Telehealth in Action – way forward in NI

Soo Hun, CCHSC

Carers Week, ARK Ageing

9th June 2015

Telemonitoring NI

Belfast Health and Social Care Trust

Western Health and Social Care Trust

Northern Health and Social Care Trust

Southern Health and Social Care Trust

South Eastern Health and Social Care Trust

TF3 consortium

- **6 year contract awarded March 2011**

- **Procurement, service definition and implementation process led by ECCH – a part of Public Health Agency**

- **Comprises of Telehealth & Telecare**

- **Capability: 3,500 patients per annum**

- **12 condition categories**

- **2 - 52 week monitoring periods**

- **>2.8 million monitored days**

- **£18m investment**

What is telemonitoring?

Telehealth

- Remotely monitor patients who are not at the same location as the health care provider

- Monitoring devices at home, the results of these devices sent via telephone to the health care provider

- Convenient way for patients to avoid travel and to perform some of the more basic work of healthcare for themselves

Telemonitoring NI

Help Desk

Family, Friends & Carers

Self-care

GP/Clinician

Daily Monitoring

Community Nurse

Where are we now?

- More than 5000+ users on Telehealth, > 2000 users at any one time

- More than 2,500+ users on Telecare at any one time

- QUB Evaluation underway
  - Quantitative and Qualitative studies

User satisfaction survey (circa 100 responses)

% agree or strongly agree…

95% Telemonitoring assisted in managing their health
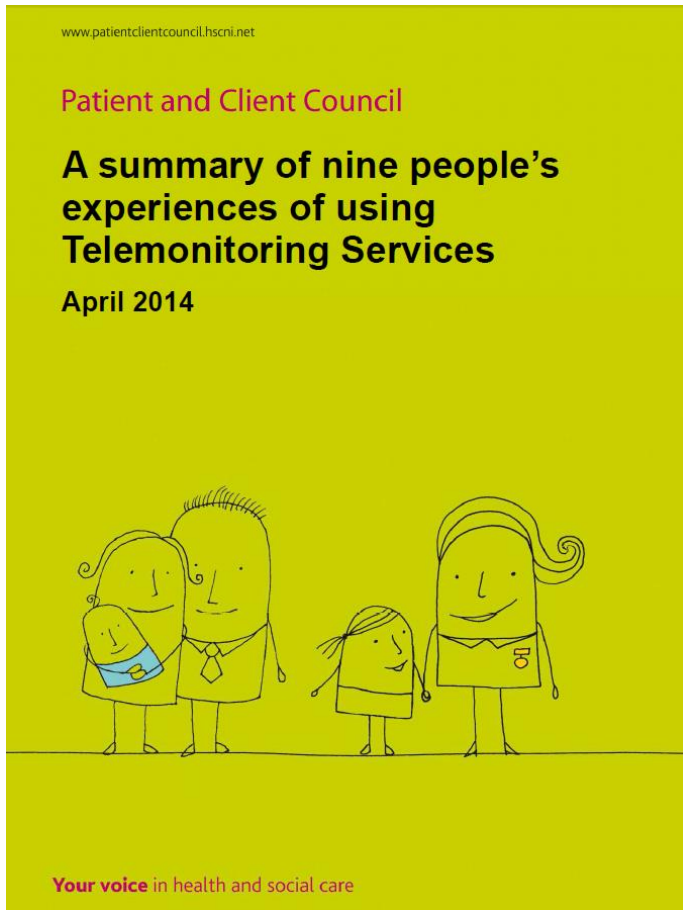
91% Has enabled me to better manage my own condition and become more involved in my health care

86% Monitoring of own condition has reduced the number of nurse/community team/ health professional visits

79% Has prevented the need to attend ED and / or GP out of Hours services

79% Has prevented my admission to hospital

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Impact on service users/carers

www.patientclientcouncil.hscni.net

Patient and Client Council

A summary of nine people's experiences of using Telemonitoring Services

April 2014

Your voice in health and social care

- 9 patients interviewed
- Triage and Track & Trend
- COPD, CHF, Stroke, Weight
- 45-55 to 65-75
- 3 females, 6 males

http://www.patientclientcouncil.hscni.net/uploads/research/Telemonitoring030414pm.pdf

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Benefits of the telemonitoring service that patients reported

1 Less travel / visits to clinics or the hospital for routine appointments

2 Patients feeling that healthcare professionals would be kept well informed about their condition over the monitoring period

