

# AHP e-Health Stakeholder Workshop

## e-Health Opportunities

## Re-imagining the Art of The Possible

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28<sup>th</sup> September 2015

# Going Digital

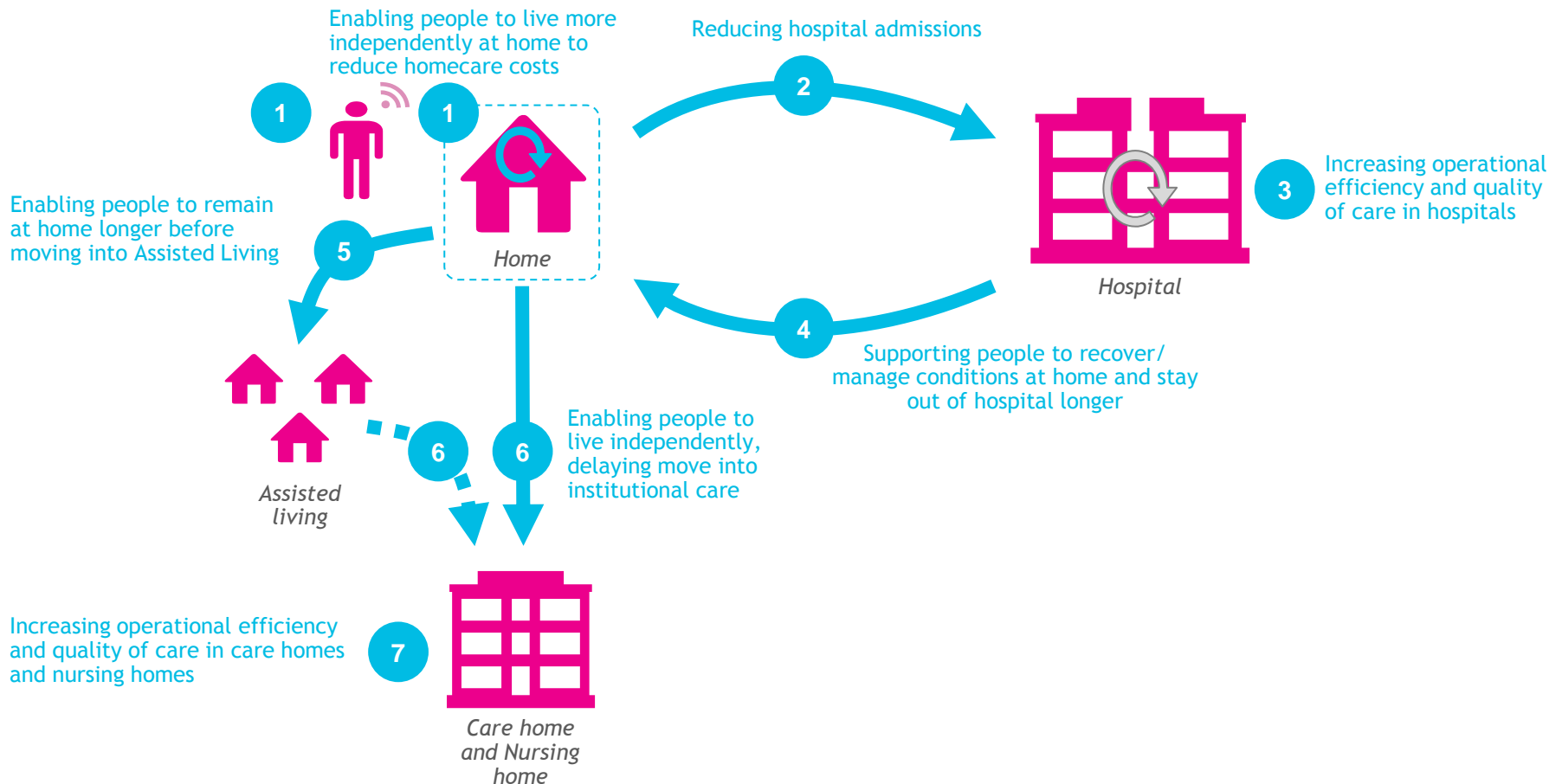
- Non-digital legacy
- Collect & utilise huge quantities of data
- Deliver richer content
- 2 way communications

