Healthy Ageing Innovation Cluster
AGENDA

- 09:30  Tea/Coffee & Registration
- 10:00  Welcome and Cluster Update  Moira Mackenzie, DHI
- 10:15  UKRI Director of Research, Healthy Ageing Innovation Challenge - Professor Judith Phillips
- 10:45  Intro to Advanced Care Research Centre - Professor Ian Underwood
- 11:00  Scotland’s AI Strategy Consultation - Steph Wright, The Data Lab
- 11:15  Tea/Coffee refresh
- 11:30  Developing a data and innovation platform for Care Homes – Dr Susan Shenkin/Lucy Johnston
- 12:00  The potential of technology to promote social connectedness for adults in Scotland - Alison Dawson, University of Stirling
- 12:15  ECHAlliance Ecosystem Opportunities - Andy Bleaden, ECHAlliance
- 12:20  Cluster Feedback & intro to Afternoon Session  Moira Mackenzie, DHI
- 12:30  Lunch/Networking
- 13:30  Co-design workshop on Care Giving Innovation Fund Challenge – Leah Lockhart, Facilitator
- 15:30  Close
Aim: To accelerate digital innovation and Adoption in health and care.

<table>
<thead>
<tr>
<th>Create</th>
<th>Share</th>
<th>Build</th>
<th>Seek &amp; Solve</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a collective of shared interests, expertise and skills</td>
<td>Share information and support knowledge exchange</td>
<td>Build Collaborations that are greater than the sum of their parts.</td>
<td>Seek and solve demand led challenges</td>
<td>Identify funding/host challenge opportunities</td>
</tr>
</tbody>
</table>

• 270+ individual members

• 5 meetings since Dec 2018

• Average of about 60 attendees per cluster

• Survey out at the moment for feedback on the impact of the cluster to date and how it will move forwards...please take 5 minutes during coffee/lunch to complete the survey.
Funding Opportunities

- **Innovate UK Smart Grants** – Closing date 22nd April 2020
  - £25k - £500k – for projects between 6-18 months. £25k - £2m for projects between 19-36 months.
  - Further information: [https://apply-for-innovation-funding.service.gov.uk/competition/515/overview?utm_source=December+HAIC&utm_campaign=fe6e29cf4d-EMAIL_CAMPAIGN_2020_01_07_09_36&utm_medium=email&utm_term=0_bd107602c8-fe6e29cf4d-335810841#summary](https://apply-for-innovation-funding.service.gov.uk/competition/515/overview?utm_source=December+HAIC&utm_campaign=fe6e29cf4d-EMAIL_CAMPAIGN_2020_01_07_09_36&utm_medium=email&utm_term=0_bd107602c8-fe6e29cf4d-335810841#summary)

- **NIHR – 20/07 Mobile data for public health** – closing date 28th July 2020
Funding opportunities continued...

- **Voices for Diagnosis – £10k USD** - The Foundation for innovative new diagnostics, with sponsorship from Becton, Dickson & Company and Johnson and Johnson – for implementing innovative new approaches to improve access to and demand for, timely and cost effective diagnostic solutions for infectious diseases in low and middle income countries – this call theme is “protecting antibiotics by promoting approaches that support evidence based prescribing”.

- **Tech for Good - £50k per project** - Comic Relief, in partnership with the Paul Hamlyn Foundation, will be opening the next Tech for Good Programme in February 2020. This fund supports not-for-profit organisations who already have some technical capabilities to take their digital innovation projects forward. The awards will focus on 4 core areas: Children survive and thrive, global mental health matters, Fighting for gender justice and a safe place to be.

- **Innovate UK – Digital Health Technology Catalyst** – Anticipated June 2020
HAIC Survey – initial feedback

- **Top 3 cluster activities:**
  - Identification of funding and collaboration opportunities
  - Sharing information and exchanging knowledge
  - Being part of a collaboration that is greater than the sum of its parts

- **Missing activities?**
  - A digital collaboration environment for sharing knowledge and help networking/link ups
  - Looking at standards and regulations
  - User Group Representation
  - Web-ex facilities
Feedback continued...

- **How can the cluster be improved in 2020?**
  - Distributing profiles/attendee lists prior to event to aid networking/Online capacity for making connections
  - Help to quantify the problems being addressed
  - More opportunities for pitches
  - Create a forum for developing new and innovative opportunities – led by cluster members
  - Honour those making a contribution
  - Bring in stakeholders who live with the issues the cluster is trying to address
Benefits and impacts

- Provides a greater understanding of the front line challenges
- Understanding the sector better.
- Useful to meet people and understand where they are coming from and why they might not understand or appreciate the same things you do.
HAIC Survey Participation

https://tinyurl.com/haicsurvey
Can Do Innovation Challenge Fund

SUPPORTING INNOVATION IN THE PUBLIC SECTOR
Fund Benefits

Public Sector – Challenge Sponsor
• Explore creative solutions
• Reduced delivery costs
• Deliver improved service quality
• Reduced risk to developing innovative solutions
  ▪ Up to 100% funding to find and develop solutions
  ▪ Phased, competitive procurement process

Industry – Challenge Solver
• Access to crucial 1st customer
• Demonstrate technology with challenge sponsor
• Stepping stone to wider market exploitation
• 100% funding for R&D costs
• Retain the right to exploit IP
Results to Date

Public Sector (Sponsors)
• 4 calls
• 116 applications
• 52 organisations
• 23 projects approved
• 18 launched

Company (Solvers)
• 261 applications to first 12 projects
• 55 contracts awarded
• 58% Scottish winners.