3 Reassurance, feeling of being well supported

4 Better channels of communication with healthcare professionals

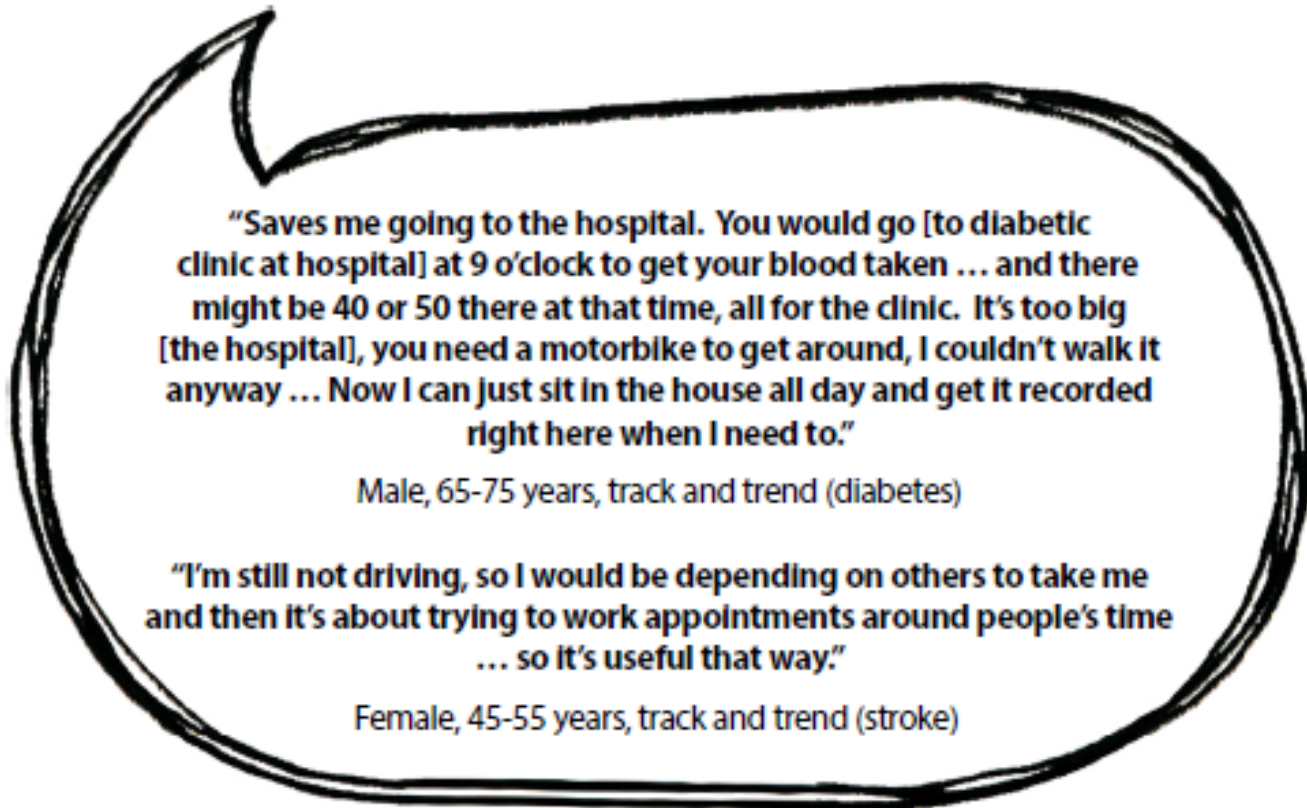**5** Greater understanding of their condition and how it affects them

6 Improved self-management of their condition

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► **Less need to attend or travel to medical appointments**

Three people said that using telemonitoring to carry out their own basic health checks at home meant they did not have to travel to the health centre or hospital as often, which was beneficial to both the patient and their carers or family members who had to drive them to their appointments.

"Saves me going to the hospital. You would go [to diabetic clinic at hospital] at 9 o'clock to get your blood taken … and there might be 40 or 50 there at that time, all for the clinic. It's too big [the hospital], you need a motorbike to get around, I couldn't walk it anyway … Now I can just sit in the house all day and get it recorded right here when I need to."

Male, 65-75 years, track and trend (diabetes)

"I'm still not driving, so I would be depending on others to take me and then it's about trying to work appointments around people's time … so it's useful that way."

Female, 45-55 years, track and trend (stroke)

"It helps me live with my condition better now. I hoped it would improve my care and it has by giving me more security because now I can just check my levels. I still use steroids and inhalers but knowing my levels gives me real peace of mind."

Female, 65-75 years, triage (COPD)
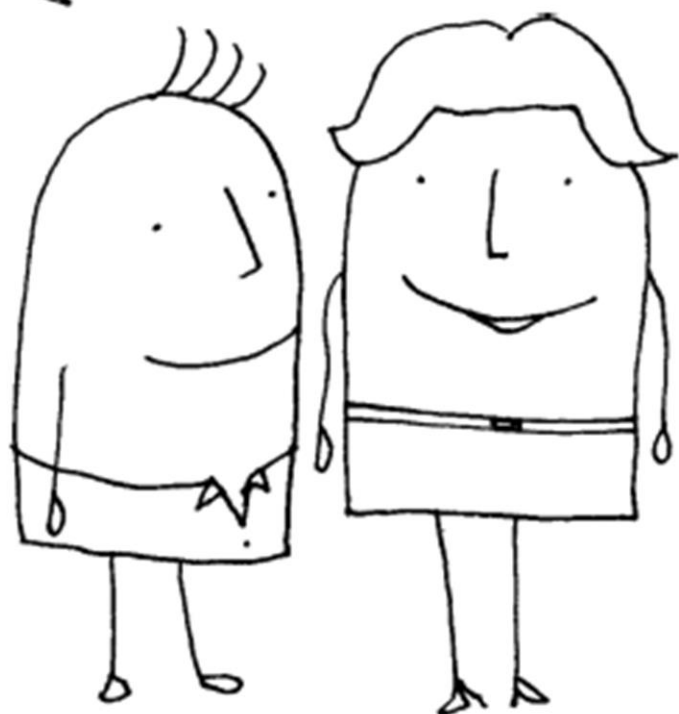
"I feel that by using the device my health has improved."