# Advances

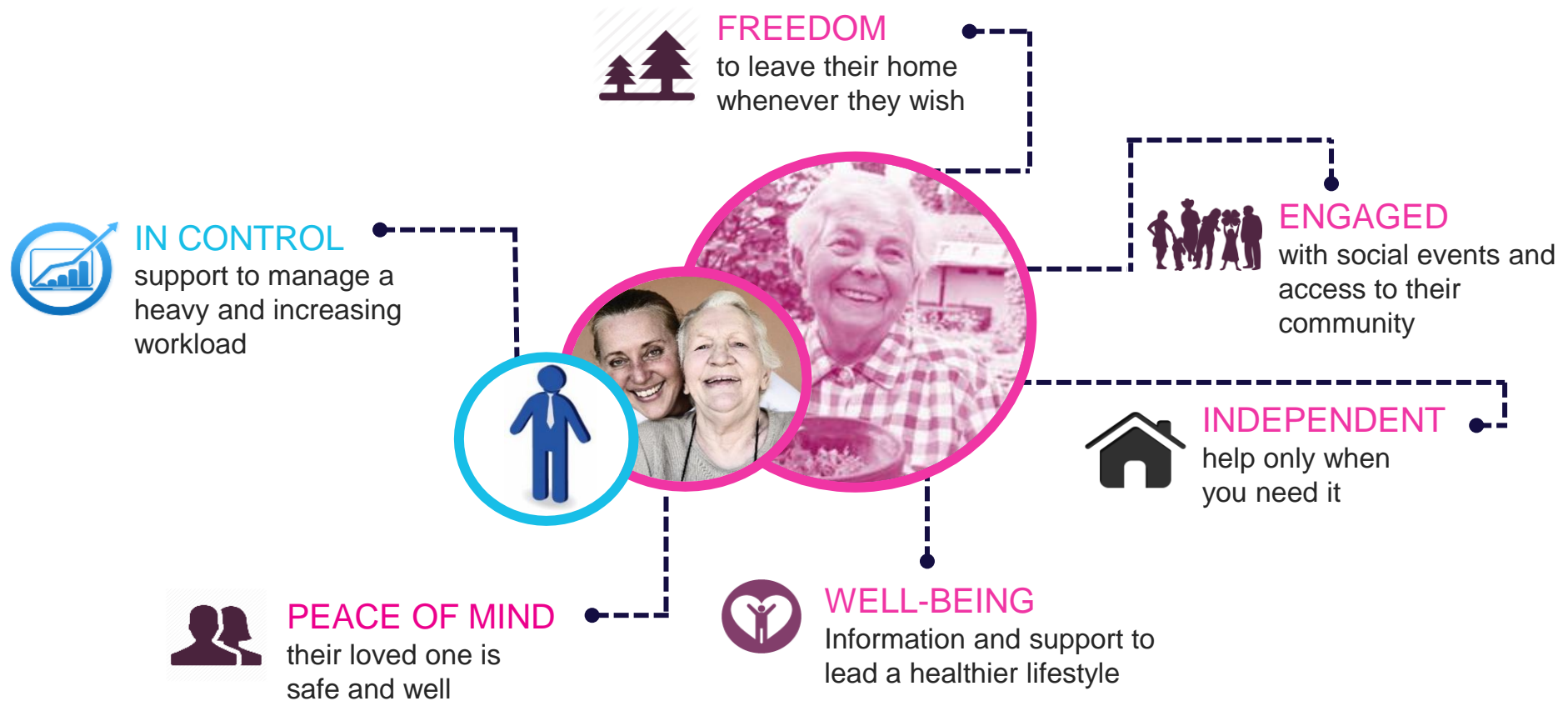
- From existing vital sign monitoring & alarms to.....
  - Sophisticated wearables (fit-bits, clothing google glass)
  - Ingestibles
  - Implants
  - Sensors that talk to each other
  - App based products
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# Health, Care & Housing demanding alternative and efficient service models

