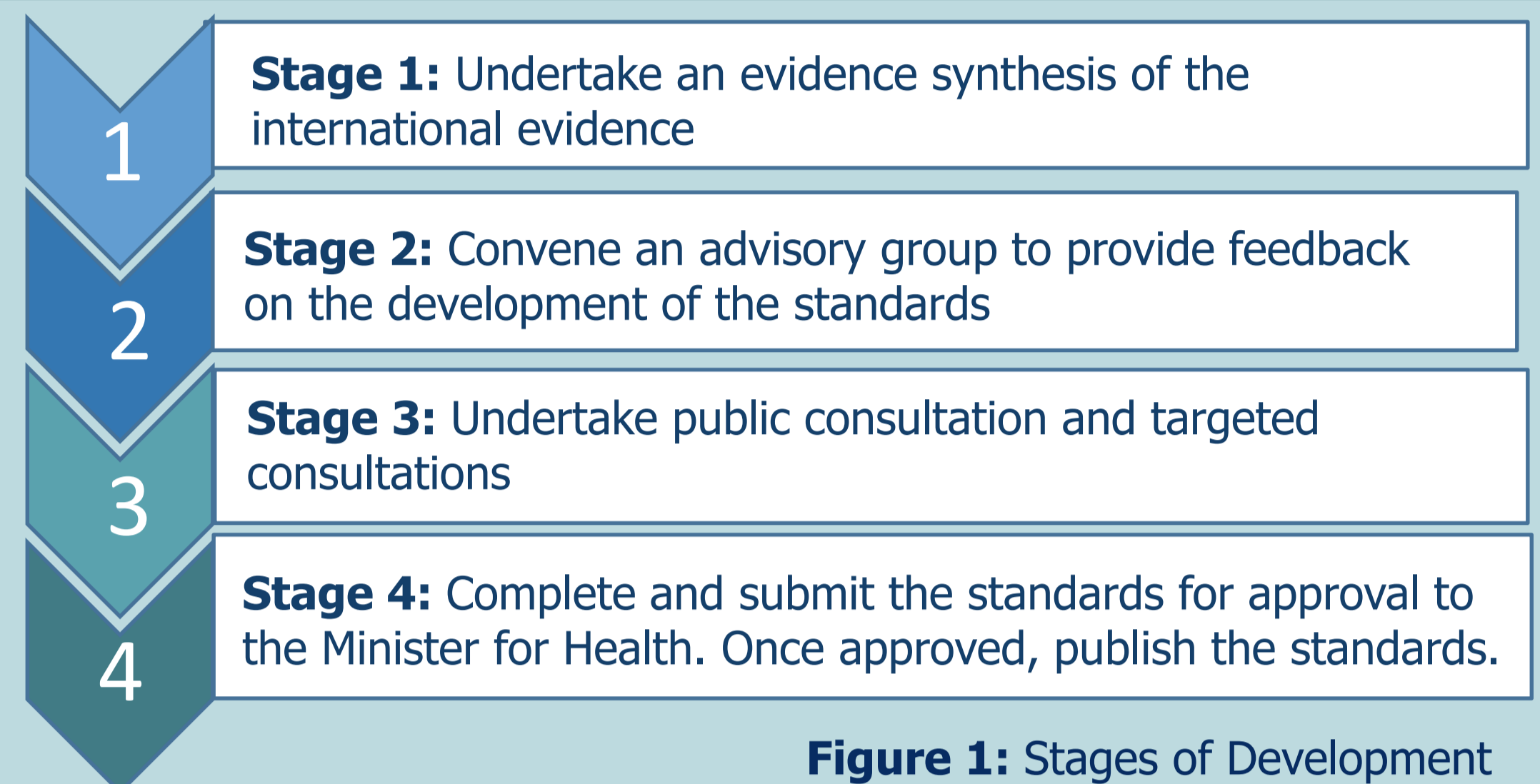
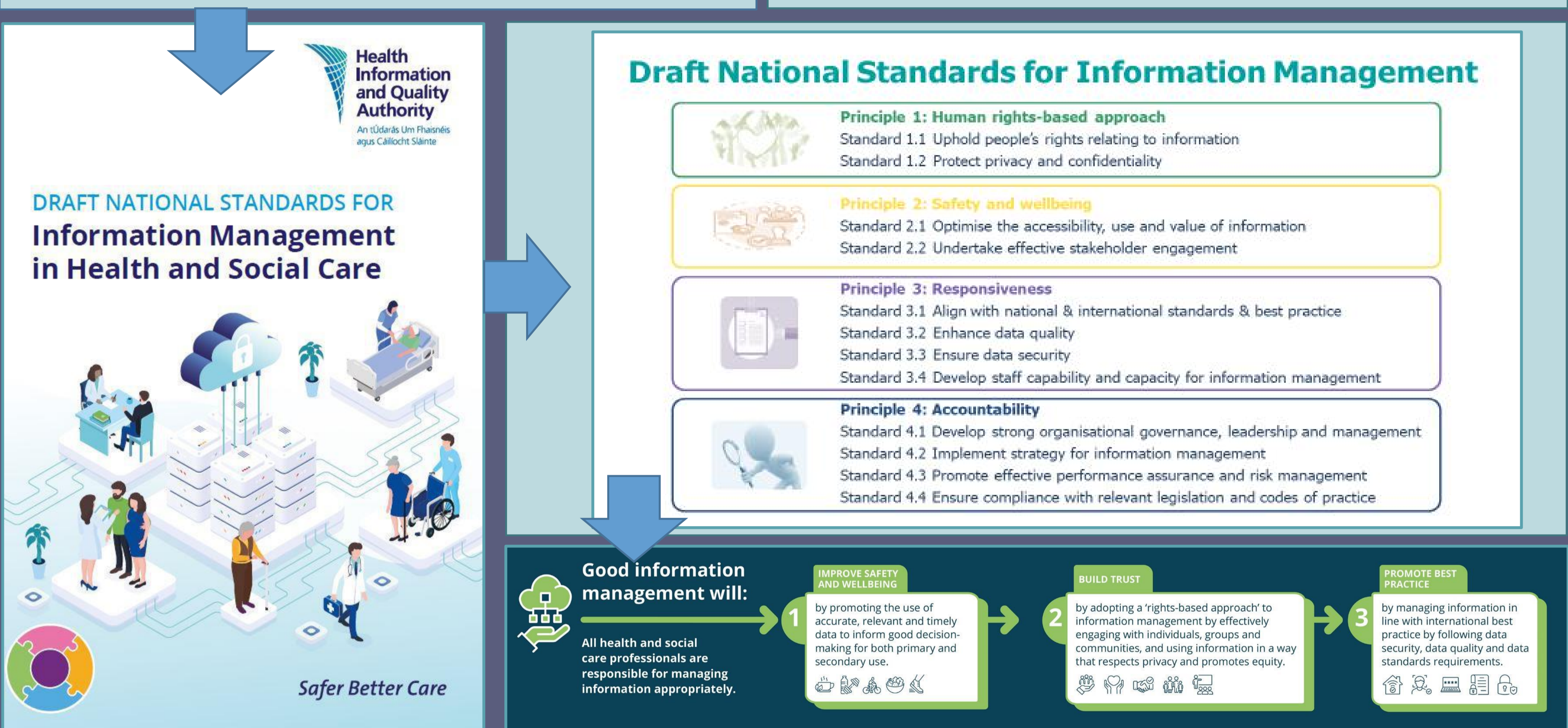


Figure 1: Stages of Development



## 4. Discussion

Having access to timely, accurate and relevant information is the foundation to high quality and safe service provision.<sup>2</sup> It is critical that organisations have the appropriate structures, systems, policies and procedures, according to evidence-based standards, to ensure data collected is of the highest quality and used to its full potential to promote safer better care, improved outcomes and overall wellbeing.<sup>3</sup>

The National Standards for Information Management, and associated guidance, will help organisations to develop and embed good information management practices by outlining best practice for health and social care professionals in areas such as data quality, data security and data standards. Enhancing these skills is crucial to underpin digital transformation and to realise the person-centred healthcare system envisioned in Sláintecare.<sup>2-3</sup>

## References:

1. Health Information and Quality Authority. Standards Development Framework: a principles-based approach. Dublin: 2021.
2. Health Information and Quality Authority. Key considerations to inform policy for the collection, use and sharing of health and social care information in Ireland. Dublin: 2022.
3. Health Information and Quality Authority. Draft National Standards for Information Management in Health and Social Care. Dublin: 2022.

## Authors:

Maria Ryan, Julia Johansson, Barbara Foley and Rachel Flynn.

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# Sharing the Vision of Digital Transformation in NFMHS

Marie Byrne<sup>1</sup>, Daniel Varghese<sup>2</sup>, Eoin Markham<sup>2</sup>

Project TIDE NFMHS Implementation Team

1 Community eHealth, 2 NFMHS



## Background:

In Ireland, forensic mental health services are provided at the National Forensic Mental Health Service (NFMHS), located in Portrane. NFMHS caters for patients admitted under the criminal law insanity act and mental health act. In 2018, a process to procure a Clinical Management System began. TrakCare was the system chosen. NFMHS went live on August 28<sup>th</sup> 2023 using a big bang approach.