Female, 45-55 years, track and trend (weight management)

"If anything the telemonitoring helps my daily routine and creates a bit of self-discipline. I now want to know what my blood is and what my weight is. I set myself targets, for example of losing 5kg and now that I have done that I want to lose another 5kg."

Male, 65-75 years, track and trend (diabetes)

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A Patient's Story

Using telemonitoring to help manage a chronic illness...

"It has really helped me understand my own condition. I was given a sheet of paper to record what the results were ... so that if there is any trouble with the information being sent they can ring up and all the information has been recorded on paper. Also, it's very good when going to see a new doctor to show all your results for the last load of months ... All the family think it is very useful and always ask about my readings. It's reassuring to them."

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Marie and Michael's story

Before telemonitoring

"Michael's blood sugar levels were really erratic and we couldn't keep track or maintain a stable level, which meant he was **in and out of hospital** on a regular basis.

After telemonitoring

"Everything just fell into place once telemonitoring was fitted, it's so easy to use, Michael takes his own bloods everyday and I send the readings over once a week. It only takes five minutes, I just plug it into the phone line and the readings are automatically sent.

Marie and Michael's story

Advice to other patients and carers

"We would definitely recommend telemonitoring

.....it's really helped us take control and manage his condition.

*.....especially as I am the **primary carer** for Michael, sometimes you can feel as though you're the only one doing it, but with the support of the service and carer groups I have been able to better care for Michael and he is much happier, which feels great."*

> **❝** Telemonitoring has helped take the stress out of all of us. **❞**

Telemonitoring NI - Sarah's story

Background

Mother of eight Sarah Spence from Newtownards is 79 this year. She suffers from diabetes and requires constant monitoring. Sarah has had telemonitoring in her home for the past two years. Sarah's main carer is one of her seven daughters, Sandra. She takes her mum's blood sugar reading four times a day. She also takes her temperature, her weight, her SPO2 and measures her ankles for sign of fluid retention every morning. These readings are then transmitted back to base and circulated to her diabetes nurse Ruth and other health professionals who might need access to them. Sandra and her sister Agnes also keep their own records so that all five sisters who share a rota for night time care can see the readings. Sandra says...

How has telemonitoring helped?

"Telemonitoring is absolutely brilliant. Two years ago we were in the dark about dealing with Mum's condition. It was horrendous. We were constantly up in the Ulster, in and out of hospital.

Then Ruth, Mum's Diabetic nurse, told us we would benefit from telemonitoring. We decided to try it and the engineer came out, was very helpful, set it all up and showed us how to use it. I find it easy enough to use and my sisters are happy also. If any of the readings are not normal, they will contact us straight away and advise us what to do, or who to call.

Telemonitoring has helped take the stress out of all of us. We can keep a close eye on Mum's blood pressure, pulse and oxygen levels and if her weight goes up we know she is gathering fluid and we would then contact the heart failure nurse and she or the respiratory nurse would call out and keep a check on her.
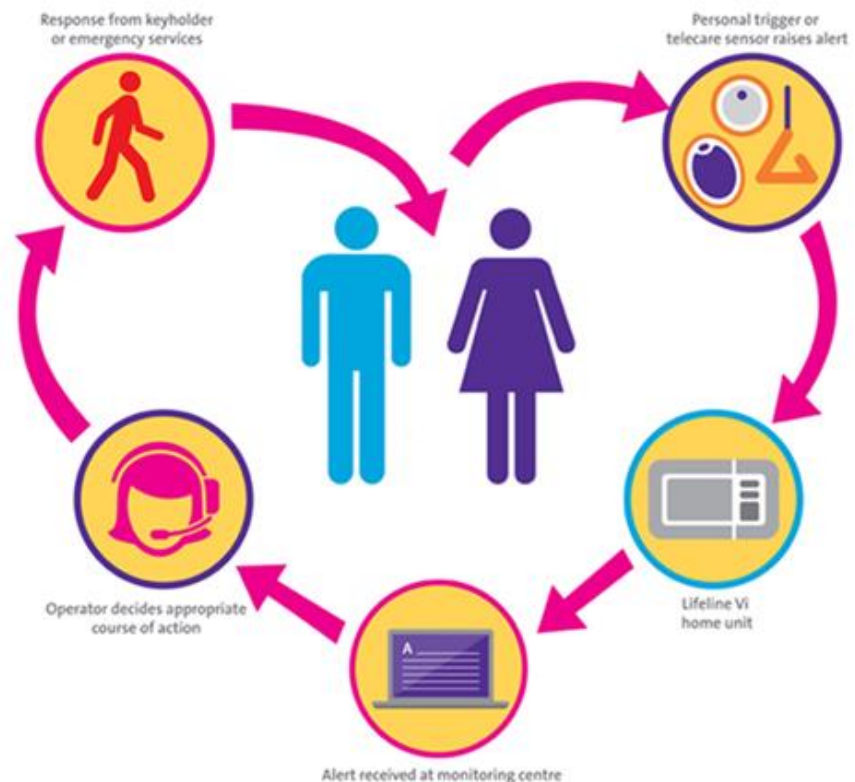
Mum is also on the Virtual Ward and the best thing of all is that I now know exactly who to contact for help. The last six months have been the best for years in terms of Mum's health and stability. Telemonitoring has been a godsend.