Opportunities for efficiency and improved care



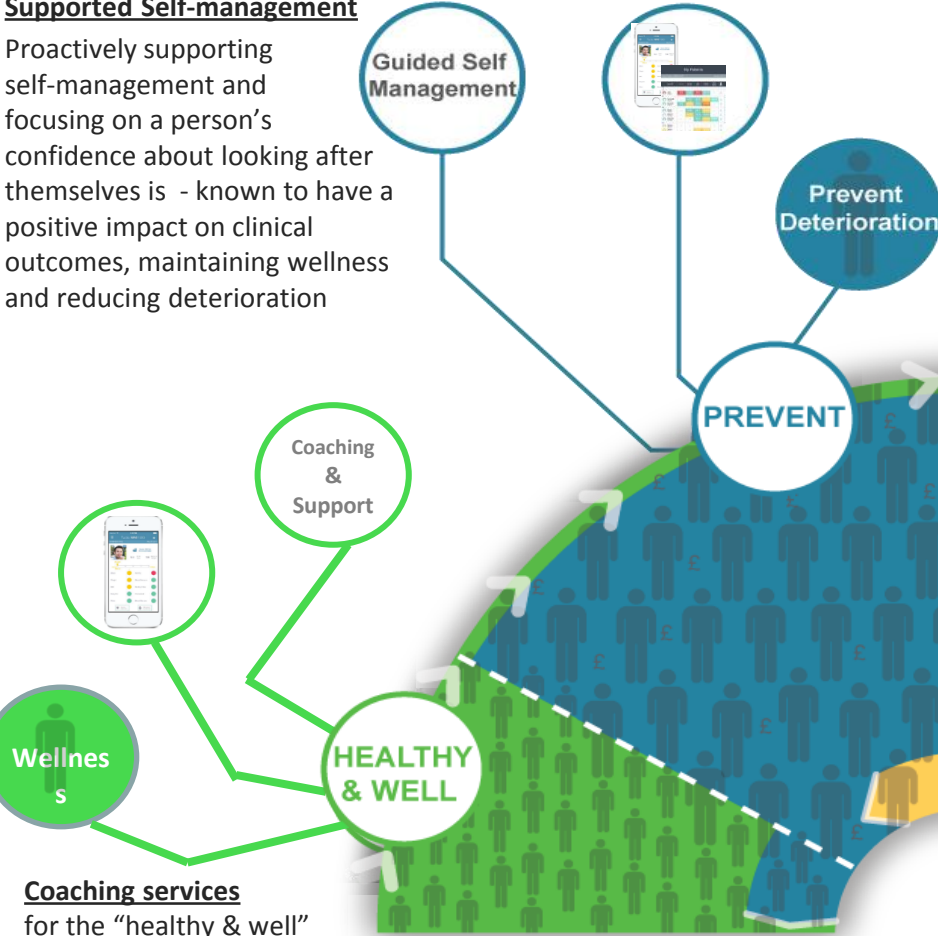
# IP-enabled product with focus on wider user needs



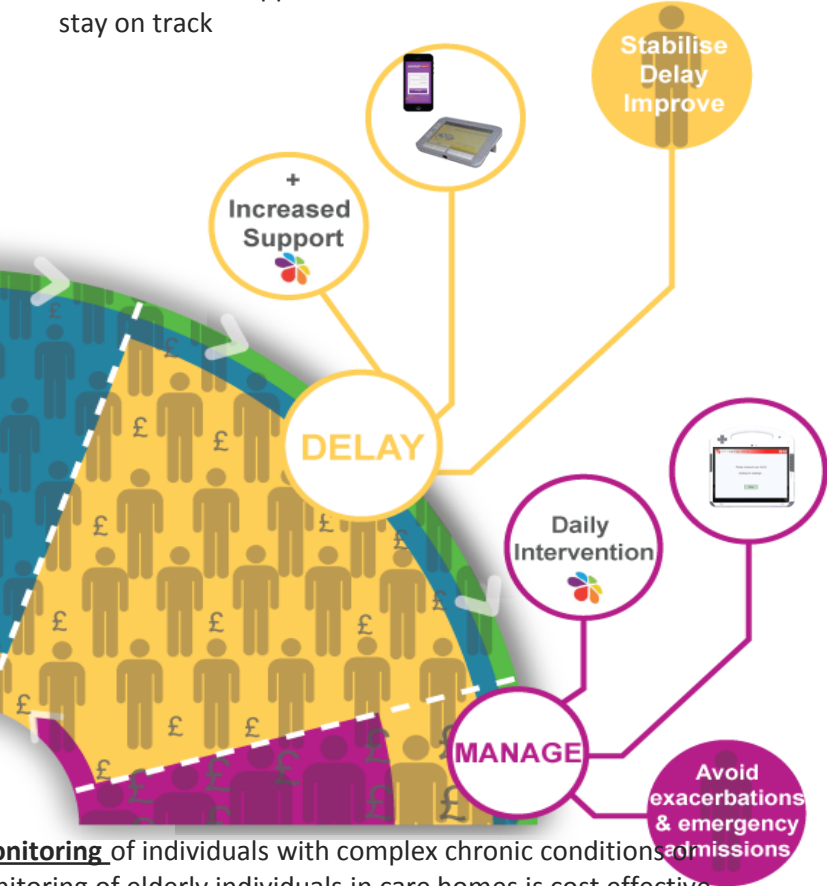
# Active Health Management

**Supported Self-management**

Proactively supporting self-management and focusing on a person's confidence about looking after themselves is - known to have a positive impact on clinical outcomes, maintaining wellness and reducing deterioration