Example Project Sponsors
Can Do
- Challenge Attributes Required

- Clear challenge identified, significant impact on public service/policy delivery if solved.
- Market assessment – no solution available and require innovation.
- Line of sight to implementation and roll out - don’t just want tech demo!
- Project management resource to lead project.
- Significant market for the solution outside 1st customer.
- Strength in Scottish supply chain to compete and benefit.
- Further info on Can Do ICF and other support at https://www.openinnovation.scot/support-and-funding
- Contact Team to discuss challenge ideas - candoicf@scotent.co.uk
Healthy Ageing Challenge: Social, Behavioural and Design Research Programme

Prof Judith Phillips, Research Director

Healthy Ageing Innovation Cluster
4th March, Edinburgh
Healthy Ageing Opportunities

The ambition is to impact on the lives of millions of people within a decade. This will have both social and economic impacts and is a global opportunity for business.

- Lifecourse approach; inclusive design;
- Meaningful engagement and co-design; reflecting the diversity of older people; innovative use of existing data.

The Challenge themes, developed by the Centre for Ageing Better, offer the greatest opportunities to tackle market failures and stimulate innovation.
Eco system of the Healthy Ageing Challenge
Healthy Ageing Challenge Investments

Community of Practice

Research
- £8.6M
- Social, behavioural and design research
- Multi-disciplinary, multiple institutions

Investment Accelerator
- £29M + match
- Individual innovations with clear potential to be adopted at scale

Trailblazers
- £40M + match
- Larger ‘service integration’ collaborations
- Impact at scale

Early Stage Pipeline
Background

Our commitments and strategic priorities for ageing and demography research
Broader Strategic Context

Range of relevant high profile activities & priorities e.g.

• Government’s Ageing Society Grand Challenge – mission to ensure people enjoy ‘five extra healthy, independent years of life by 2035, whilst narrowing gap between experience of the richest and poorest’.
  ➢ Industrial Strategy “Healthy Ageing Challenge” within this
• Conservative manifesto commitment to “long term solution to social care”
• NHS Long Term Plan – includes support to help people age well
Specific ‘Changing Populations’ priority area

But also relevance across the broader Delivery Plan
ESRC Delivery Plan – Changing Populations

Near term actions

Connecting Generations – “a programme that expands research on demographic change and its consequences for transfers between generations”

Inclusive Ageing – “an initiative that takes a life-course approach to understanding the impact of early-life-course factors on later life, key transition points and the wide range of social and economic factors affecting health, social risks and outcomes”

Funding format – Centre, full competition launch in April 2020

Funding format – to be decided, launch later 2020
Past activity

What ageing and demography research have we funded so far?
Managed and Responsive ESRC-led Research

• Example: Ageing and demography research funded through our responsive mode grants assessment process
  • e.g., “Understanding Recent Fertility Trends in the UK and Improving Methodologies for Fertility Forecasting” (PI: Professor Hill Kulu)

• Example: Since 2009 over £12m invested in the Centre for Population Change (CPC), directed by Professor Jane Falkingham

• Example: Historic, large-scale investment in longitudinal studies including English Longitudinal Study of Ageing, Understanding Society, 1970 British Cohort Study, Northern Ireland Cohort for the Longitudinal Study of Ageing, 1958 National Child Development Study
Recent Relevant ESRC Initiatives

• Example: Award made through our Innovation In Social Care call in 2019 will support the adult social care sector to start up, implement, spread and scale-up affordable innovations that work well for all adults needing care. (PI: Dr Juliette Malley)

• Example: Since 2014 the ESRC/NIHR Dementia Research Initiative has funded 10 large grants bringing together clinical application and social science in dementia prevention, interventions and care
Working with UKRI and International Partners

• Example: £75m invested across two major cross-council ageing programmes
  • **New Dynamics of Ageing**
    • ESRC led with AHRC, BBSRC, EPSRC, MRC (2002 – 2012)
  • **Lifelong Health and Wellbeing**
    • MRC led with AHRC, BBSRC, ESRC, EPSRC (ran 2011 – 2015)

• Example: Joint Programming Initiative, More Years Better Lives (JPI MYBL)
  • **Joint Transnational Call 2015** on Extended Working Life and its Interaction with Health, Wellbeing and beyond
  • Fast-track activities on e.g., employment participation of older workers, demographic change and migration
Current activity

What ageing and demography research are we working to fund next?
Industrial Strategy Challenge Fund

Healthy Ageing Challenge

• “enable businesses, including social enterprises, to develop and deliver products, services and business models that will be adopted at scale which support people as they age. This will allow people to remain active, productive, independent and socially connected across generations for as long as possible”

• ESRC leads on:
  • ISCF Healthy Ageing Research Director (Professor Judith Phillips)
  • Social, Behavioural and Design Research Programme
  • Global Catalyst Awards, with National Academy of Medicine (US)
Strategic Priorities Fund