Mixed professional views

- Professionals and management teams - Telehealth has :
  - changed clinical practice
  - deliver more efficient and effective services
  - enabled greater patient self-care
  - allowed professionals to orientate more of their time towards those who need it most
- At point of discharge/clinical review, 83% of cases are reported to have fully/partially achieved the planned clinical outcome
- However other professionals and management teams **dispute that telemonitoring is adding significant value**

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Telecare

- Personal and/or environmental sensors and alarms around the home
  - Smoke and flood detectors
  - Fall detectors
  - Bed sensors
  - Exit alarms
  - PIR – Passive Infrared sensors used to detect movement (or non-movement)
- 24x7x365 monitoring by Contact centre

Response from keyholder or emergency services

Personal trigger or telecare sensor raises alert

Operator decides appropriate course of action

Lifeline Vi home unit

Alert received at monitoring centre

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Use case scenarios

Client A

- Frail elderly, risk of falling, especially on stairs
- Telecare installed – fall detector, safety pendant, PIR sensors by staircase
- Sensor detects if client approaches staircase
- Client can press pendant if unsteady or falls detector activate if patient falls
- Alarm sent to contact centre who rings client or their carer or emergency services if necessary

Use case scenario

Client B

- Early dementia, waking up at night, risks of leaving home
- Telecare installed
  - Bed sensor, Exit/door alarm
  - PIR sensor to detect movement
  - Smoke and flood detectors
- Sensor detects if client wakes up and starts to go outside their house, or if forgets to switch off cooker or taps
- Notification sent to contact centre who ring client or their carer or emergency services if necessary

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Telecare can:

Reduce risks in the home	Respond rapidly and appropriately when needed	Assist in the management of specific conditions and enabling carers to sleep without worry
Delay the entry of people with some conditions to residential or nursing care	Enable more people to be discharged in a timely and safe way from hospital care	Cut some unnecessary costs from the health and social care system

Looking to the future

- Post 2017
- 2011-2015
  - changing practice, enabling innovation, embedding change and scaling
- Policy directions
- New technologies
- Engagement with patients/citizens

