Enabling Clinical Design and Innovation

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Irish Healthcare - Headline Challenges

Increasing, ageing, diverse population; emerging new marginalised groups

Population profiles across all ages - insight to inform planning of regionalised services

Service access-demand; wait times; medicines shortages; rising costs constraining ability to fund

Behavioural factors; socio-economic deprivation, inequity, self management

Bridging workforce gap – international demand; new evolving roles – shift left

Increasing non-communicable [chronic] disease burden and antimicrobial resistance

Clinical data/document standards; clinical systems and solutions

Patient empowerment - desire for increased ownership

Innovative approaches - precision medicine [genetics, environment, lifestyles]

Using digitisation, data, AI to improve outcomes

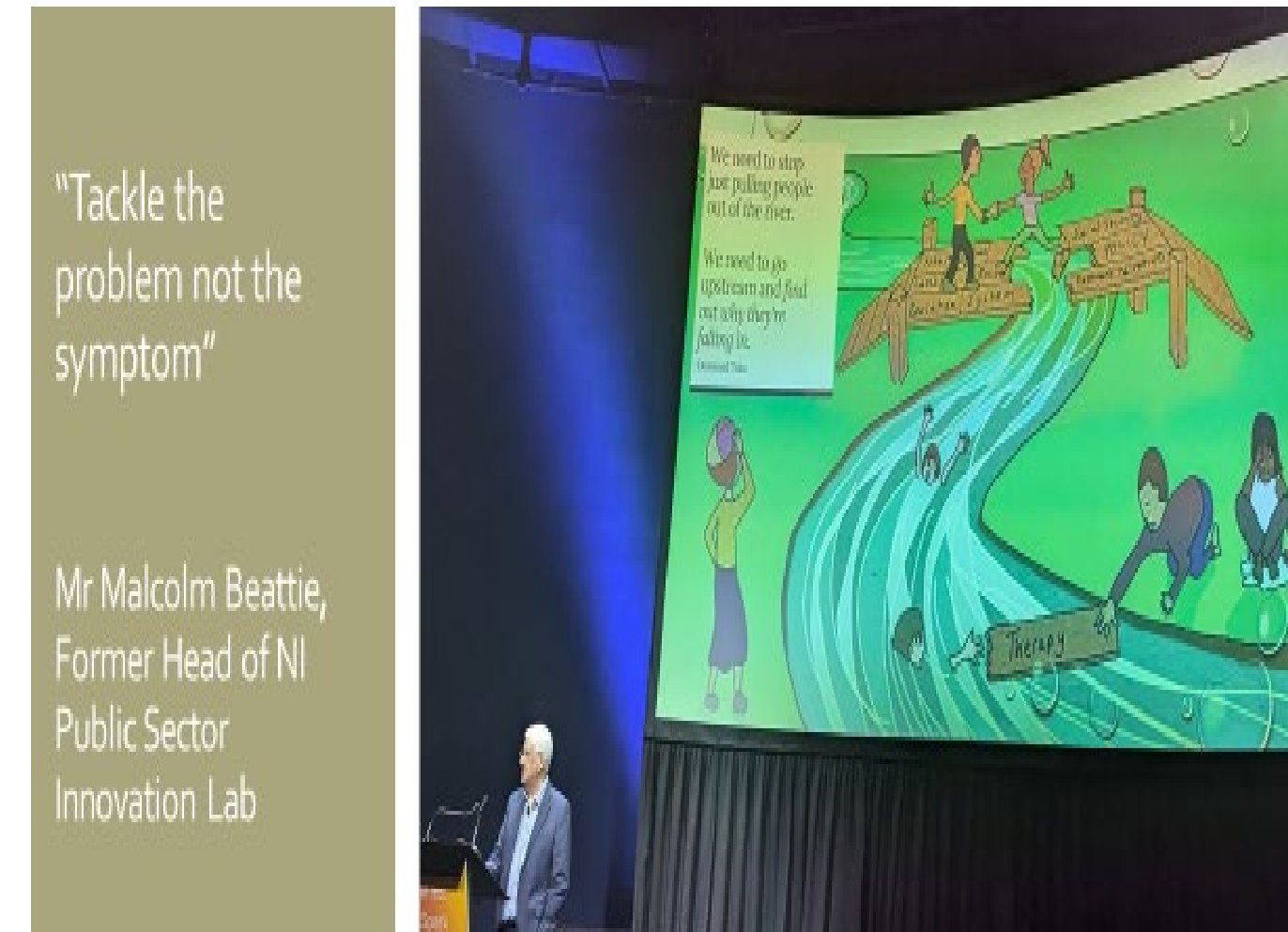# Clinical Design – proactive versus reactive

Where is Healthcare System now, from design perspective?