## Aims and objectives:

- Support the NFMHS vision to move to a digitally enabled hospital
- Provide a solution that is scalable, future-proofed & aligned with SlainteCare, the HSE Corporate Plan, eHealth Strategic Goals, Shaping the Vision and enables compliance with Mental Health Commission Rules & Regulations
- Enhance digital capabilities
- Provide data required to drive system wide improvement
- Deliver early benefits for Patients, NFMHS and the HSE

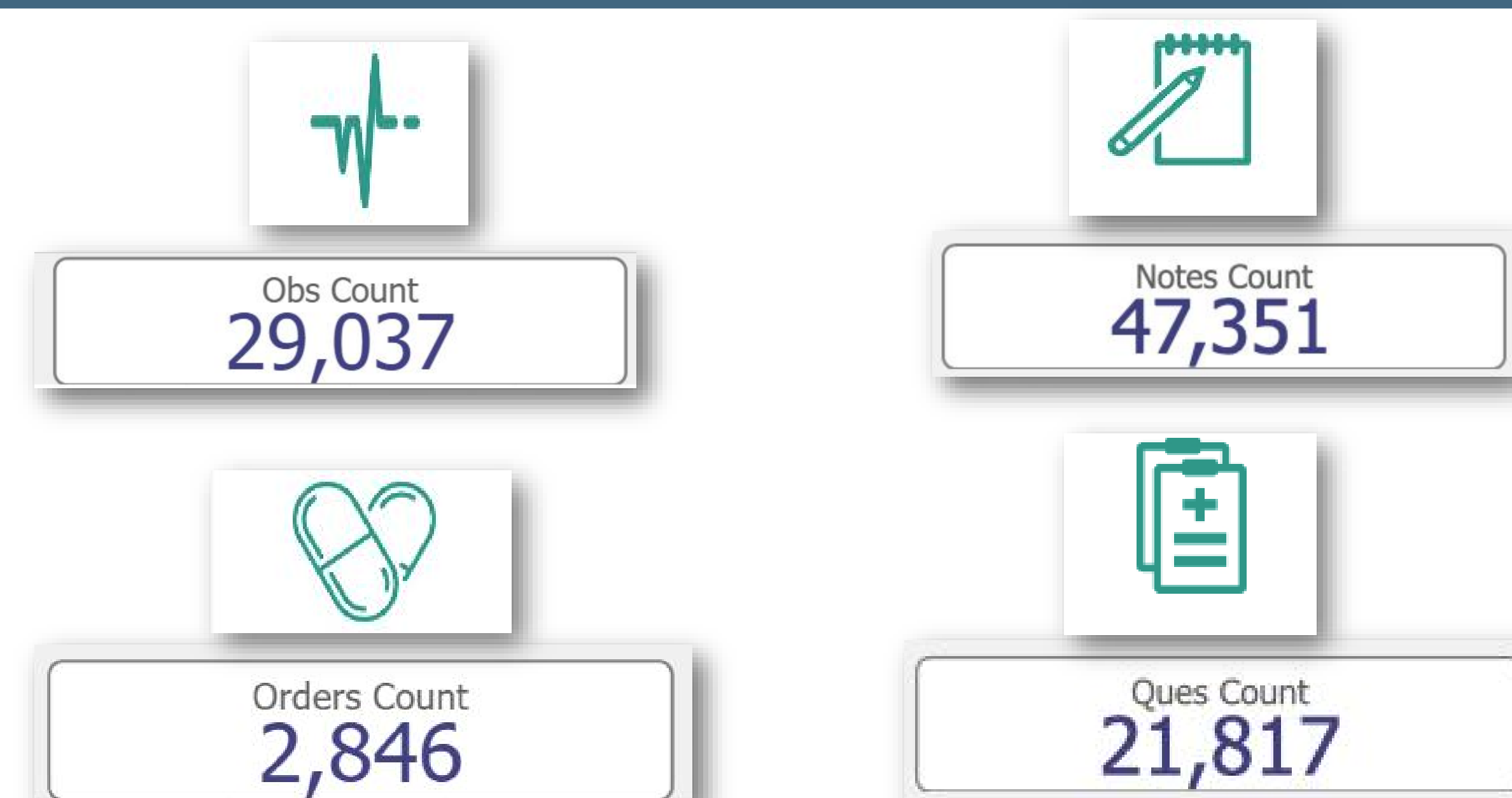
## Methodology:

A partnership approach across NFMHS, eHealth, Vendor & NRH. Vendor project management methodology was used.

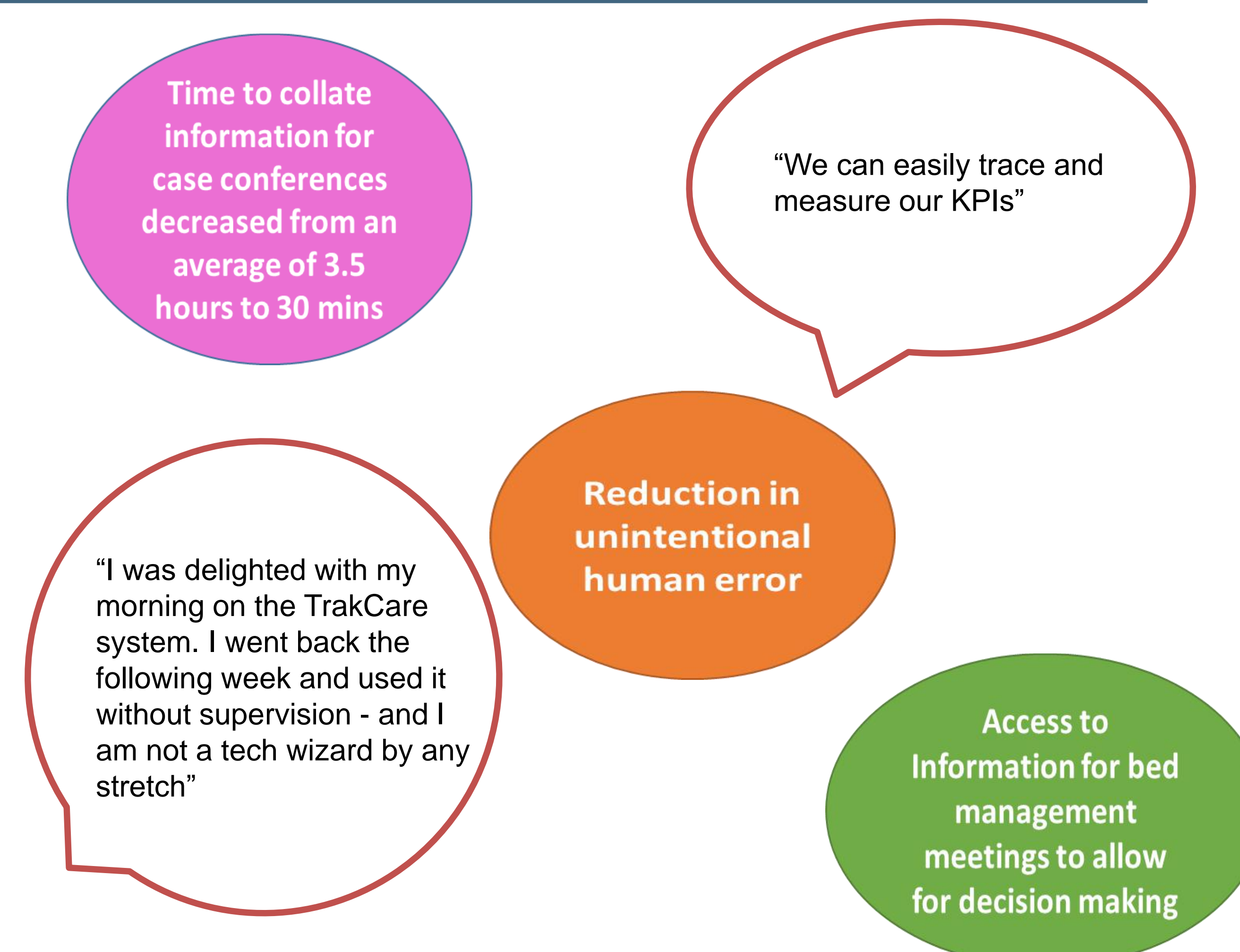
## Results:

Extensive footprint of functionality implemented: Patient administration system (PAS), Clinical documentation, Order Communications, Reporting & Analytics, Mental Health Administration (MHA) and ePrescribing & Medication Administration (ePMA).

## System Use/Adoption:



## Benefits:



## Lessons Learned:



## Challenges:

- Hospital move from Dundrum to Portrane November 2022
- Diverse stakeholder group to allow for consensus
- Resources
- Digital readiness
- Covid 19
- Network & firewall upgrades

## Discussion:

Optimization ideas formulated and will be ongoing; fully leveraging SNOMED coding in the system, device integration, expansion to new service areas and laboratory system integration. This project marks a significant advancement for NFMHS and healthcare in Ireland. Sharing of Lessons Learned and Benefits realised will be key to buy in and continually improving the roll out of CM systems nationally.

## INTRODUCTION

- Across Europe, 77% of allergy and asthma services do not have specific support for adolescents, with lack of time and resources such as staff the main barriers.<sup>1</sup>
- Recent guidelines<sup>2</sup> and reviews<sup>3</sup> have outlined the need for interventions for adolescents to support self-management of their allergic condition to achieve effective transition
- Telehealth is the use of technology in delivering health care remotely, however, it is not known if this method is appropriate for delivering such support
- No previous reviews have been identified that are specific to this population but are broad in terms of the telehealth interventions examined.

## AIMS

- to describe telehealth interventions that can be used to aid transition to self-management among adolescents with allergic conditions,
- to determine their impact on self-management, health and economic outcomes
- to explore their implementation outcomes.

## METHODS

### Search strategy:

Databases CINAHL, PubMed, Embase and PsychInfo were searched. Searches were restricted by English language and publication date of the last 5 years.

### Eligibility:

Studies were included:

- whose population were adolescents
- with any allergic condition.
- The intervention had to be delivered by a telehealth modality
- and include aims that promote self-management or the transition process.

### Quality appraisal:

The Mixed Methods Appraisal Tool (MMAT)