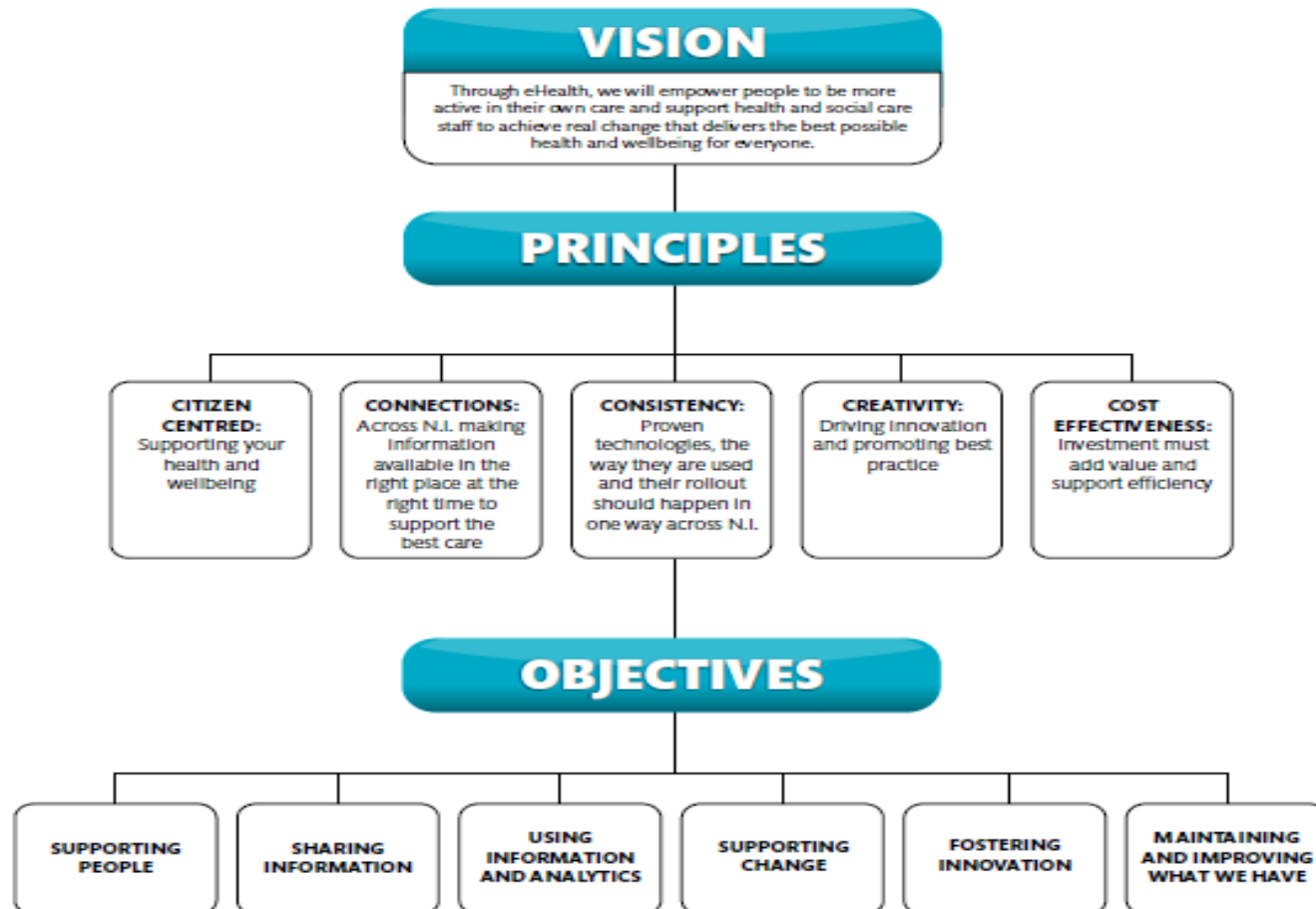HSC Health and Social Care Board

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Policy directions

NI - Model of Integrated Health & Social Care
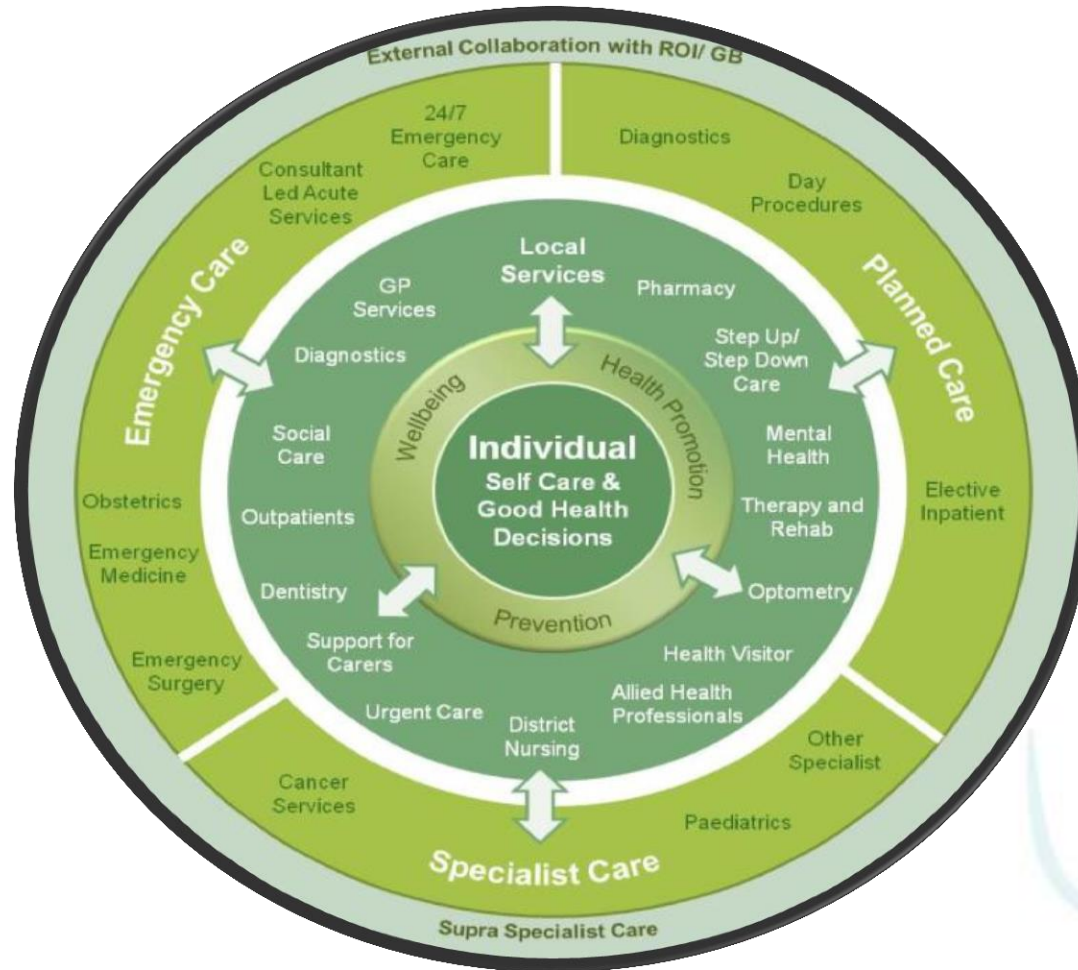
eHealth and Care Strategy