Risk getting stuck in cycle of dealing with emergencies

Downstream (reactive) mode rather than going Upstream to find root cause and fix what caused problems to occur (system thinking)

WHAT, WHY, WHEN, WHERE, HOW

Articulate problems in new way - create good health experiences

"Tackle the problem not the symptom"

Mr Malcolm Beattie, Former Head of NI Public Sector Innovation Lab

Clinical Design and Innovation
2023 - A year in review

Designed clinical services

- Diabetes in pregnancy
- Cardiac rehabilitation
- People with mental disorder and substance use disorder

available at
hse.ie/eng/about/who/cspd/ncps/

Improved access to care

A new child and adolescent eating disorder service was opened for Cork and Kerry.

"Work-Able Solutions" initiative began helping people with chronic pain stay employed or return to work.

Ensured the voice of service users is at the centre of everything we do

An older person's reference group was established to share what matters most to them.

Patient co-design of clinical services.

Supported people to live well in their communities

In 2023:

GPs managed ~ 550,000 patients with chronic diseases

Community Specialist Teams saw ~ 100,000 older people

Need to meet evolving challenges

To move to holistic system, design-driven and participatory approach, with focus on jointly optimising

- system performance (productivity, efficiency, effectiveness, patient safety)

AND

- wellbeing (health, safety, experience)

Complex Challenges require an **Evidence-Based, Participatory, Design-led Approach**

- *incorporate research and data insights, based on best available evidence (Ulrich et al., 2008)**
- *aligns with shift towards patient-centred care models (Robert, 2015)**
- *ensures practical, effective, accessible and sustainable models of care, in real-world settings (Bate & Robert, 2006)**

*Bate, P., & Robert, G. (2006). Experience-based design: from redesigning the system around the patient to co-designing services with the patient. Quality and Safety in Health Care, 15(5), 307-310.
 Robert, G. (2015). Participatory design in healthcare: A literature review. Health Expectations, 18(5), 537-550.
 Ulrich, R., Zimring, C., Zhu, X., DuBose, J., Seo, H. B., Choi, Y. S., Quan, X., & Joseph, A. (2008). A review of the research literature on evidence-based healthcare design. HERD: Health

Ensure Clinical Design Effectiveness

Situational analysis

Methodology
- Document review
- Interviews
- Survey
- Literature review
- Co-design workshop

Outputs identified methodologies/training curriculum to support Clinical Design Teams, based on expressed needs

- SI and QI framework for planning and executing work
- Consistent approach to design thinking planning and implementation support
- Build MDT clinical design teams for the future, with right capacity and capability

We asked:

To what extent are data sources used as inputs into design process?
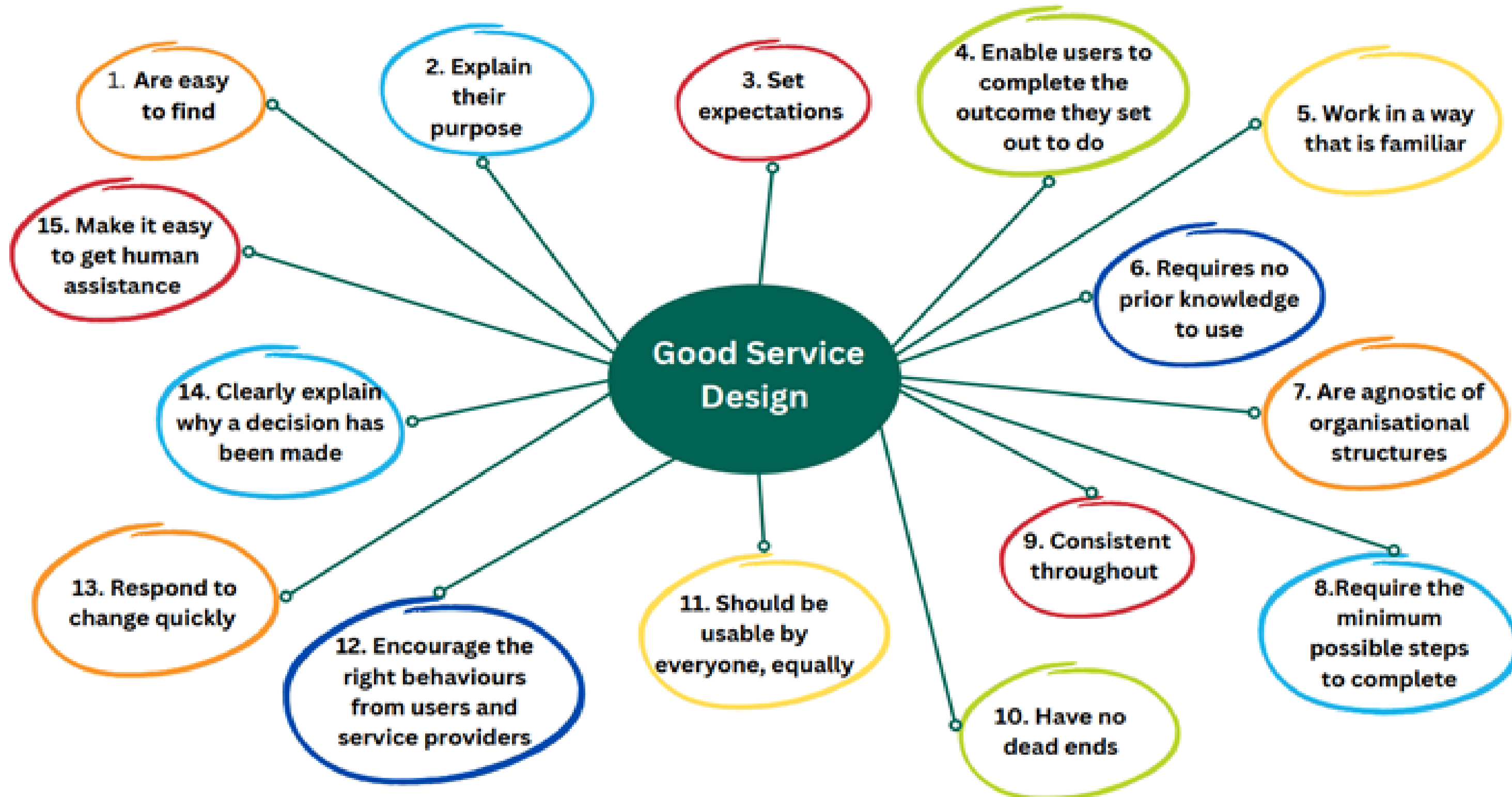
- Frontline Staff Engagement

- Patient/Public Engagement

- Clinical/Healthcare Audits

- Patient Safety Data

- Patient Outcome Data

- Clinical Effectiveness Data

- System Efficiency Data

- Clinical Literature Search

- Healthcare Design Literature Search

- Population Health Data
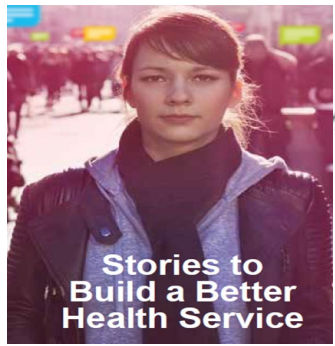
- National Agreed Policies/ Strategies

To what extent are design concepts-frameworks-methodologies used?