### Data extraction:

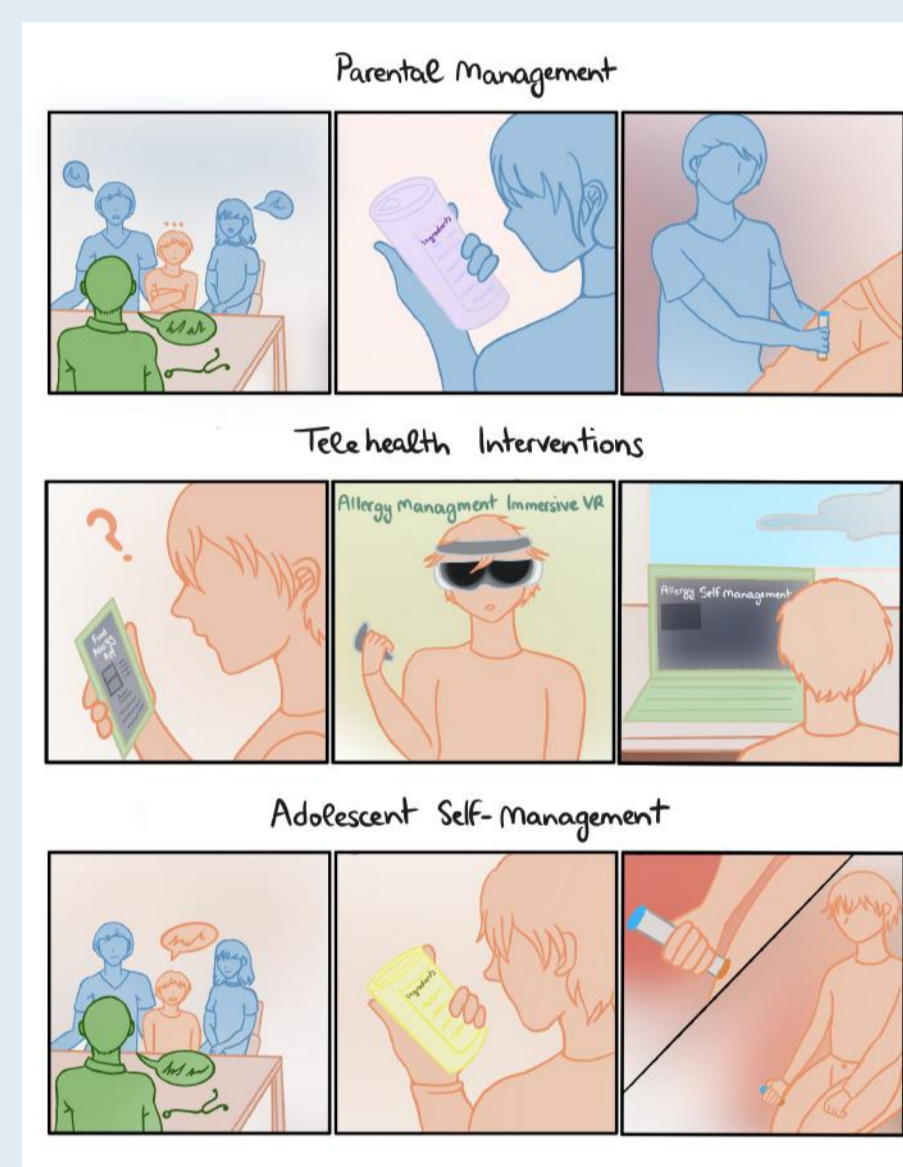
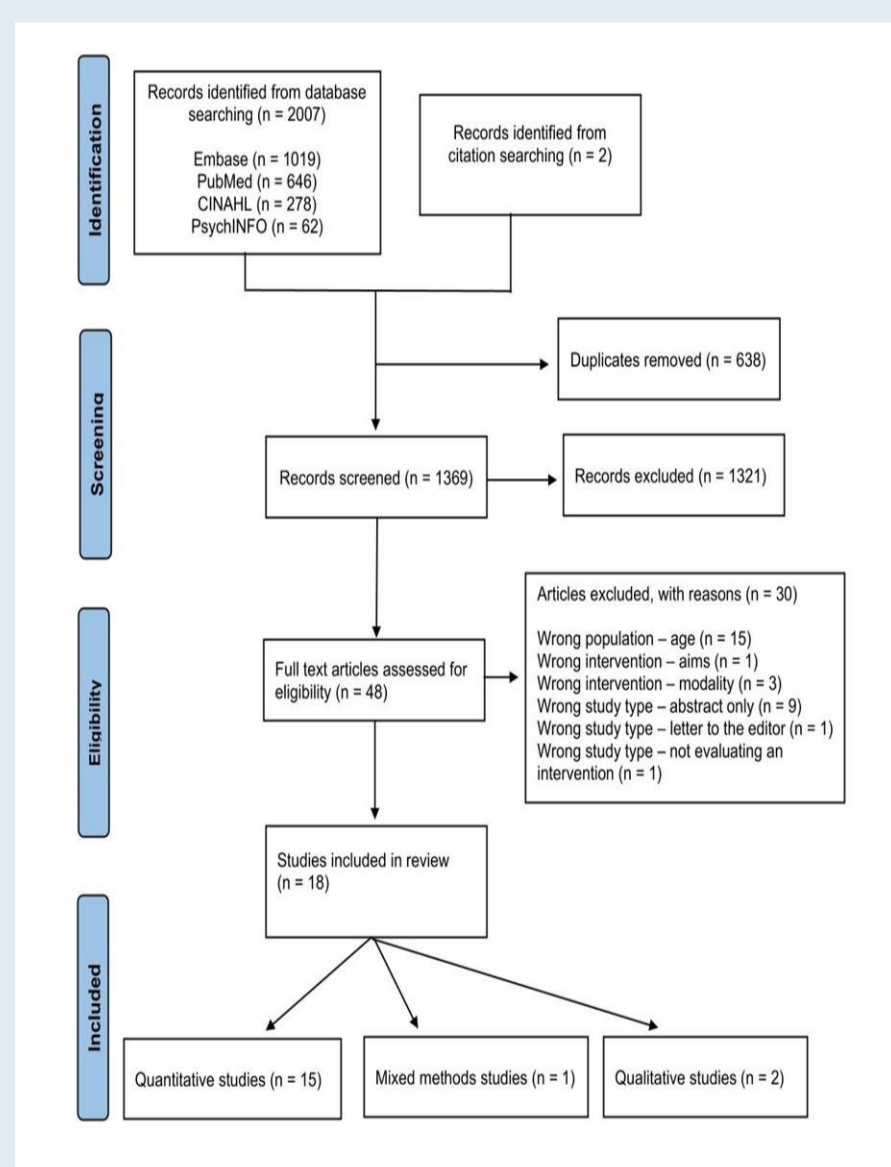
Data extracted included country, study aim and design, setting, participants age condition, and number, including enrolment and attrition rates.

The content of the interventions were categorised into educational, monitoring, behavioural, psychosocial and healthcare navigational aspects. Outcomes were categorised into self-management, health, economic and implementation outcomes.

### Data synthesis:

Descriptive summary tables were produced, and a narrative synthesis of the data was undertaken, as per the guidance from the ESRC Methods Programme.<sup>4</sup>

## RESULTS



### Outcomes:

**Self-management:** 3 studies measured knowledge, all with statistically significant results. Adherence was measured by 4 studies, with significant results mainly in patients who are poorly adherent to begin with.

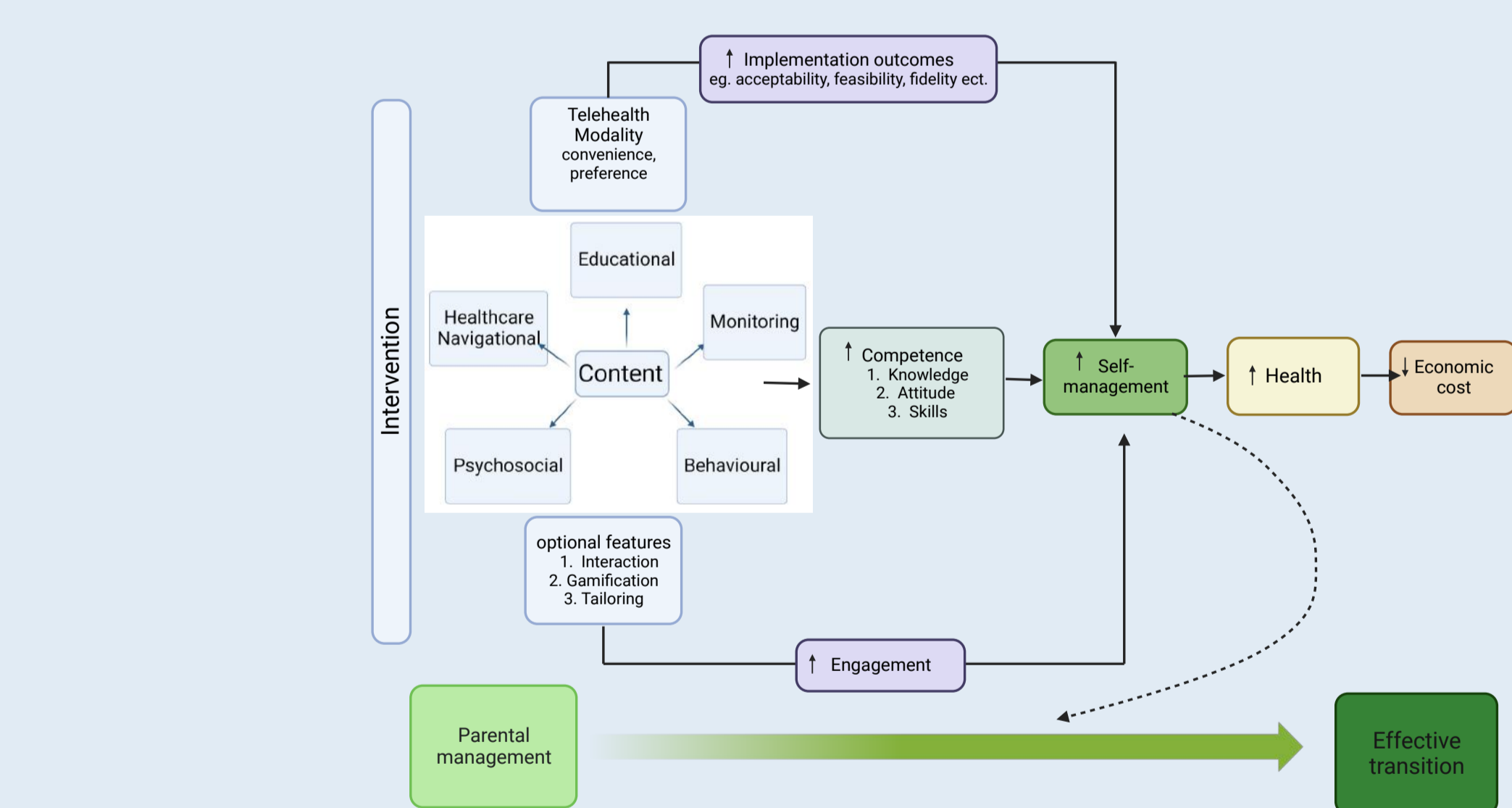
**Health:** Quality-of-Life was measured by 5 studies, and asthma control by 10 studies, with mostly positive results.

**Economic:** Healthcare utilisation in the form of ED visits, urgent care visits or hospitalisations had encouraging results but missed school or work was quite mixed.

**Implementation:** Acceptability and appropriateness were rated highly, but fidelity and feasibility was varied. Other implementation outcomes were poorly reported.