UK Centre for Evidence Implementation in Adult Social Care

- Better use of research evidence in adult social care
- ESRC collaborating with The Health Foundation - £15m, commence Oct 2020

Multimorbidity

- MRC led, in partnership with DHSC (NIHR) and ESRC

Pain

- MRC led, in partnership with Versus Arthritis, BBSRC and ESRC
Fund for International Collaboration

UK-China Healthy Ageing initiative

• Interdisciplinary call on understanding and addressing health and social challenges facing ageing societies
• ESRC-led in partnership with MRC and NSFC (China)
Thank you
Advanced Care Research Centre (ACRC)
Professor Ian Underwood FREng FRSE FInstP
Director, the Academy, ACRC
Strategic Partnership - University of Edinburgh

World Top 20 in research and innovation  
(QS World University Rankings 2020 of Top Global Universities)

UK’s largest ever R&D investment in data-driven innovation
“Best City Deal in the UK”

Founding partner in Turing plus major UKRI dementia/ageing networks

Highlights in 2019:
• Data for Children collaborative  UNICEF & Scottish Government
• DDI DataLoch  NHS, H&SC Partnerships
• ARCHER2 Nat’l Supercomputer  UKRI & Cray
• Hainan Medical Campus  China Merchant Group, SJTU
• ACRC  Legal & General
Legal & General Funding

• Legal and General is the UK’s largest provider of individual life cover and the UK’s largest investment manager for corporate pension schemes.

• Revenue > £42.5 billion

• Assets under management > £1 trillion

• L&G has made a public commitment to inclusive capitalism (Forbes Magazine 4th Feb 2020)

• £20M research grant to UoE May 2020
Context

• Population ageing
  • Life expectancy growing faster than healthy life expectancy
• Health and social care systems not optimal
  • Austerity but also single disease focus in health
  • Poorly coordinated and don’t always focus on what matters to individuals and their families
• A major societal challenge
  • Care is complicated
  • Many stakeholders committed to this area
Context
Our vision is of data-driven, personalised and affordable care that supports the independence, dignity and quality of life of people living in their own homes or in supported care environments.
Active stakeholder engagement to co-create research and translation into policy and practice
Leading a national debate about “Your Life: Who Cares?”

Understanding the person in context
Data-driven insights and prediction
New technologies of care
New models of care

The person in later life is at the heart of everything we do

World-leading inter-disciplinary and cross-sectoral research.
Translation into health and social care policy and practice.
New companies, products and services.
Informing the wider societal response to the challenges of population aging.

The Academy for Leadership and Training
Educating and training the leaders of the future through a uniquely interdisciplinary doctoral training programme.

Enhancing the data infrastructure in later life
Systematically exploiting and enhancing existing data, and developing new data resources
Some ACRC Workpackages
The Academy (cross-cutting)

Capacity Building:
Develop a new generation of leaders in the care sector trained in innovation who possess research expertise and deep specialist knowledge, and a broad cross-disciplinary/cross-sectoral perspective fostered by a unique cohort-based pan-disciplinary structured programme of training and research - “PhD with Integrated Study”.

Agile Component of the Research Agenda:
Deliver significant aspects of the research agenda of the ACRC including more speculative and high-risk / high-reward project topics.
Enhancing the data infrastructure (cross-cutting)

80% of the world’s data is unstructured
Understanding the person in context

Personal Projects

Citizenship & Care

Care Transitions

Value for Care

Develop new data-driven sharing models to support and sustain informal care networks

Shifting the focus of care to promote social participation and active citizenship throughout life
Data driven insights and prediction

Function and quality of life

Low

High

Need for care and resource use

Low

High

Single late catastrophic event
New technologies of care

Phase I:
Implement routine physiological monitoring

Phase II:
Develop and implement additional sensing modalities and interactive technologies

• Not technology push!
• Must deliver according to evidence of end-user or carer requirement
• Not one-size-fits-all!
New models of care

- New technologies
- New NLP techniques
- New data and prediction tools
- New understanding of people in later life
- New way of leadership training
- New way of communicating the issues

= New models of care
Timeline

Now Year 1 Year 2 Year 3 Year 4 Year 5 Years 5–10

Advanced Care Research Centre (ACRC)
Core research and innovation programme

Turing of Care
Multi-university/industry/country collaboration with leveraged funding

ACRC dedicated hub
Wider Medical School and Edinburgh Bioquarter Development
ACRC Development

- L&G Core ACRC Funding
- Other Grant Funding
- Other Industry Funding
Thank you for your attention

To get in touch email  acrc@ed.ac.uk
Some ACRC Ambitions

Lead **public debate** on meeting the challenges of an ageing population

Develop understanding and **insight** into the changing nature of ageing

Device robust methods & tools to **predict mortality** and care transitions

Develop and test **novel technologies** to support people in later life

Implement, evaluate new **data-driven models** of health and social care

Educate & train **future industry leaders** and experts in the Academy

Insight into **future needs, opportunities** inspiring new products & services

Support **innovation & entreprise** in the Accelerator (part of the Academy)
The Scottish Government (SG) have tasked The Data Lab Innovation Centre (TDL) to be an impartial convenor and lead on the coordination of the strategy’s development.
Benefit to the people of Scotland will be the core guiding principle for the development of the strategy and the strategy itself.

The process will be OPEN and TRANSPARENT.