- Design Thinking / Double Diamond

- Co-Design / Participatory Design

- Sociotechnical Systems

- The CUBE

- User-Centred Design

- Lean Six Sigma

- As-Is & To-Be Process Modelling

Principles of Good Service Design (Downe, 2020)*

1. Are easy to find
2. Explain their purpose
3. Set expectations
4. Enable users to complete the outcome they set out to do
5. Work in a way that is familiar
6. Requires no prior knowledge to use
7. Are agnostic of organisational structures
8. Require the minimum possible steps to complete
9. Consistent throughout
10. Have no dead ends
11. Should be usable by everyone, equally
12. Encourage the right behaviours from users and service providers
13. Respond to change quickly
14. Clearly explain why a decision has been made
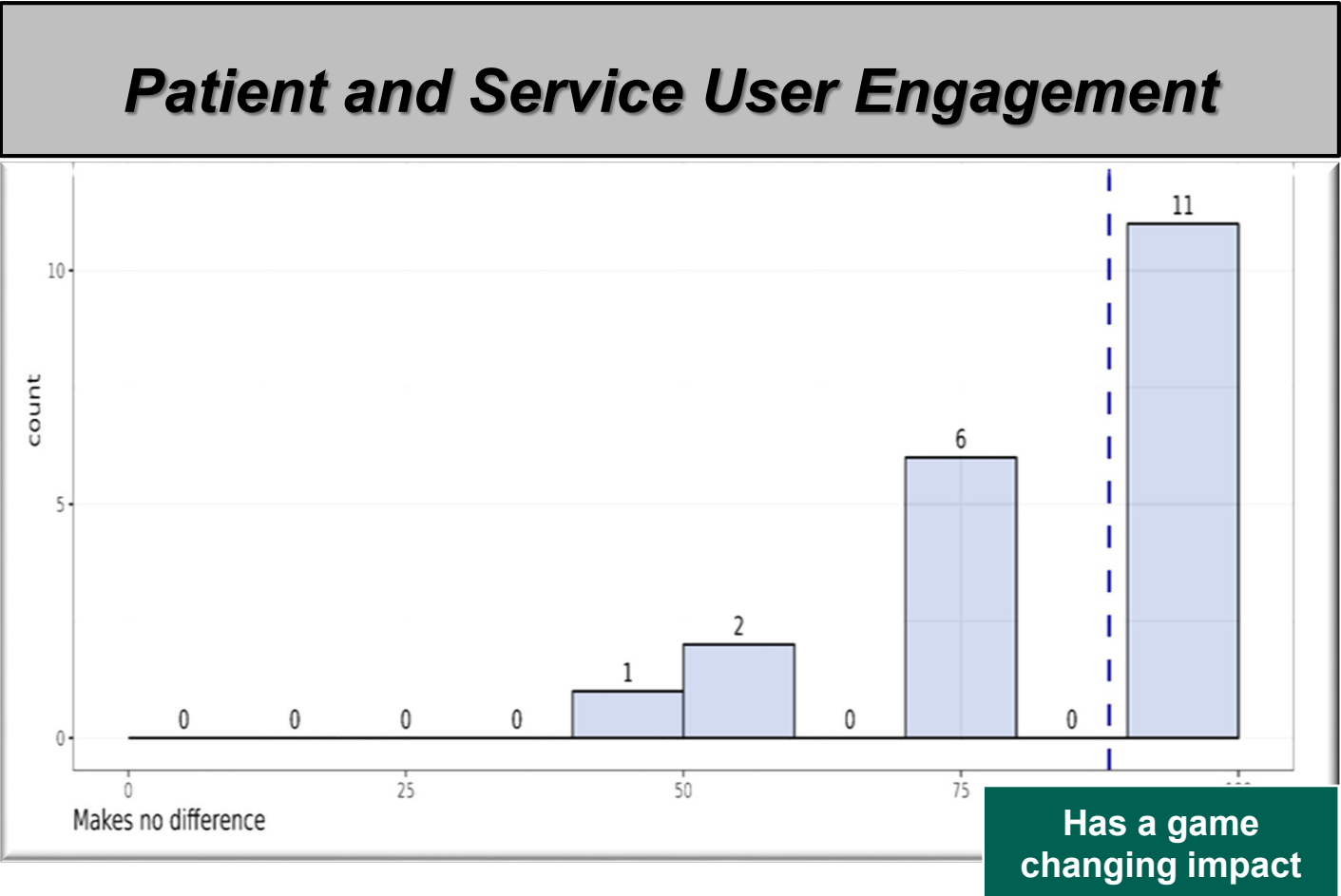15. Make it easy to get human assistance

Good Service Design

Patient Co-Participation

Fundamental cornerstone of healthcare

While clinical effectiveness and safety important, *experience of care* matters ***just as much***

Clinical Design and Innovation – Future Model

Identify, design innovative solutions for optimum care delivery

Design and pilot value-conscious models of care that improve outcomes
Standardise quality care informed by patient-centric data
Identify and deliver value - improve efficiency, effectiveness, sustainable patient care

→ Value-based
→ Evidence-informed
→ Data-driven
→ Person-centred; population-based
→ Find, design, test and support implementation
→ Demonstrate integration across service domains

Our journey ahead

Path Ahead

Support Health Region operational entities via national clinical designs

Patient and Service User Partnership Council
Better for patients, better for services

Directory of 'pipeline innovative designs' – scan potential for testing, evaluating and spread

Innovate with empathy - take on pressing challenges, focus on unmet need via population based planning

Digital and data enablement; health information dashboards
HSPA Outcomes Framework

Reflections: incremental steps in right direction

Thank you