Reference	Telehealth type	Intervention name	Duration	Development		Content				Features						
				Theory-based	Evidence-based	Stakeholder input	ED consideration	Educational	Monitoring	Behavioural	Psychosocial	Healthcare	Gamification	Tailoring	Interaction	
Al Raimi et al. 2022a, <sup>42</sup> 2022b <sup>41</sup>	Mobile application	MemhamiAsma	3 months													
Kosse et al. 2019a, <sup>48</sup> 2019b <sup>49</sup>	Mobile application	Adolescent Adherence Patient Tool (ADAPT)	6 months													
Faraji et al. 2020 <sup>46</sup>	Mobile application	Telegram-based education	5 sessions of 50 minutes each, intervals of 3 days													
Fedele et al. 2021 <sup>47</sup>	Mobile application	Applying Interactive Mobile health to Asthma Care in	20 weeks including 2 one-week assessment of needs													
Gallagher et al. 2019 <sup>48</sup>	Mobile application	Simply Epi	5-minute run in period to practice using the app.													
Roberts et al. 2019 <sup>44</sup>	Mobile application	iAsthma and AsthmaMD	1 week													
Schneider et al. 2020 <sup>50</sup>	Mobile application	Adolescent-friendly asthma management app	3 months													
Kowatsch et al. 2021 <sup>51</sup>	Mobile application & artificial	MAX	14 sessions, average duration 3 weeks													
Ramsey et al. 2022 <sup>52</sup>	Mobile application & video-	Technology-assisted stepped care: BreatheSmart	Baseline, step 1 +/- step 2. Overall mean													
Vallabhan et al. 2021 <sup>53</sup>	Video-conferencing	New Mexico Pictorial Asthma Action Plan (NM)	3 sessions 30 minutes each. At day 1, day 7 and													
Lin et al. 2020 <sup>51</sup>	Video-conferencing	Video-based telehealth	6 months overall. 7 medical sessions, 5 self-management													
Engel et al. 2023 <sup>45</sup>	Video-conferencing	Teen Talks	Monthly, 1 hour each.													
Joseph et al. 2018, <sup>49</sup> Lu et al. 2019 <sup>52</sup>	Web-based	Puff City	4 sessions lasting 15-30 minutes each													
Brzesse et al. 2021 <sup>44</sup>	Web-based	Controlling Asthma Program for Adolescents (CAMP)	7 modules, asked to space modules by 1 week.													
Kim et al. 2022 <sup>44</sup>	Virtual reality	Environmental management immersive VR	15 minutes													

Intervention characteristics.



Visual representation of logic model: relationship between intervention characteristics and results

## Conclusions

- This review strengthens what is known about these interventions' characteristics and implementation.
- Many outcomes have been shown to be either better than or to have no significant difference with active controls, with high acceptability for the telehealth interventions.
- Healthcare professionals should consider implementing telehealth interventions in practice to support self-management in accordance with EAACI transition guidelines.
- Our findings showed that careful development with evidence, theory and stakeholder input can lead to high-quality interventions.
- Nurses are an untapped resource, with only one included intervention involving nurses interacting with adolescents. Future research should study the potential of nurses for HCP interaction in these interventions.
- Larger scale studies are needed in Europe and in allergic conditions other than asthma.

# Implementation of Video Enabled Care in Maternity Services, University Hospital Kerry

Author: Omana Paul, (Project Lead ) CMM3, Maternity services, UHK

## Context

### Background

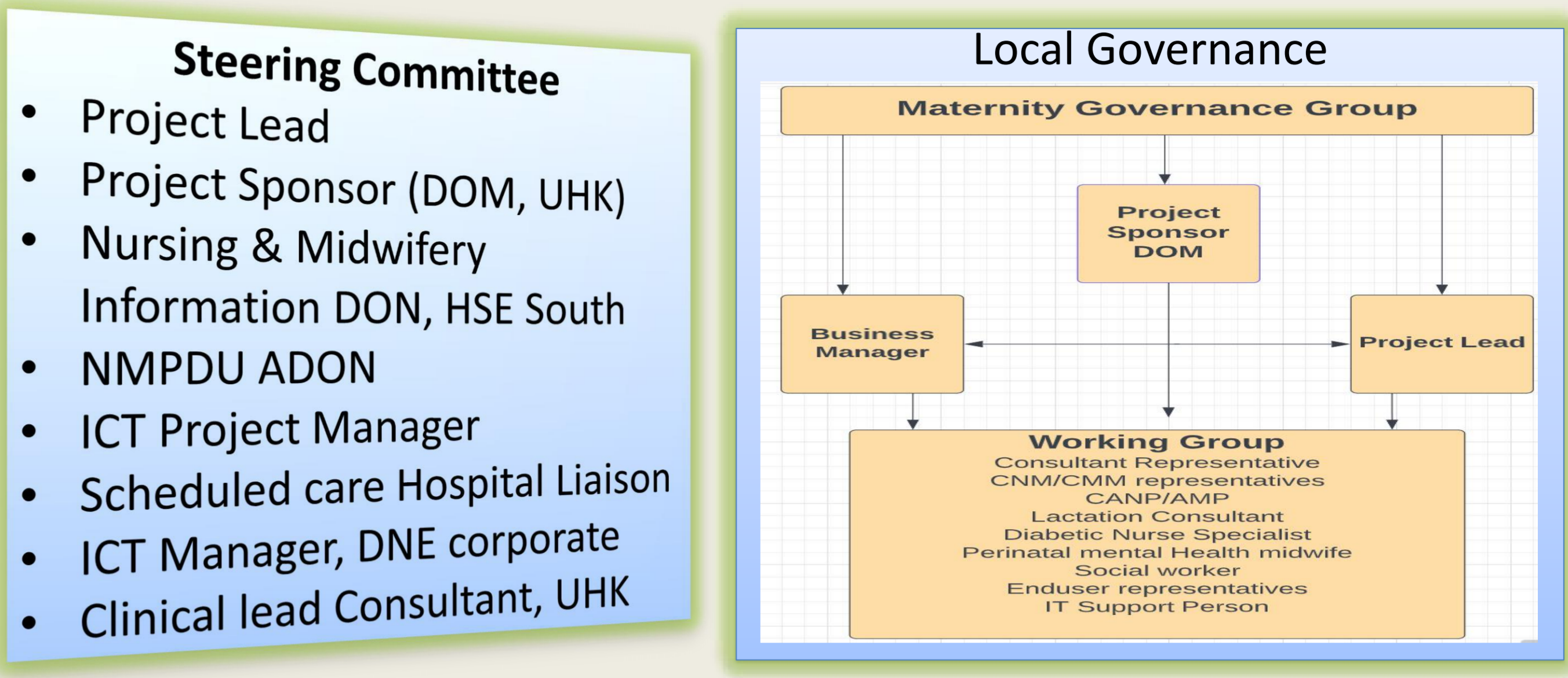
Sláintecare Reform Programmes 2021-2023 encourage eHealth activities to keep people well in their communities and/or in their homes, with better acute demand support management in the hospitals. While in some settings the patient's in-person attendance is critical however, such is not required in all settings. eHealth platforms are needed that allow information to be shared in accordance with the patient's consent, regardless of location.

### Project

Video Enabled Care (VEC) is a web-based application that allows healthcare providers to offer access to their services via video calls as part of business-as-usual operations in accordance with patients' preferences thereby, offering a blended care approach to healthcare. **This project implemented in Maternity Services in University Hospital Kerry to support the delivery of healthcare to Antenatal and Gynaecology patients/service users where they will get the chance to interact with the healthcare provider in a personal level. It allows to respond effectively to outbreaks of diseases, unexpected unplanned challenges, adverse weather conditions and other instances, where face to face appointments may be impossible or inadvisable.**

## Stakeholder Engagement & Governance

The project was implemented as per the National Strategy for VEC. An External Steering Committee and Local Working Groups were formed to support delivery.



This project was undertaken in collaboration with the Nursing and Midwifery Planning and Development Unit (NMPDU) and eHealth Ireland. The Project Lead collaborated with external and internal stakeholders including end users through regular formal and informal meetings. for this agile project implementation

### Short Term Goals

- The **short term goals** were:
- Engage with eHealth Ireland and NMPDU and complete the process of national strategy on VEC.
  - Identify possible areas for VEC implementation.
  - Conduct pre-implementation survey amongst patients and staff.
  - Implement Phase 1 of the project in two clinics that were identified.
  - Conduct post-implementation survey amongst patients/service users.

### Aims

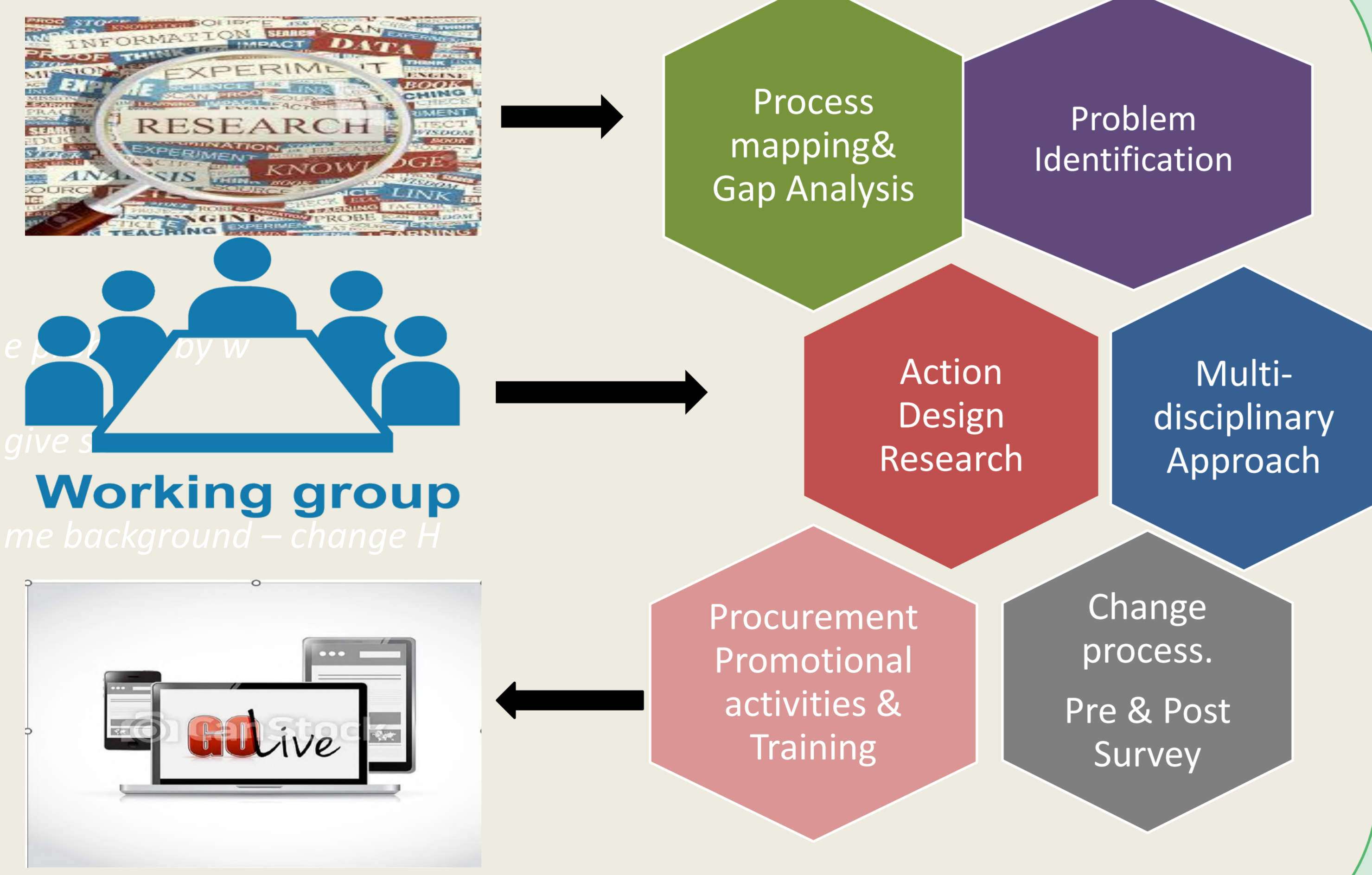
- The **aims** of this project in UHK were to:
- Improve patient outcomes.
  - Increase patient engagement and satisfaction.
  - Increase patient throughput.
  - Reduce healthcare worker burnout.
  - Provide access to new specialties.