We will provide as many opportunities as possible for everyone to contribute.
“We aim to develop a strategy that is of Scotland, by Scotland and for Scotland.”

— Kate Forbes MSP, Cabinet Secretary for Finance
Through the adoption of AI:

- the people of Scotland will thrive, and
- Scotland’s organisations will prosper

Aligned to the National Performance Framework
What do we mean by AI?
Technologies with the ability to perform tasks that would otherwise require human intelligence, such as visual perception, speech recognition, and language translation.

House of Lords Select Committee on AI
WHAT IS AI?

PROCESSING...

THE ROYAL SOCIETY
Desired Outcomes

**STRATEGY**
A high level AI strategy for Scotland that outlines the roadmap for the following 5 years with key targets/ambitions

**OWNERSHIP**
A declaration of strategy owners and their responsibility for roadmap delivery needs

**TRUST**
Build trust in the use of data and AI technologies and in organisations using them

**INVESTMENT**
The strategy should outline measures to leverage existing national assets and identify new areas for investment from public and private sector
**PROCESS**

**PHASE 1**  
September - December 2019  
Formation of Steering Committee and Development of Scoping Document

- Formation of Steering Committee  
  - Chaired by Kate Forbes MSP, Minister of Public Finance and Digital Economy  
  - Comprising of senior representatives from relevant bodies and sectors providing balanced and diverse representation across Scotland

- Steering Committee workshop 1

- Steering Committee workshop 2

- Development of Scoping Document

**PHASE 2**  
January - March 2020  
Consultation and Engagement

- Open consultation  
  - Workshop on 20 January 2020  
  - Citizen Space consultation open early February 2020  
  - Consultation close end March 2020

- Engagement activities  
  - Comprising of 3 elements  
    - Digital  
    - Guided discussions  
    - Deliberative events

- Working group recruitment  
  - Application process for working groups open on 20 January 2020

**PHASE 3**  
February - May 2020  
Working Groups

- Responses form basis of topics to be addressed by Working Groups

- Outputs form basis of topics to be addressed by Working Groups

- Working Groups  
  - 8-10 members comprised of the following:  
    - Steering Committee members  
    - Targeted invites  
    - Recruited through open process

  - Using consultation responses and outputs from engagement activities as the foundation  
    - Tasked to:  
      - Address concerns  
      - Discuss challenges  
      - Identify priorities  
      - Recommend actions

- Join the Dots  
  - Invite only group comprising of representatives from relevant Scottish, UK and International strategic initiatives

- Steering Committee workshop 3

**PHASE 4**  
June - August 2020  
Finalisation of Strategy

- Collating Phase 3 outputs into final strategy

- Further engagement activities (TBC)

- Final Steering Committee workshop

**PHASE 5**  
September 2020  
Strategy Launch

- Strategy Launch  
  - Programme of Government 2020  
  - PR and media activity

- Handover  
  - Strategy handed over to Data Delivery Group

- Preparation of final strategy for launch
Strategic themes

- Development of AI and AI enabled products & services
- Ethical and regulatory frameworks
- Skills and knowledge
- Data infrastructure

Join the dots
Key things that have happened

- Scoping document published for open consultation on 24 January 2020
- Public consultation opened on 17 February 2020 and will close 27 March 2020
- Open application process for working groups now closed
- Engagement programme launched February 2020
How to get involved?

• Respond to the consultation on the scoping document
  • Submit an individual or organisational response
  • Organise your own engagement activities to form a response to the consultation
• Participate and encourage others to participate in the engagement activities. We have fun interactive online quizzes available as well as a series of downloadable conversation packs to prompt discussions. We will also be running events in Glasgow and Inverness
THANK YOU AND QUESTIONS?

Please email Steph Wright
AI Strategy Development Lead at Data Lab
(also Director of Health & Wellbeing Engagement)

steph.wright@thedatalab.com
Developing a Data and Innovation Platform for Care Homes:

A Whole Systems Analysis and Approach
Funding for 12 months from: 
East Region Innovation Team & National Test Bed Governance Group

Dr Susan D Shenkin, Clinical Senior Lecturer, Geriatric Medicine and Usher Institute University of Edinburgh

Lucy Johnston - Research Fellow, Edinburgh Napier University

• Susan.Shenkin@ed.ac.uk
• L.Johnston@napier.ac.uk

@lucyjohnston555
@SusanShenkin
The rest of the Team

- 6 CARE HOMES - Lothian Care Home Innovation Partnership

- **Dr Jo Hockley**, Senior Nurse Researcher, Primary Palliative Care Research Group, Usher Institute;

- **Professor Scott Murray**, Emeritus Professor of Primary Palliative Care, Usher Institute;

- **Dr Catherine Mahoney**, Lecturer, Edinburgh Napier University

- **David Henderson**, Research Fellow, Scottish Centre for Administrative Data Research & Edinburgh Napier University
What we will share with you today

- Further detail on what we have been doing over last 7 months
- Provide Scottish Care Homes Context
- Share some findings with you
- Set out our next steps and potential areas for innovation & collaboration
What have we been doing?