e -Health & Care to Support Citizens

Supporting Healthy Citizens

- Consumer Health Informatics
- Using technology and innovation to help address inequalities
- Expert health & wellbeing information online /portal
- Community Development
- Using social media to target message/ information
- Apps for health and wellbeing

Supporting Interaction

- Expert information – condition specific & pharmacy
- Discussion groups/ peer support through social media
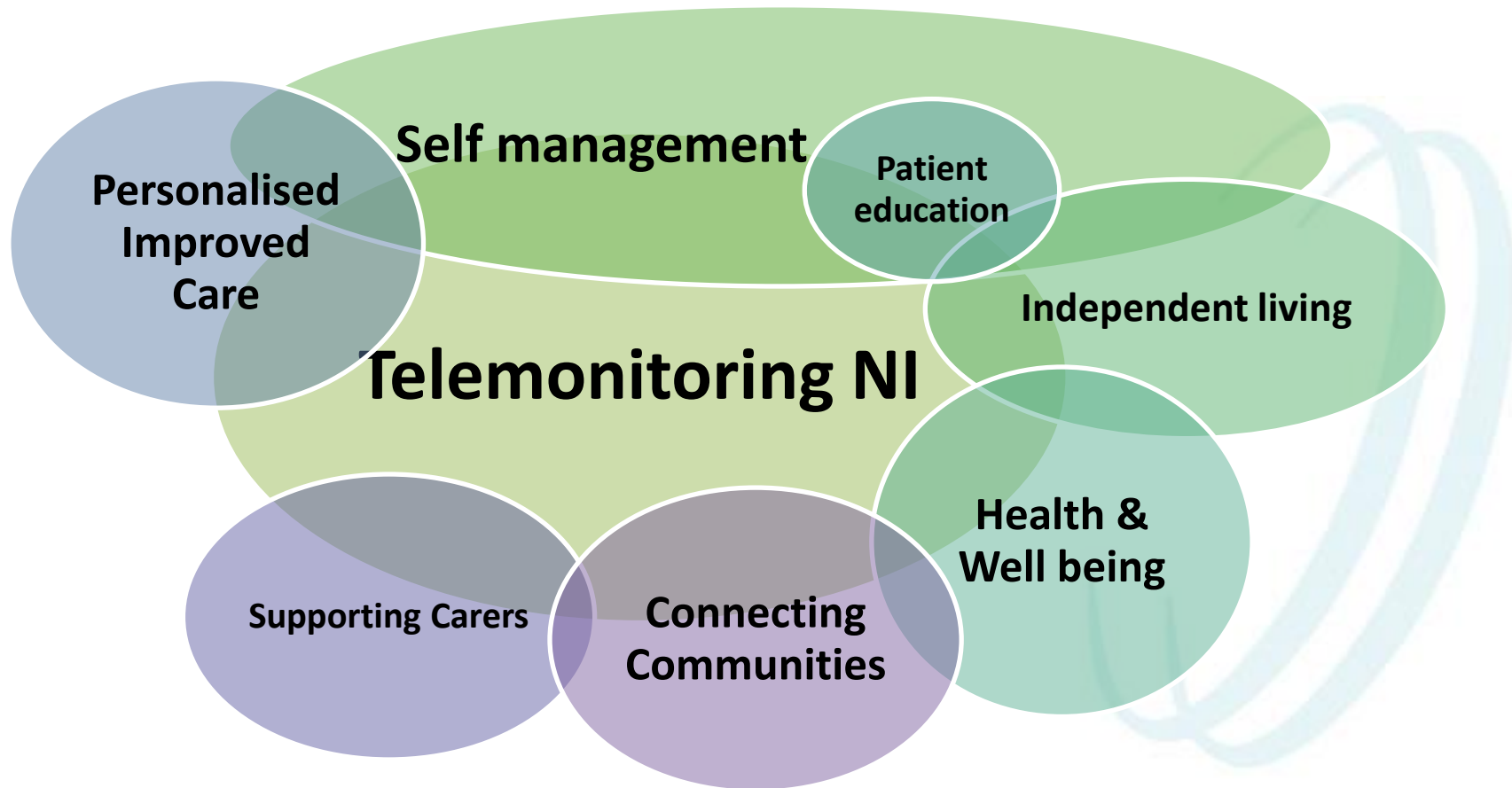- Virtual /e consultations
- e- booking