### Long Term Objective

The **long-term objective** of this project is to implement VEC Services to support the following areas:

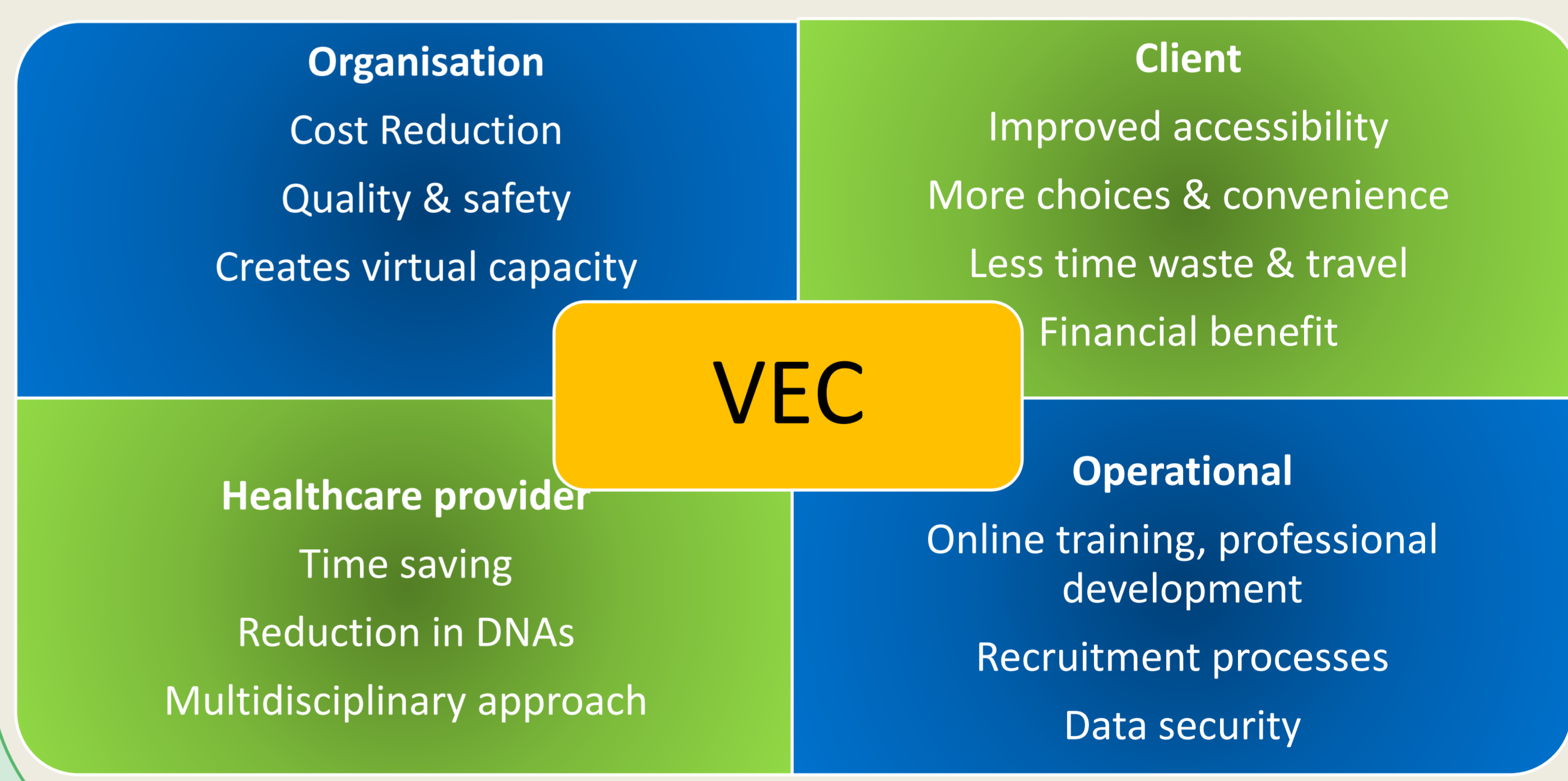
Scheduled/unscheduled appointments	MDT Interaction
Group Education Session Delivery	Support home visits
Family member interactions	Discharge preparation
Staff Meetings, daily handover, timetabling	HSE Staff training

## Approach Taken



## Outcomes

The outcome of this digital health transformation project is the implementation of VEC in UHK. This quality initiative programme initially replaced the existing telephone antenatal booking clinic and antenatal diabetic clinic. The benefits of this project are:



## Next steps

- Embed the culture of change among more services.

Expand the VEC to the identified areas in UHK.



Compare the pre and post survey results to quantify the benefits of Video consultations; utilise it for the positive change.	✓
Setting up of more staff on Attend Anywhere Platforms; creation of more waiting rooms as the need arise.	✓
Training of staff in the other identified areas ; procuring of equipment & hardware for those areas.	✓

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- 0873996646

### References

- <https://www.gov.ie/en/publication/6996b-slaintecare-implementation-strategy-and-action-plan-2021-2023/>
- <https://www.ehealthireland.ie/ehealth-functions/community-health/telehealth-programme/video-enabled-care-vec/>
- <https://healthservice.hse.ie/staff/procedures-guidelines/digital-health/video-enabled-care/about-video-enabled-care/>

### Acknowledgements:



HSE Health and Wellbeing

# Using the Behavior Change Wheel to inform the specification for a digital platform

Dr Blathin Casey<sup>1</sup>; Eimear Cotter<sup>1</sup>; Sarah O'Brien<sup>1</sup>;

1. Health Service Executive, HSE Health & Wellbeing, Healthy Eating Active Living Programme, Dublin, Ireland [healthyeating.activeliving@hse.ie](mailto:healthyeating.activeliving@hse.ie)

## INTRODUCTION

The WHO puts a focus on the importance physical activity in the health care systems recommending “the integration of physical activity promotion into health care systems and policies and the provision of adequate resources and support [to] strengthen the use of preventive exercise prescription in the management of patients with chronic diseases”<sup>1</sup>. There is currently no consistent or coherent supported pathway in the Irish health system for patients who receive a brief intervention on physical activity to connect in with services or programmes to increase their activity levels and lead to active participation. The Healthy Eating Active Living Programme, HSE Health & Wellbeing, are designing and supporting implementation of a Physical Activity Pathways in Healthcare Model (PAPHM) to address this gap.

The COM-B model and Behaviour Change Wheel (BCW) provides coherent theoretical framework for understanding behaviour and informing intervention design Behaviour change techniques are the active component of an intervention designed to change behaviour<sup>2</sup>. The Behaviour Change Techniques Taxonomy (BCTT) v.1<sup>3</sup> is a hierarchically structure taxonomy consisting of 93 distinctive, non-overlapping behaviour change techniques (BCTs) clustered into 16 groupings. Critically understanding the context within which interventions are to be delivered is key to successful delivery. The APEASE criteria provides a framework for understanding which are most appropriate for their context, most likely to be implemented and have an impact.

An initial assessment of existing digital platforms currently in use within the Irish health service identified that there wasn't an ‘off-the-shelf’ product that we could readily use and a public procurement process was required. The technical specification sets out the objective characteristics and scope of what the contracting authority wishes to procure and must be specified in the contract documents.

## OBJECTIVES

Develop a technical specification for a digital platform to support implementation of Physical Activity Pathways in Healthcare Model (PAPHM) using:

- A behavior change theoretical framework, and
- Insights from target audience

## METHODS

A three stage process was used.

**STAGE 1** – A qualitative research report was commissioned to understand what individuals at risk of, and/or living with chronic disease want from an interaction with a HCP (in primary care) to:

- Enable them to become/remain physically active
- Identify what such a pathway might look like in terms of signposting/and or referral methods

The research was carried out by Research Team in South East Technical University (SETU) led by Dr Brona Kehoe. Voluntary response sampling, through HSE communication channels was used to recruit participants. Resulting in N=22 participants 11 male, 11 female. Data was collected using Semi-structured Interviews. Interview schedule was designed based on COM-B model. Interviews explored:

- Explored experiences and preferences in relation to interactions with HCPs in primary care regarding PA
- Participants were presented with outline of a digital platform and views on the appropriateness obtained

Data analysis used a hybrid analytic approach using thematic and inductive analysis. COM-B model was applied to outcomes. Research Report: *Understanding the needs and experiences of individuals at risk of and living with chronic disease: Exploring physical activity pathways in the Irish Health Service* was submitted to HSE.

**STAGE 2** – Carried out by the HSE team, led by Dr Blathin Casey. Desk-top review of Research Report: *Understanding the needs and experiences of individuals at risk of and living with chronic disease: Exploring physical activity pathways in the Irish Health Service*. For each step in this stage, two authors carried out the initial data extraction and categorisation. This was followed by a meeting of the three authors to review, and agree categorisation.

**Step 1:** recommendations and BCTs extracted from the research report into an X-L document, mapped against BCW Intervention functions.