Data scoping and groundwork undertaken to

(a) develop an inventory of routine data (Minimum Data Set)
(b) clarify the innovation challenges through a whole systems analysis of the extent and nature of the problem(s) to be solved within care homes and
(c) develop community of interests/partnerships across homes, academia and industry to progress future bids/collaborations.
Understanding 'data' needs of ongoing and future research

Minimum Data Set and 'harmonising' data

Care Home Research Interests and Data Capabilities and ‘readiness’

Priorities for data & technological innovation and forming partnerships

Opportunities for data innovation

Readiness for technological innovation

DATA DRIVEN INNOVATION

SERVICE INNOVATION

Opportunities for data innovation

Minimum Data Set and ‘harmonising’ data Specification and collection

Priorities for data & technological innovation and forming partnerships

Readiness for technological innovation

Opportunities for data innovation
Why have we been doing it?

• The care home sector has huge potential to benefit from technological innovations.

• Realising this potential will require strong three way partnerships between care homes, innovators in academia and industry partners.

• Learning from the Care Home sector can inform Home Care Services, wider data initiatives, interoperability (NHS/social care/third sector) and workforce issues

• Feeding into the VISION for a Teaching/Research based Care Home

• Care Home Residents ………..should not be left behind
Care Homes in Scotland (1)

• Around 1,100 care homes FOR OLDER PEOPLE
  – 58.6% privately owned
  – 27.1% owned by voluntary or not-for-profit providers
  – 14.3% by local authority or Health Board

• 31,223 long stay residents in care homes for older people (March 2017: ISD)

• Hospital Beds in Scotland???
  13,500
Care Homes in Scotland (2)

Location of Adult Care Homes in Scotland 2012-2016

- Older People
- Learning Disabilities
- Mental Health Problems
- Physical and Sensory Impairment
- Other

Health Board Boundaries
1. Ayrshire & Arran
2. Borders
3. Dumfries & Galloway
4. Fife
5. Forth Valley
6. Grampian
7. Greater Glasgow & Clyde
8. Highland
9. Lanarkshire
10. Lothian
11. Orkney
12. Shetland
13. Tayside
14. Western Isles
Care Home Residents in Scotland

- Median age is 83 years
- Most are female (over two-thirds of care home residents)
- The percentage of long stay residents living with dementia (either medically or non-medically diagnosed) was 62% at 31 March 2017
- Care home residents are increasingly frail with multiple co-morbidities
- Median time to death is 1.7 years
Care Homes in Lothian Partnership

- Braeside, Royal Blind, Edinburgh – small ‘charitable’ organisation
- Cluny Lodge, Edinburgh – small ‘for profit’ family run business
- Erskine Edinburgh – small ‘charitable’ organisation
- Linlithgow Care Home – part of a large ‘for profit’ organisation
- Newbyres Village, Midlothian – council run care home with on-site nursing
- Viewpoint Housing, Edinburgh – medium ‘not for profit’ organisation
Results of Scoping & Groundwork

DATA PLATFORM

CHALLENGE AREAS
Table 1: Comparison of SCS and SCHC demographic categories

<table>
<thead>
<tr>
<th>Data Variable</th>
<th>Social Care Survey</th>
<th>Scottish Care Home Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth</td>
<td>Date of Birth</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>Age</td>
<td>Age</td>
<td>Not collected</td>
</tr>
<tr>
<td>Gender/Sex</td>
<td>Male or Female</td>
<td>Male, Female, or other</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>Mixed or multiple ethnic groups</td>
<td>Other Ethnic group</td>
</tr>
<tr>
<td></td>
<td>Asian, Asian Scottish, or Asian British</td>
<td>Not disclosed</td>
</tr>
<tr>
<td></td>
<td>African, Caribbean, or Black</td>
<td>Not known</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic Background not disclosed</td>
<td></td>
</tr>
</tbody>
</table>

Client Characteristics:

- Dementia
- Mental Health Problems
- Learning Disability
- Physical Disability
- Addiction
- Palliative Care
- Carer's
- Problems arising due to infirmity of age
- Other
- Requires Nursing care
- Dementia - medically diagnosed
- Dementia - not medically diagnosed
- Visual Impairment
- Hearing Impairment
- Acquired brain injury
- Learning disability
- Other physical disability or chronic illness
- Mental Health Problems
- Alcohol Dependency
- Drug Dependency
- None of these

Colours denote agreement across sources: **Green** = exact match, **Amber** = Similar match, **Red** = No match
Data Domains in Care Homes

- Demographic
- Diagnosis
- Detailed Care Planning Information (DCPI)
Who Uses Care Home Data?

- Recording and evidencing care
- Alerting to need for new/different care
- Evaluating Care
- Sharing Information
  - Internally e.g. shift handover
  - Externally e.g. care partners for care coordination or transitions
- Comply with regulation, governance, and inspection
- Manage workforce and budget
Can we use Care Home Data?