Supporting Independence

- Remote monitoring
- Social and psychological support
- Carers network – virtual communities
- Access to health and care record
- Self management and care tools and apps
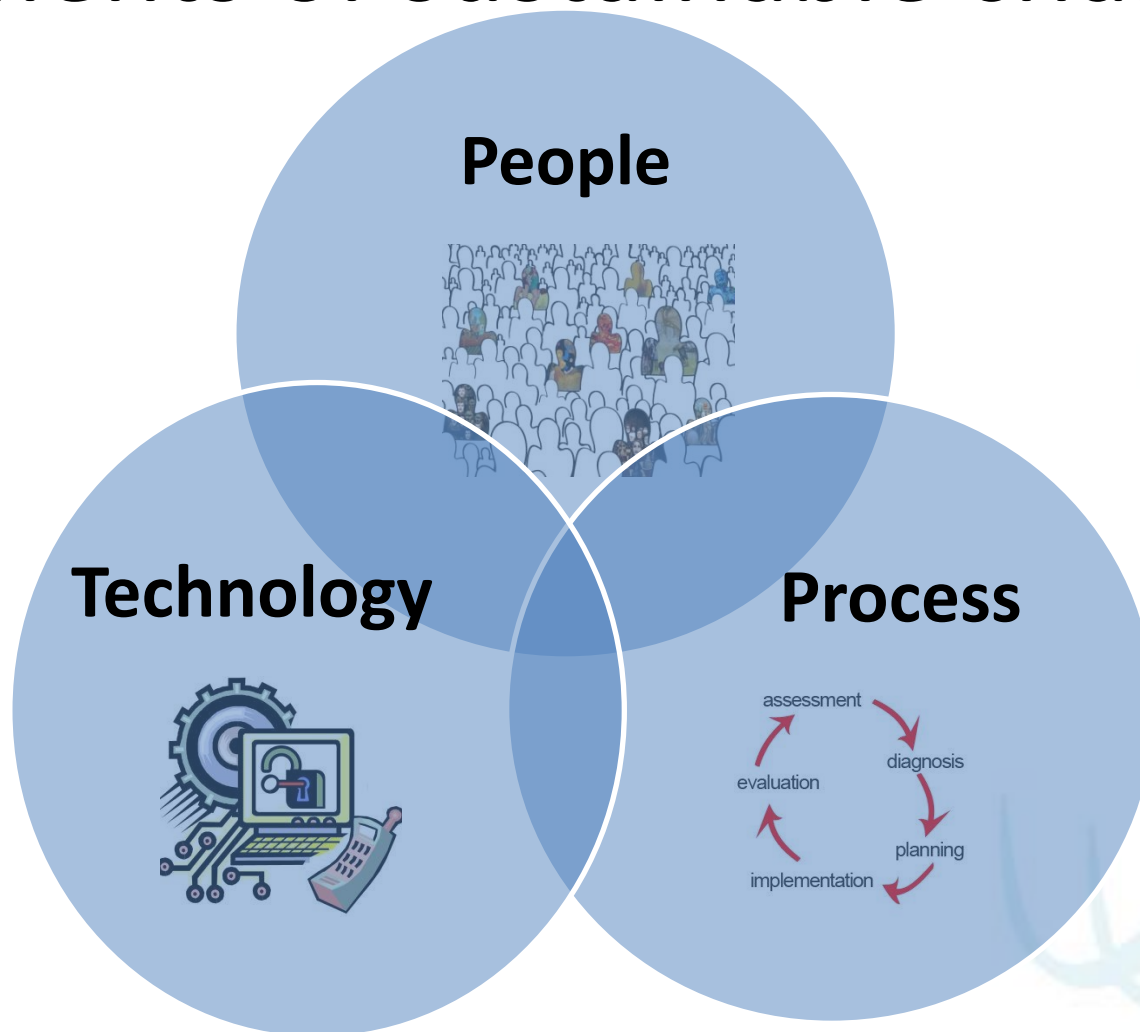
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eHealth supporting wide agenda of reform

- Promoting Self Management
- Supporting Carers
- Personalised Care Planning
- Shared Decision Making
- More integrated care delivery
- Connecting Communities

Embedding and Scaling

Elements of sustainable change

People

Technology

Process

assessment

diagnosis

evaluation

planning

implementation

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What can we do better in telehealth

- Incorporate other forms of monitoring – vital signs, symptoms management etc..
- "Light touch monitoring" use of mhealth, wearables
- Complementary technologies – video conferencing
- Integrate to other aspects of care

Virtual Clinics
Videoconferencing supported by biometrics (eg Australia)

Wearables Integration
Using consumer wearable tech to support health/care (eg Europe/US)

Apps & Health Tracking
Apps for Health
Supporting health & care via smart technology

Service Delivery Management
Information and scheduling for professionals (eg Nordics)

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What can we do better in telecare

- Responder Services
- Better use of data to prevent/manage risks
- Assessment - Activities of daily living (ADL)
- Improved co-ordination/building networks of care in collaboration with community and voluntary sector

Social Inclusion

Connecting people with social circles/activities (eg UK)

Service Delivery Extension

Using telemonitoring centre as integrated service hub (eg Spain)

Support Circles

Engaging friends/family to provide support (eg UK)

Supported Discharge

Hospital discharge support – also Hospital@Home (eg South America)

Continuous growth and improvement

Qualitative issues

Strong bet for quality with advances in telecare issues

- Opting for advanced telecare
- Pilot projects to extend the service to other collectives
- New protocols and improvement to manage risk situations
- New management platform for coordinating with local social services

Complementary Services

11 mobile units

3.270 sensors (gas, smoke/fire and movement)


Solutions for special needs

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Service Provision Model

The **Telecare Local Service** is:

- A personalised care system based in the new communication technologies.