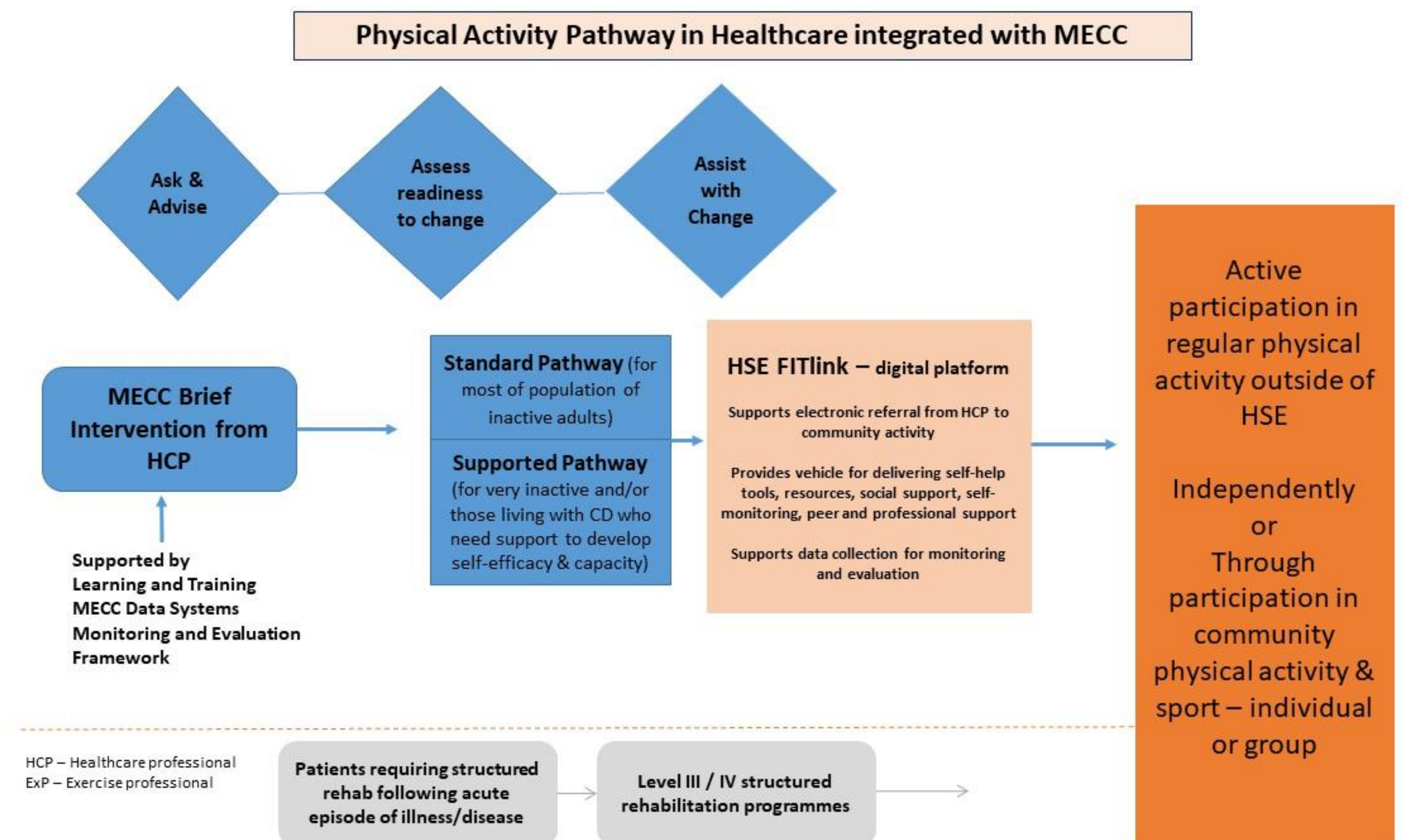
**Step 2:** APEASE criteria used to assess Affordability, Practicability, Effectiveness & cost-effectiveness, Acceptability, Side-effects/safety, Equity – for both PAPHM and digital platform. Some BCTs were applicable to both, some were applicable to one only.

**Step 3:** the BCW and BCT extraction and APEASE assessment by authors was sense checked in a meeting with SETU research team

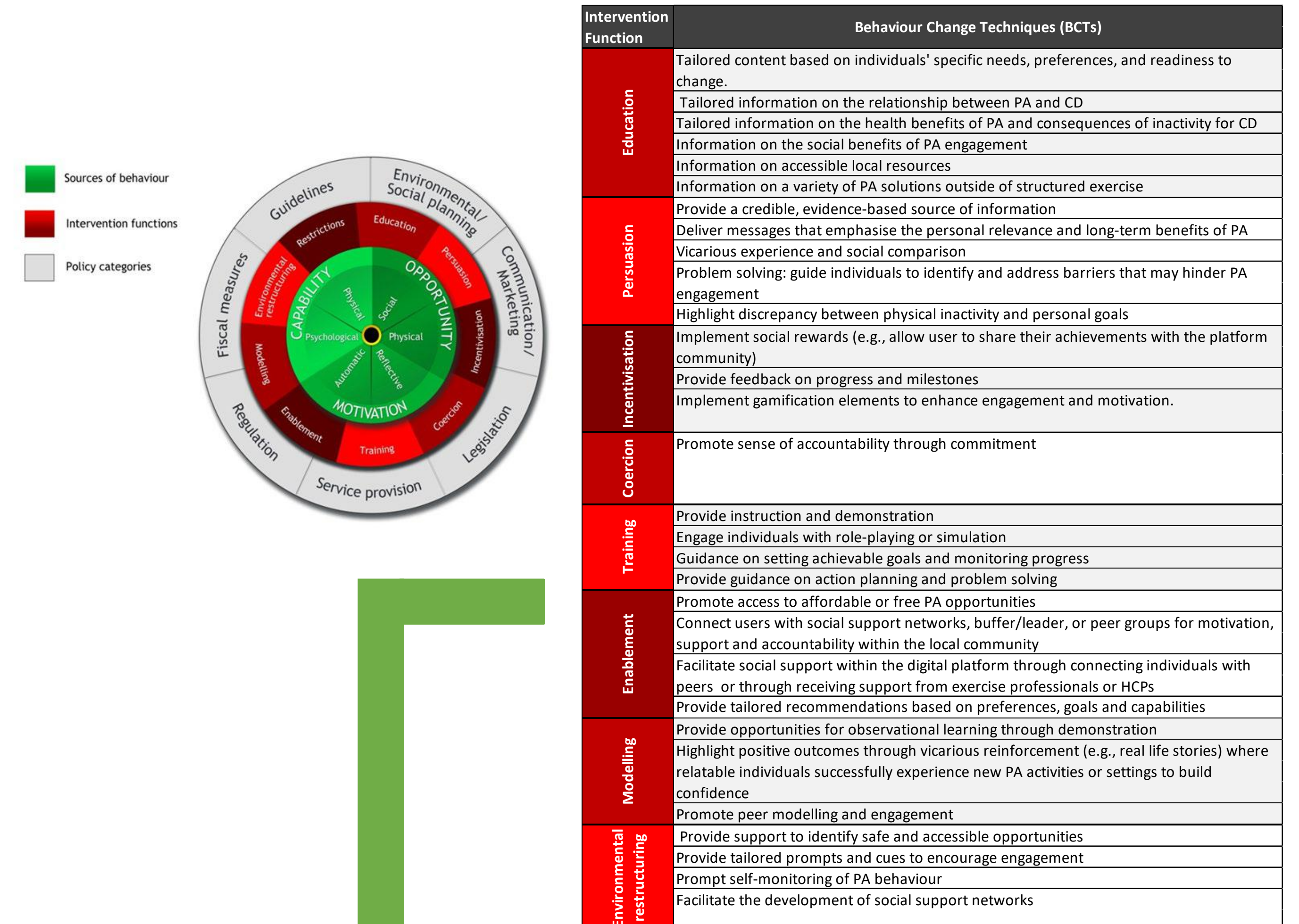
**Step 4:** BCT and Intervention functions, other than those consider out-of-scope following APEASE assessment, applicable to Digital Platform were translated into a description of platform functions ie what does this intervention look like in practice in a digital platform.

**Step 5:** Description of platform functions were reviewed, areas of overlap/duplication were identified. Final clean list of digital platform functions to enable integration of BCTs prepared.

**STAGE 3** - Product Evaluation Group (PEG) with expertise from e-health, digital services, clinical practice to oversee and manage the public procurement process for the digital platform. Output from Stage 2 used to inform development of the technical specification by the PEG.



## Behaviour Change Wheel & BCT's



Intervention Function	Digital Platform Functions required to facilitate deployment of BCTs
Required for all (essential for Education, Training & Modelling)	Capacity to collect user information (gender, age, activity levels, functional capacity, disability, risk factors/diagnoses) Capacity to interpret information collected via an algorithm to assign the user to the appropriate persona pathway to receive tailored content Capacity to serve Text and Video (with audio & captions) content tailored for the personal pathway Capacity for user to choose the preferred language for text based content to be served in
Education	Capacity to integrate with the National Facilities Database as a means to source information on facilities and supports. Capacity to have searchable text-based information on community-based programmes external to the platform and be able to signpost to registration. And update content regularly Capacity to collect user information on their barriers and motivations for PA engagement.
Persuasion	Capacity to interpret information collected on barriers/motivators via an algorithm to provide tailored text-based responses Capacity for user to set and log a behavioural (e.g physical activity) goal and outcome (e.g. I want sleep better) goal. Capacity to collect user information on progress of both behavioural and outcomes goals
Incentivisation / Coercion / Environmental Restructuring	Capacity to allow user to engage in a closed social group Capacity to award the user with a virtual social reward which can be shared within the closed social group. Capacity for user to set and log a behavioural (e.g physical activity) goal and outcome (e.g. I want sleep better) goal. Capacity to interpret information collected via an algorithm to provide text-based feedback on progress and milestones of goals.
Enablement	Capacity to receive physical activity data (self-report from user or device-based) Capacity to implement gamification elements to enhance engagement and motivation Capacity for the platform to send motivational messages to the user at set intervals Capacity to have a moderator in a closed social group Capacity for the platform to host a moderated virtual meeting

## DISCUSSION

This set of functional requirements will inform the technical specification to be issued as part of the Request for Tender and assessment of Tender Responses by the PEG.

Ultimately the capacity of the digital platform to facilitate deployment of identified BCTs will be dependent on the functional capacity of the service provider/product selected through the procurement process. However, it is essential that these requirements are outlined at the tender stage to maximise the opportunity to identify optimal providers/products.