Table 4: Examples of the number and range of assessment components for care planning

<table>
<thead>
<tr>
<th>Erskine (Edinburgh)</th>
<th>Linlithgow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Infection Care Plan</td>
<td>Behaviour</td>
</tr>
<tr>
<td>Anticipatory Care Planning/End of Life Care</td>
<td>Bladder &amp; Bowel</td>
</tr>
<tr>
<td>Breathing &amp; Smoking</td>
<td>Choking</td>
</tr>
<tr>
<td>Bowel &amp; Bladder</td>
<td>Communication</td>
</tr>
<tr>
<td>Communication</td>
<td>Dependency Rating Scale</td>
</tr>
<tr>
<td>Eating &amp; Drinking</td>
<td>DNACPR/End of life decisions</td>
</tr>
<tr>
<td>Falls</td>
<td>Eating &amp; Drinking</td>
</tr>
<tr>
<td>Hearing/Vision</td>
<td>Falls Risk</td>
</tr>
<tr>
<td>Life History/This is me</td>
<td>Mood</td>
</tr>
<tr>
<td>Medication and Treatment</td>
<td>Oral Health</td>
</tr>
<tr>
<td>Mental Health, Cognition, (Memory/Understanding), and Personal Safety</td>
<td>Personal Care</td>
</tr>
<tr>
<td>Mobility</td>
<td>Mobilising</td>
</tr>
<tr>
<td>Oral &amp; Dental</td>
<td>Waterlow Risk</td>
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<tr>
<td>Personal Hygiene</td>
<td></td>
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<tr>
<td>Restraint Risk</td>
<td></td>
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<tr>
<td>Sleep &amp; Resting</td>
<td></td>
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<tr>
<td>Waterlow/Pressure Ulcer Assessment</td>
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</table>
Harmonisation or Discord?

Table 6a: Assessment tools/measures used for “routine data”

<table>
<thead>
<tr>
<th>Area assessed</th>
<th>Cluny</th>
<th>Erskine</th>
<th>St Raphael’s</th>
<th>Braeside</th>
<th>Newbyres</th>
<th>Linlithgow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dependency/indicator of need</td>
<td>Augmented IoRN, IoRN</td>
<td>IoRN</td>
<td>Dependency assessment</td>
<td>IoRN</td>
<td>IoRN</td>
<td>Organisation Form</td>
</tr>
<tr>
<td>2 Nutrition</td>
<td>MUST</td>
<td>MUST</td>
<td>MUST</td>
<td>MUST</td>
<td>Must</td>
<td>Organisation Form</td>
</tr>
<tr>
<td>3 Weight</td>
<td>Kg/BMI</td>
<td>Kg/BMI</td>
<td>Kg/BMI</td>
<td>Kg/BMI</td>
<td>Kg/BMI</td>
<td>Kg/BMI</td>
</tr>
<tr>
<td>4 Incidence and risk of falls</td>
<td>FRASE</td>
<td>Organisation Form</td>
<td>Falls Risk</td>
<td>Falls Risk</td>
<td>Organisation Form</td>
<td>Organisation Form</td>
</tr>
<tr>
<td>5 Incidence and risk of pressure sores</td>
<td>Braden (at least monthly)</td>
<td>Pressure Ulcer Cross/PUD Checklist/Waterlow (monthly or as required)</td>
<td>Waterlow</td>
<td>Waterlow</td>
<td>Waterlow</td>
<td>Skin Integrity Care Plan</td>
</tr>
<tr>
<td>6 Infections</td>
<td>Count/type of infection</td>
<td>Count/type of infection</td>
<td>Count/type of infection</td>
<td>Count/type of infection</td>
<td>Count/type of infection</td>
<td>Count/type of infection</td>
</tr>
</tbody>
</table>
### No Standardised Assessments

**Table 6b: Assessment tools/measures used for “regularly used data”**

<table>
<thead>
<tr>
<th>Area assessed</th>
<th>Cluny</th>
<th>Erskine</th>
<th>St Raphael’s</th>
<th>Braeside</th>
<th>Newbyres</th>
<th>Linlithgow</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wounds</strong> <em>(new and ongoing)</em></td>
<td>Internal Chart</td>
<td>STAR Classification</td>
<td>Wounds assessment</td>
<td>Chart on PCS</td>
<td>NHS Wound Assessment Chart</td>
<td>Organisation Form</td>
</tr>
<tr>
<td><strong>Frailty</strong></td>
<td>CIRC</td>
<td>SPAR Tool</td>
<td>Edmonton Frailty Scale</td>
<td>Clinical Frailty Scale</td>
<td>Not collected</td>
<td>Not collected</td>
</tr>
<tr>
<td><strong>Bowel Movement(s)</strong></td>
<td>Bristol Stool Chart</td>
<td>Bristol Stool Chart</td>
<td>Chart on PCS</td>
<td>Bristol Stool Chart</td>
<td>Bristol Stool Chart</td>
<td>Organisation Form</td>
</tr>
<tr>
<td><strong>Fluid intake</strong></td>
<td>Internal chart</td>
<td>Organisation Form</td>
<td>Chart on PCS</td>
<td>Chart on PCS</td>
<td>Organisation Form</td>
<td>Organisation Form</td>
</tr>
</tbody>
</table>
Stabilising the Data Platform

- Data Driven Innovation?
- Policy?