- Not only a service for emergencies.

- A Service that guarantees safety, reassurance and accompaniment for the users and their families.

- A preventive service.

- A service that allows a 24 hours-365 days/year communication.

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Challenges
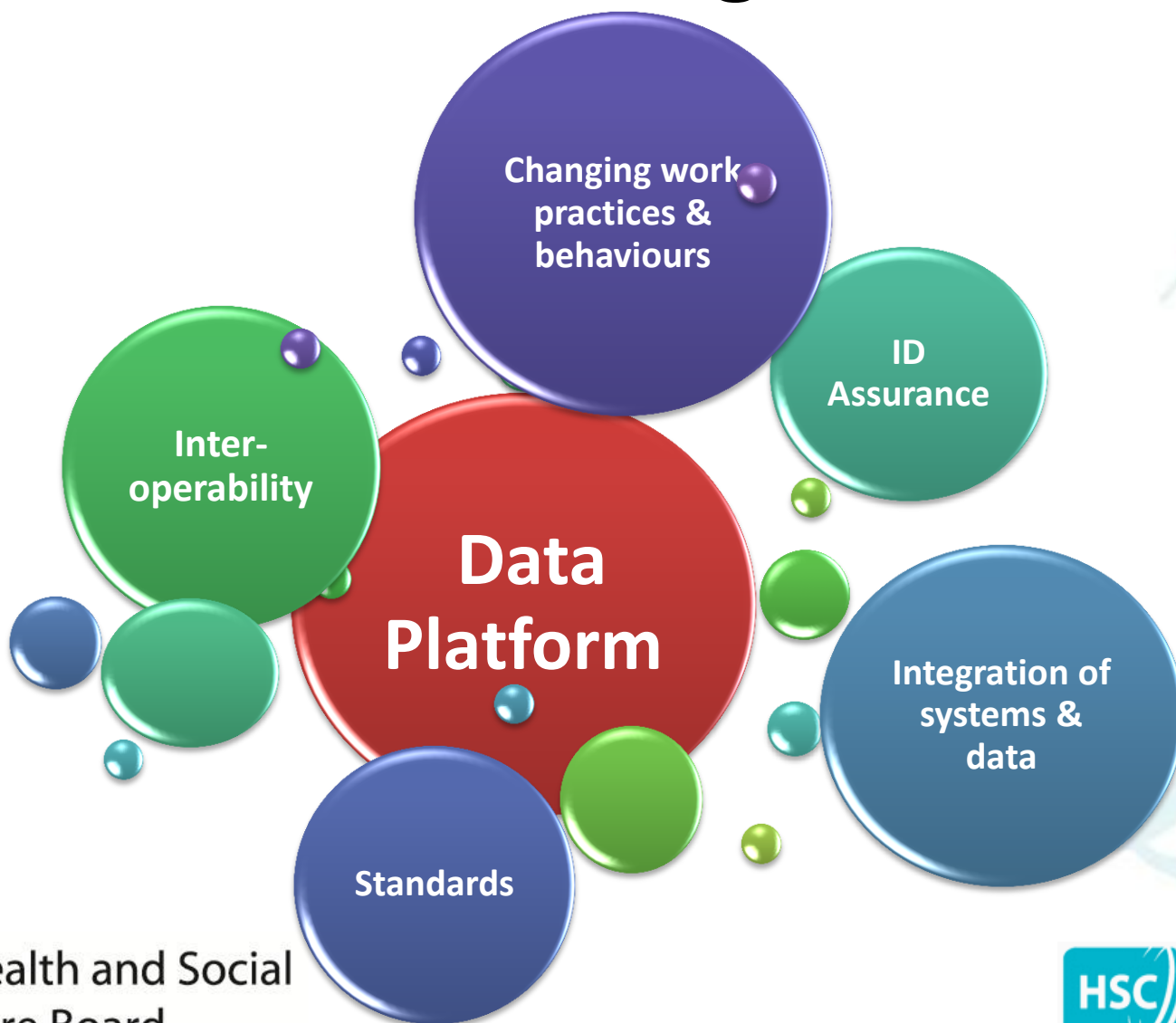
Key Messages

- Good foundation and off to a good start
- Much scope for improvement and the time is right for change
- Lots of learning, sharing between ALL
- New stronger policy drive for e-enabled change
- Ambitious for future

THANK YOU

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