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Physical Activity Pathways in Healthcare Steering Group



# Creation of an online GP Referral App for inhouse requests within a Children's Hospice



Sue Clinton, CNM1/EHR Clinical Lead, Lorna Collins, Project Coordinator and Fiona Woods, Head of Clinical Education

## Background

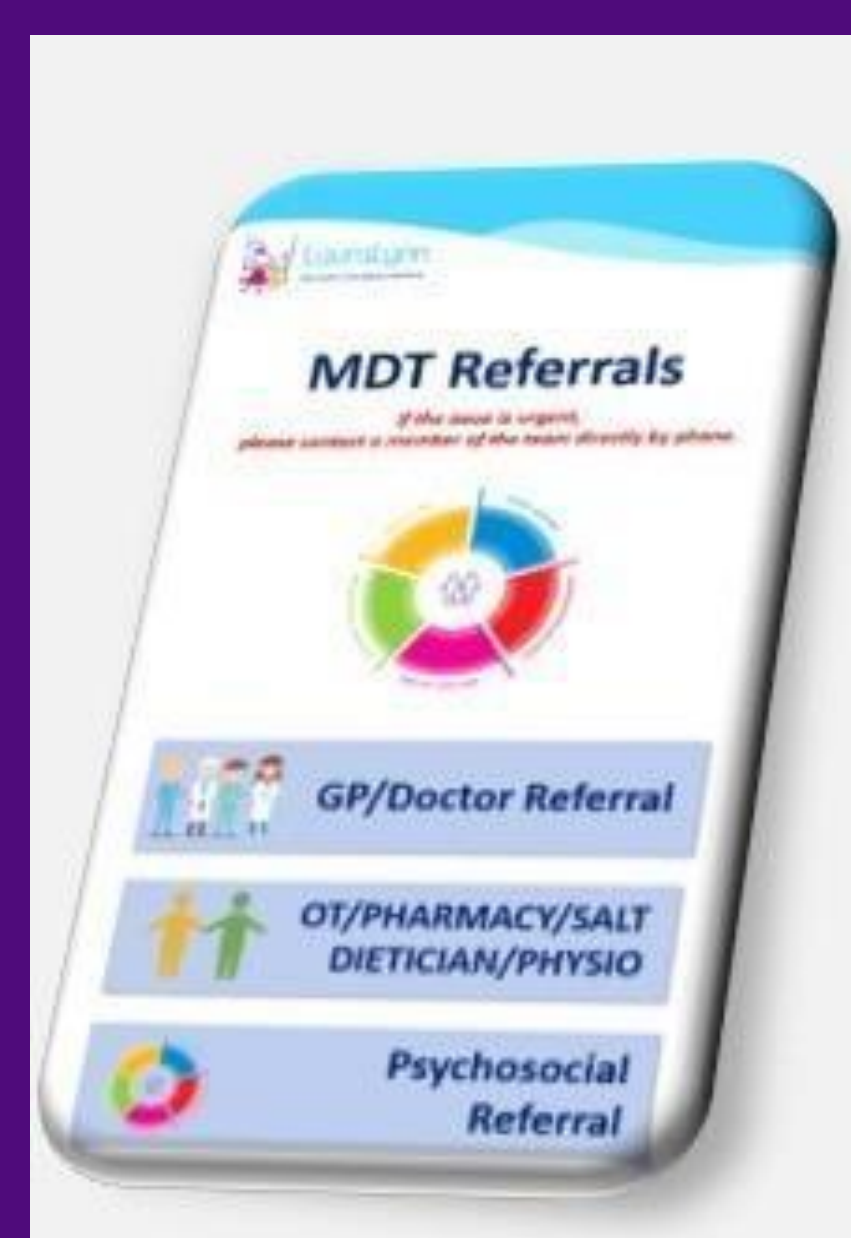
Children who attend a children's hospice often have complex needs that require frequent GP reviews and adjustments to their medication regime. A paper request book was used for actions to be completed by a GP when they were onsite. As GP cover expanded it was not practical for the GP's to share one physical book and was harder for nursing staff to submit requests or to sign off that a task had been checked as completed.

## Aim

To streamline the process by moving to an online system so multiple staff could access the information at the same time and improve efficiencies.

## Method

- An app was developed by integrating Microsoft Sharepoint lists and power apps.
- A SharePoint page was designed to support this.



## Results

- The app allows staff to input requests from anywhere onsite, remotely or on community visits.
- An alert system was built-in, so the teams are notified when follow-ups are required.
- Reports can be easily generated and filtered by child or medication.
- There is a log of staff involved in every step of a request.
- There is a reduced risk of error due to eligibility/spelling as the names are auto-populated and everything is typed.

## Conclusion

This has been a successful quality initiative as it has:

- Improved the quality and timeliness of care
- Enhanced communication and collaboration between the GP and nursing teams
- Provided data for reporting and auditing purpose.

After success with the GP app, the initiative has been expanded to streamline all internal referrals to the Multidisciplinary Team.



# Weaning onto Solid food- Online PHN led support

Development of online webinars by the Public Health Nursing Service Cavan Monaghan to support parents/guardians in introducing solid food to their infants.



## Initiative

- To develop a free, easily accessible online information session giving parents/guardians the knowledge to start their child off on their journey with solid food in a healthy way and help reduce health issues in the future.

## Rationale

- The UN Standing Committee on Nutrition in 2006 acknowledged that the first 1,000 days of life- between conception and the child's 2nd birthday are vital in shaping healthier futures. The right food and nutrition can promote lifelong health and well being, and protect against many of the chronic diseases such as heart disease, diabetes, and obesity prevalent in Ireland today. One in five Irish children are considered to be obese with levels of obesity reaching epidemic proportions in recent years.
- The Healthy Weight for Children HSE Action Plan 2021-2023 and the HSE Corporate Plan 2021-2024 commits to prioritising prevention and early intervention services with a focus on children's health, obesity and alcohol harm.

## Background

- Change in PHN developmental check from 7-9 months to 9-11 months highlighted a gap in support for parents/guardians on introducing solid food.
- In person PHN led weaning clinics began in early 2019 and were a huge success with 98% positive feedback from attendees. Initially these clinics were based in one geographical area of Cavan but aim to roll out to other areas across the counties of Cavan and Monaghan to allow accessibility.
- In early 2020, due to the Covid pandemic, these clinics were stopped due to Covid restrictions. During the Covid 19 pandemic, Digital health technology advanced and online consultations and education programmes began re-shaping the way in which health care was delivered.
- In late 2022, with Covid restrictions lifted, the PHN service Cavan Monaghan began trying to re-establish these weaning clinics. Due to limited resources & feedback from parents re: accessibility of these weaning classes it was agreed that online weaning webinars would meet the health need and would not limit accessibility due to geographical location.

## Achievements

- The RPHNs upskilled on Digital technology in order to familiarise themselves with online webinars. weaning webinars launched in July 2023. Posters given to parents by PHNs and advertised in health centres/GP offices. Feedback from those who attend is captured by a short post webinar survey of 8 questions.
- Using Digital technology to meet the health needs of the population and turning limited resources into a positive.

## WEANING ONTO SOLID FOOD

### MYTH

#### MYTH:

'My parent weaned me at 3 months and it didn't do any harm'



### TRUTH

#### TRUTH:

Over the years more research has been done and the expert advice now is that weaning should start around 6 months of age and never before 17 weeks of age.

#### MYTH:

'My baby doesn't like certain foods so I'll stop offering them'



#### TRUTH:

Research shows that repeated exposure to new foods & role modelling are key to children liking certain foods.

### ONLINE CLASSES FOR SOLID FOOD INTRODUCTION

Where: Online through [webex](#) webinar  
 When: The last Thursday of the month  
 Time: 11am-12:30pm  
 Host: Public Health Nurses from Cavan Monaghan PHN service  
 Who can attend: Parents/Guardians with infants aged from 3 months to 9 months  
 How do I register: Contact your PHN or scan the QR [code](#)



Public Health Nursing Service Cavan Monaghan April 2023

## Next steps

- Ongoing review of feedback from service users in 2024. Feedback has been overwhelmingly positive and our hope is that these webinars continue to grow in popularity.
- Engage with newly developed national steering group to try and standardise information & education given to parents/guardians on introducing solid food.

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Developed by; D. Martin RPHN, A. Martin RPHN, R. Oates RPHN, A. Grogan RPHN, S. McPhillips RPHN, H. Whelan RPHN, T. Mulleary RPHN, PDC.

# Digitising Wound Assessment, Management and Documentation within an Irish Public Health Nursing Service – a Proof of Concept Evaluation.

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This proof of concept evaluation demonstrates that “pinch point specialist areas” within community nursing such as wound care can be enhanced through a digital health solution.

## Staff feedback

“Using photos to track the progress of a wound is more objective”

“This what is used in the hospital by the vascular team”

“Using words to describe a wound is subjective and depends on the nurses experience of wound care”

“A larger device e.g., tablet would be beneficial to carry out wound care assessments with apps”

“Going forward I agree that the use of a digital app for wound care would be beneficial”

## Background

To provide cost effective, quality wound care it is imperative to understand the burden wound management places on community services. 1-1.5% of population affected by wounds <sup>1</sup>, assuming a prevalence of 0.0447%, 159,640 individuals of the Irish population require wound care <sup>2</sup> with up to 70% of community nursing time spent on wound care <sup>3</sup>. Costs have been estimated to be €629,064,198 pa or €3,941 per patient equivalent to 6% of the Irish Public Health expenditure <sup>2</sup>. Despite the introduction in Ireland of National Wound Care Guidelines in 2009 <sup>4</sup> and the updated version in 2018 <sup>5</sup>, community wound prevalence data <sup>6,7</sup> identified the following challenges in community nursing wound care provision;

- Access to specialist services and timely referral
- Variations in staff wound care education and knowledge
- Limited access to wound measuring equipment, standardised assessment, and documentation
- Inconsistent and subjective approach to wound care

## Aim and Objectives

### Aim:

- Facilitate efficient, reliable digital wound imaging, wound measurement, documentation and monitoring of wound progress on one data platform.

### Objectives:

- Procure a digital solution that supports system-wide evidence based wound care.
- Evaluate the suitability for expanding the concept of digital wound assessment for wider adoption

## Methods

A digital application was sourced and funded to test the feasibility and suitability within community nursing services within a large rural and urban geographical area on the East coast of Ireland. The digital application provided the clinician with a platform for wound assessment, measurement and treatment plans with drop down fields which were in-line with National Wound Care Guidelines <sup>4</sup>. The clinical site ran the proof of concept for 8 weeks from June 2023-August 2023. Pre and post implementation questionnaires were developed for data collection and they were administered via a digital survey platform providing anonymous and self-reported data from the participants.