National Minimum Data
- Data on Non-Care Tasks
  - Data on Staff Input/Outcomes

Standardisation/Utility/Interoperability
Care Home Challenge Areas

- Staff wellbeing
- Evidencing causation/paths to +VE outcomes
- Roles and functions of staff
- In House Diagnostics/Alerts/treatments
- Systems/Role change? – hospital admissions/primary care demands
- People Centered holistic data on living and dying
Our Next Steps

• Develop work with wider group of Care Homes on range and diversity of data systems and assessment tools (ENRICH)

• Refine and sense check challenge areas ----> Challenge STATEMENTS

• Hold a knowledge Exchange Event in late Spring for Interested People/Organisations

• Continue to Actively develop partnerships with industry to address identified innovation challenges and develop funding bids
Contact us:

- Susan.Shenkin@ed.ac.uk
  (also to be added to ‘Ageing Research Network’ email distribution)
- L.Johnston@napier.ac.uk

@SusanShenkin
@lucyjohnston555
T&SCon

The potential of technology to promote social connectedness for adults living in Scotland

Louise McCabe, Alison Dawson, Elaine Douglas, Mike Wilson and Alison Bowes

Image: https://www.ohhowcivilized.com/how-to-eat-a-scone-properly/
Social isolation refers to when an individual has an **objective lack** of social relationships (in terms of **quality and/or quantity**) at individual, group, community and societal levels.

Loneliness is a **subjective** feeling experienced when there is a **difference between** the social relationships we would like to have and those we have.

Factors influencing social connectedness

- Individual, community and societal levels
- Complex interactions between levels and factors
- Not all factors open to change

Socio-economic drivers

Life course events and transitions

Societal factors

Community factors

Individual factors
What we did

- Scoping of research, policy and evaluation literature to elucidate the current state of play
- Secondary analysis of HAGIS dataset to understand the scope and patterns of social isolation in Scotland
- Four focus groups with stakeholders from across Scotland providing technology enabled support

Co-creation workshops with service providers and clients to develop **toolkit** for services using technology to address social isolation.
Social Isolation and loneliness

- High - All: 15.1%
- High - Children: 39.8%
- High - Friends: 17.2%
- High - Friends & Family (No Children): 6.3%
- Mod-high - Children & Friends: 5.4%
- Mod - Children (No Friends & 33% No Children): 1.6%

- Hardly Ever Lonely: 9.3%
- Sometimes Lonely: 28.8%
- Often Lonely: 61.9%
Use of Technology

1. On average, how often do you use the internet or email?
   - Over 75% use internet regularly
   - Those highly connected with children and No Friends use the least (though not significant)

2. Where have you used the internet/email in last 3 months?
   - At home – 72%
   - At work – 19%
   - On the move – 27%
   - Library/internet café – 10% *

3. Which device did you use?
   - Desktop computer – 20% *
   - Laptop – 28%
   - Tablet – 30%
   - Smartphone – 25%
   - TV – 7%

4. What did you use internet for?
   - Email – 43% *
   - Finding information about goods/services – 41% *

* Significant variation across profiles
Relationship between Social Isolation and Loneliness

- 6 distinct profiles of social connection based upon frequency of contact with children, family, and friends
- 3 distinct profiles of loneliness: Hardly Ever, Sometimes, and Often (based on UCLA-3 short scale)
- Social Isolation and Loneliness are distinct yet inter-related concepts
- Analyses conducted for T & Scon investigate patterns of digital technology use between profiles.
**Literature review: Inclusion criteria**

<table>
<thead>
<tr>
<th>Relating to social isolation</th>
<th>Relating to population of interest</th>
<th>Relating to technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>(social* AND isolat*) OR (social* AND</td>
<td>adult* OR ‘older’ OR elder*</td>
<td>technolog* OR ‘SMS’ OR telephon* OR internet OR ‘social media’ OR online OR ICT OR</td>
</tr>
<tr>
<td>connect*) OR lonel*</td>
<td></td>
<td>video* OR virtual OR digital</td>
</tr>
</tbody>
</table>

**Inclusion criteria:**

- Studies published in English, on or after 1 January 2008
- Reports of primary research, case studies of interventions or services
- Intervention/service: i) for adults; ii) intended to reduce loneliness or increase social connectedness; iii) involves ICT; iv) examines outcomes related to social connectedness or its elements
Literature review: Search results

**Searched:** EBSCOhost; ScienceDirect: Social Services Knowledge Scotland (SSKS); Web of Science Core Collection

Search results after removal of intra- and inter-database duplicates: **5693**

Potentially relevant on basis of title: **360**

Full texts reviewed: **59**

Items included: **31**

Image: [https://redislabs.com/blog/use-redis-content-filtering/](https://redislabs.com/blog/use-redis-content-filtering/)
Literature review: Key findings

- Few items meet inclusion criteria
- Associations between social connectedness and use of ICTs, use of social networking sites, etc. but not as intervention for social connectedness and do not show causality

Included studies

- Most relate to older populations
- Most report development/prototype testing/piloting (feasibility, acceptability, usability)
- Little on scalability, practical aspects of implementation

Focus groups and co-creation workshops

Experiences and opinions were collected from a diverse range of service providers and adults who use technology to support social connectedness and findings were refined during the two subsequent co-creation workshops.

We found positive examples of technology supporting social connectedness both *directly*, for example, using Skype to connect with family overseas and *indirectly*, by technology freeing up time and energy for social activities, for example, accessing NHS support through text messaging or videoconference.
Co-creation workshop: Feedback on guidelines
Co-production workshop – constructing a case study
The following recommendations emerged for organisations and individuals thinking about using technology to support social connectedness:

**PEOPLE:** recognise potential users as individuals, avoiding assumptions about age, gender, disability etc, and protecting human rights.