## Implications for Wound Care

### Patient



Timely access to assessment, treatment, referral and specialist  
Reduced hospital admission, readmission, inappropriate treatments, care provided closer to home  
Reduced healing times and over use of antibiotics  
Improved quality of life

### System



Provision of a co-ordinated standardised consistent approach to clinical care provision across primary, secondary and tertiary care  
Reduced carbon footprint- reduction in patient and clinicians need to travel, use of paper resources, overuse of antibiotics  
Cost savings- products, medications, antibiotic use, clinical appointment, clinical setting, waitlists, transport, care services  
Timely access to quality data for service planning, budgeting, service deliver, health promotion initiatives, targeted population care

### Clinicians



Releasing time to care as reduction in time to treat  
Accurate standardised consistent assessment and documentation of wound care  
Centralised wound data repository for all clinicians providing patient wound care  
Simple, easy to learn, easy to use solution to a perennial clinical problem

## Results

- 67% of clinicians found it “easy” to **input** wound assessment information on the digital application
- 50% of clinicians “agree” that wound management digital applications play a role in **improving continuity of care**,
- 50% of users reported that using the digital application improved their **communication with other clinicians**
- 66% of users reported that the digital application assisted with their **communication with the patient** regarding their wound care
- 83% of users reported that the digital app assisted with **real time tracking and monitoring** of the wound(s) progress
- 83% of users reported that the digital app supports their **clinical assessment and documentation** of wound care
- All users reported that overall the digital application was a **valuable tool** for wound assessment and documentation, with 50% identifying that using the digital application **improved their workflow**

## Next Steps



Completion of the National Business Case  
Commence procurement and tender process



Feasibility and usability with a focus on “shared care”  
Clinician and Patient personas to include self – management, remote monitoring, integration



Accessibility and inclusivity of nursing staff and patients to digital technology and digital solutions



Adoption and integration in wound care services across all care settings  
Development of standardised patient care and treatment pathways

## Conclusion

Digital applications can improve access for the nursing workforce and the patient cohort to the right clinical expert at the right time in the right setting. Proof of concept evaluations can make the case for digital technologies within the relevant government departments

## Acknowledgments

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Nursing & Midwifery Planning & Development Unit, South East  
Nursing & Midwifery Planning & Development Unit, Dublin South, Kildare & Wicklow

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# Advanced Nurse Practitioners Actualising, Adopting, Integrating and Championing Digital Transformation- a Case Study

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Acknowledging the importance and relevance of the six core competencies of Advanced Nursing Practice, we propose a further skillset which is fundamental to the adoption of digital health in clinical practice by ANP's.



## Background

- In their digital health capability framework the Office of the Nursing and Midwifery Services Director<sup>1</sup> outlined the vital role that nurses and midwives will play in advocating, planning and implementing digital health. Similarly, the Department of Health Report of the Expert Body on Nursing and Midwifery<sup>2</sup> identify that nurses and midwives are among the crucial elements in the understanding, development and demonstration of digital technology in clinical practice.
- Advanced Nurse Practitioners can lead by using their unique strategic operational position to actualise, adopt, integrate, champion and drive digital technologies in clinical practice.
- Wynn<sup>3</sup> purports digital technologies can be utilised in several ways such as capturing digital data to improve health research, joining up provision between services and improving patients' self-management of conditions to influence health outcomes.
- Paradoxically, despite the noted advantages and recent impetus of digital technology in clinical practice, the actualising, implementation and integration remains stagnant.

## Purpose

To discuss the lived experience of two Advanced Nurse Practitioners in driving digital transformation in healthcare and map an evolving skillset.

**Introduction:** There are six core competencies of Advanced Nursing Practice in Ireland<sup>4</sup>; Professional Values and Conduct, Management and Team Competence, Clinical-Decision Making, Knowledge and Cognitive Competence, Communication and Interpersonal Competence and Leadership and Professional Scholarship. Lockwood<sup>5</sup> describes four themes in relation to ANP clinical autonomy- “stepping up”, “living it”, “bounce-back ability” and “setting in motion”, we have used these themes to guide our discussion and reflection.

**Stepping Up:** “As ANP's we identified a clinical problem through our individual and collective community wound prevalence data and audit. We recognised that employing a streamlined, standardised, consistent approach to wound assessment, documentation and care pathways using a digital solution could reduce variation in clinical practice, provide appropriate access and referral to the right service for patients at the right time. In the process of “stepping up” using our core competencies of clinical-decision making, professional values, communication, interpersonal and leadership we were able to bring our idea from inception through to project execution and evaluation. Our core competencies assisted the design, development planning, operational preparedness and implementation of the initiative”.

**Living It:** “As clinical experts in Community Wound Care we identified: there were poor referral structures in place, a lack of continuity of wound care and huge variation in wound care knowledge and practice amongst our staff cohorts. These deficiencies in clinical practice impacted our ability to provide an equitable, patient centric service to our patient cohort. As ANP's working within Public Health Nursing Services we were fortunate to have a unique position within our nursing structure, in that we could bring the challenges and potential solutions to key stakeholders at both a local and national level”.

**Bounce-back ability:** “Central to the design, development, implementation and evaluation of this project was our bounce-back ability, which was challenged at many stages during the proof of concept from structural and organisational challenges to a Global pandemic and finally an organisational wide cyber – attack. It was our bounce-back ability that drove and motivated both of us through the challenging times and it kept us focused on delivering a patient –centric solution to our problem. It is this bounce-back ability that stopped us from giving in and letting go of the project at many time points in the process. We believe that it was our passion, perseverance and the importance of patient centredness in our clinical practice that kept us determined to see the project to completion”.

**Setting in motion:** “On reflection, we are able to recognise that this proof of concept has laid a foundation for future digital health initiatives and the wider adoption of digital health within nursing and midwifery care across health care settings in Ireland. We acknowledge both the importance and relevance of the six core competencies of Advanced Nursing Practice in this project but we propose that based on our experience and learning that fundamental to the adoption of digital health in clinical practice ANP's it is imperative that they develop a further skillset which is illustrated above.

### Conclusions

There is limited reference to the academic preparation required within the current ANP education programme<sup>4</sup>. To prepare candidates to actualise, adopt, integrate, champion and drive digital health in clinical practice we propose the integration of the identified digital health skillset as competencies in post-graduate advanced nurse practice education curriculum.

### Acknowledgments

### References

# Teamwork Involve Preparation = Success

## Implementation of Digital INEWS/VSA

Wendy Fitzpatrick, Practice Development Co-ordinator, Midland Regional Hospital Tullamore

### Introduction

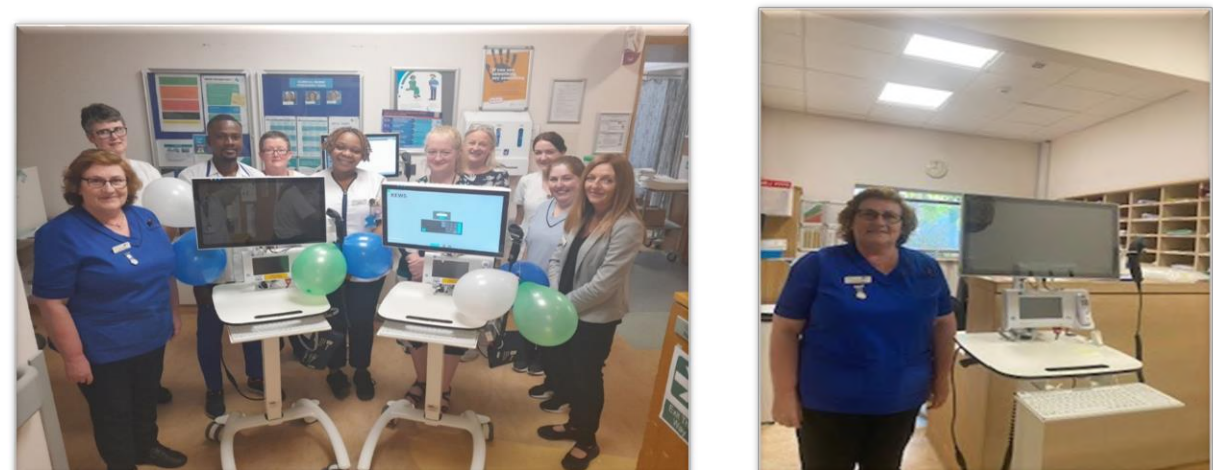
In August 2023 Digital INEWS/Vital Signs Automation (VSA) was successfully implemented in a medical ward within Midland Regional Hospital Tullamore. Using Digital INEWS/VSA improves patient safety as it significantly reduces the high error rates inherent in recording and calculating the INEWS score rather than using a paper-based system. In addition, it aids early identification of acute patient deterioration by alerting nursing and medical staff resulting in quicker response rates. This poster outlines the elements of the PDSA Cycle involved in the project.

### Benefits of Introducing Digital INEWS/VSA

- User friendly
- Captures vital signs electronically
- Reduced errors – recording & calculating INEWS score
- Reminders – more timely observations
- Escalation & response flagged for staff
- Easy access to patient data
- Aids ward management
- Releases time to care

### Aim of the PDSA Quality Improvement Initiative

Successfully implement Digital INEWS (VSA) in a medical ward



Launch Day

#### References:

Digital Irish National Early Warning System (INEWS) (no date). <https://www.ehealthireland.ie/ehealth-functions/acute-delivery/digital-irish-national-early-warning-system-inews>  
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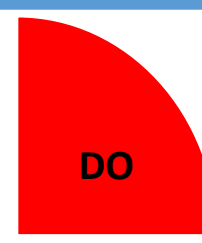
#### Acknowledgments and Special Thanks:

Niamh O'Leary, National VSA Project Lead. Ronnie McDermott, National Acute Medical Device Advisor. Colm Connolly & Marat Ambalo, Synchrophi. Gareth Dempsey, MDI Medical. MRHT - Medical 1 Staff. John Adlington, Project Lead. VSA Project Team. DPIP committee. Practice Development Team. Senior Hospital Management. QPS.



### PLAN

- Identify key stakeholders MRHT – Clinical Engineering, Nursing and Medical Staff, PD Dept, IT, Maintenance, DPIP, Hospital Management, QPS
- Facilitate hospital site visit to observe and discuss VSA
- Identify Local Project Team with necessary expertise
- Facilitate Project Team meetings with task delegation and agreed timeframes
- Liaise with National Project Team and vendors (hardware & software)
- Ward staff involvement/engagement
- Identification of training needs and plan delivery of training
- Development of local PPPG
- Local governance – DPIP committee
- Develop on-going system to identify locum & agency users



### Do - Implementation

- Agree commencement date
- Pre INEWS Audit
- Pre-launch training – Synchrophi & PD Team
- Train 'SuperUsers'
- Offer Online training dates
- Set 'Go Live' date
- Continuous PD Team support to the Medical ward for further training/re-enforcement
- Develop 'quick reference guide'
- Evaluate staff view using Kirkpatrick Model



The Kirkpatrick Model



### Next Steps

#### Study

- Analyse audit data pre and post implementation of VSA
- Evaluate staff view using Kirkpatrick Model



The Kirkpatrick Model

- Liaise with IT – WIFI – upgrade WIFI access points

#### Act

- Introduce Training for Medical staff at Induction Programme
- Liaise with Medical Manpower and DPIP committee
- Further roll-out of VSA to additional ward

### Positive Staff Feedback

- 'automatically calculates the early warning score, chance of error less'
- 'Quick and easy to use'
- 'Adds the score for you accurately'
- 'Accessibility for viewing patients obs at central station for handover'
- 'would like to see more functions added'
- 'valuable time back to spend with patients'
- 'much neater than handwriting'
- 'beneficial to the clinical area'
- 'Great visual for patients'
- 'Time efficient and will improve safety'
- 'everyone has easy access and can't go missing'