**RISK:** careful consideration of risks for individuals is needed but balanced presentation of risks, taking account of individual choice, is important.

**PARTICIPATION:** get staff and potential users on board from the start involving them from the planning stages onwards.

**SYSTEMS:** carefully assess infrastructure as well as devices for cost, accessibility, suitability and usability.

**TRAINING:** users will need support and training to use new devices; peer-to-peer learning, hands-on demonstrations, and simple take-home instructions are recommended.
Guidance for organisations and individuals using technology to promote social connectedness.

‘How to’ guide for setting up a service

Case studies: Individual Service

Evidence Base
- Full project report
- Literature review
- Technology scoping dataset
- Healthy Ageing in Scotland survey analysis

Guidance and supporting project documents available to download as PDFs from: www.tec.scot/resources/

Thank you for listening!

Email: a.s.f.dawson@stir.ac.uk or louise.mccabe@stir.ac.uk
ECHAlliance

“The Global Connector for Digital Health”

Healthy Ageing Innovation Cluster

Andy Bleaden
Director Ecosystems/Membership
ECHAlliance

andy@echalliance.com
@andybleaden
**About ECHAlliance**

**Member Organisation (700+ organisations - Join Us)**
*Companies, policy-makers, researchers, health & social care providers, patients, insurance…*

**who**

**16,500+ experts / professionals**

**Not for Profit Organisation**
*Registered in Ireland and in the UK*

**where**

**Growing reach across 78 Countries and 4.6 billion people**

**International Network of Ecosystems**
*(150+ ecosystem gatherings a year)*

**what**

- Connecting & joining the dots
- Communication / networking
- Member Support
- Global events workshops
- Funding/Tender Services
Become a member of ECHAlliance

- Boost your network
- Join Working groups.
- Discounts on events
- Funding and tender alerts
- Promote your organisation.
- Access Ecosystems
- Make direct Connections
- Collaboration in funded projects

www.echalliance.com
Ecosystems

...bring together a community of stakeholders to develop a joint health agenda, aiming to address and find common solutions to regional health challenges.

The main benefit of working together in an Ecosystem is the multiplier effect of collaborating in our International Network of Ecosystems.

Ecosystems:
- break down silos,
- transform healthcare delivery,
- create economic growth
Members of our International Network of Ecosystems
150+ quarterly gatherings per year

### Our Current Ecosystems 2020

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>City/Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium - Brussels</td>
<td>Finland - Kuopio <strong>NEW</strong></td>
</tr>
<tr>
<td>Belgium - Flanders</td>
<td>Finland - Central Finland <strong>NEW</strong></td>
</tr>
<tr>
<td>Canada - Ontario</td>
<td>France - Bretagne <strong>NEW</strong></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>France - Nice PACA</td>
</tr>
<tr>
<td>Denmark - South</td>
<td>Germany-Rheinland</td>
</tr>
<tr>
<td>England - Manchester</td>
<td>Greece - Athens</td>
</tr>
<tr>
<td>England - North West Coast</td>
<td>Malta</td>
</tr>
<tr>
<td>England - London</td>
<td>Melbourne – Australia <strong>NEW</strong></td>
</tr>
<tr>
<td>England - Yorks/Humber</td>
<td>Netherlands - Friesland</td>
</tr>
<tr>
<td>South West England <strong>NEW</strong></td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>Estonia</td>
<td>Portugal</td>
</tr>
<tr>
<td>Finland Oulu</td>
<td>Republic of Ireland</td>
</tr>
<tr>
<td>Finland Ostrobothnia <strong>NEW</strong></td>
<td>Romania – Cluj-Napoca <strong>NEW</strong></td>
</tr>
<tr>
<td>Finland South Ostrobothnia **NEW</td>
<td>Serbia</td>
</tr>
<tr>
<td>Finland South Ostrobothnia **NEW</td>
<td>Scotland</td>
</tr>
<tr>
<td></td>
<td>Highlands &amp; Islands (Scotland)</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Spain – Valencia</td>
</tr>
<tr>
<td>Spain - Galicia</td>
<td>Spain – Catalonia</td>
</tr>
<tr>
<td>Spain Basque Country <strong>NEW</strong></td>
<td>Sri Lanka <strong>NEW</strong></td>
</tr>
<tr>
<td>Västerbotten- Sweden <strong>NEW</strong></td>
<td>USA - New York</td>
</tr>
<tr>
<td>Wales</td>
<td></td>
</tr>
</tbody>
</table>
Members of our International Network of Ecosystems

NEXT

Norbotten - Sweden
Jämtland - Sweden
Montreal/Quebec
Helsinki – Finland
Satakunta – Finland
Extremadura - Spain
Andalusia Spain
Croatia
Dolomites Italy
Buenos Aires – Argentina
Hess – Germany
Bavaria – Germany
Berlin/Brandenburg – Germany

Also in planning
more in....

East Africa
Chile
Uruguay
France
Norway
Spain
Hungary
Crete
Benefits of joining an International Network of Ecosystems

As part of an international network of ecosystems an ecosystem can:

- Increase access to international markets
- Collaborate with other regions
- Scale up innovation in your region and country in new settings
- Bring in best practice from outside your country in Healthcare
- Join 40+ other Digital Health Ecosystems