**Mobile monitoring** - gives the clinical team a more timely opportunity to intervene and support an individual to stay on track



**Coaching services** for the "healthy & well" linked to GP services and qualified information sources on health topics

**Remote monitoring** of individuals with complex chronic conditions regular monitoring of elderly individuals in care homes is cost effective, making efficient use of care professionals time & expertise and is shown to reduce hospital admissions and other expensive care interventions



# Opportunities for technology-enabled services for Assisted Living

## Virtual Clinics



Videoconferencing supported by biometrics (e.g. Australia)

## Wearables Integration



Using consumer wearable tech to support health/care (e.g. Europe/US)

## Social Inclusion



Connecting people with social circles/activities (e.g. UK)

## Service Delivery Extension



Using telemonitoring centre as integrated service hub (e.g. Spain)

## Behavioural Trends/Analysis



Building a picture of activity & responding to changes (e.g. US/Aus)

## Supported Discharge



Hospital discharge support – also Hospital@Home (e.g. South America)

## Specialist Need Support



Tailored services supporting specific needs (e.g. UK)

## Apps & Health Tracking



Supporting health and care via smart technology (e.g. UK/Aus)

## Supporting Mobility



Mobile health & care solutions (e.g. US/Europe)

## Service Delivery Management



Information and scheduling for professionals (e.g. Nordics)

**Tunstall**

# Remote patient monitoring and support - emergent technology applications



## GP/Hospital

- Accurate health data collection
- Improved clinical decision-making
- Efficiency through virtual wards
- Ease of referral to remote monitoring
- Integrated care records
- Efficient integrated care delivery



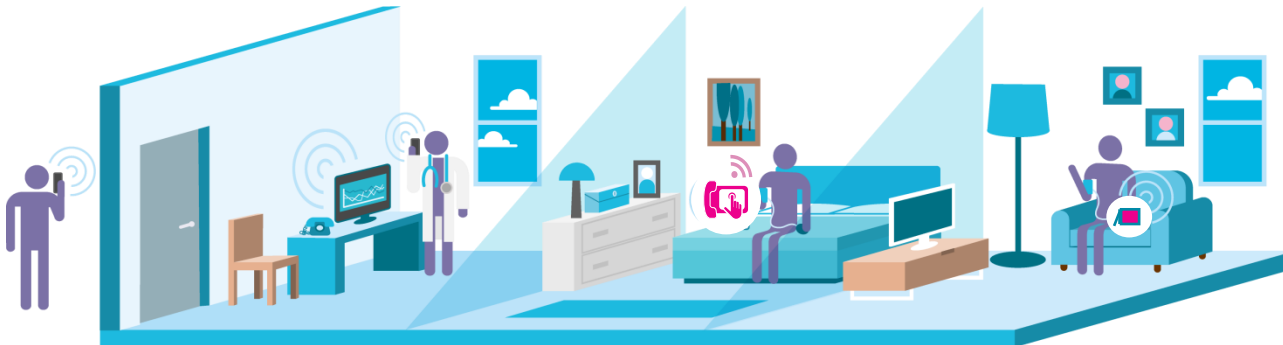
## Community healthcare team

- Health monitoring to prioritise care interventions
- Efficiencies through caseload and visit optimisation
- Accurate health data collection
- Improved clinical decision-making
- Integrated care records
- Proactive care programmes



## Monitoring and Support Centre

- Technical triage of remotely monitored data
- Monitor key indicators and treatment compliance
- Proactive contact with patients to support treatment
- Patient liaison for home visits and hospital appointments
- Integrated care records
- Clinical triage



## Patient and Family

- Reassurance of regular monitoring
- Expert patient
- Improved access to care professionals
- Mobile apps support self-management
- Patient data visible to family carers
- Co-ordinated care delivery
- Self-managed healthcare



## Healthcare Providers and Funders

- Improved Care Quality through alternative care model delivery
- Operational efficiencies - assisted discharge, reduced emergency admissions
- Accurate health data collection
- Data Analytics
- Population Health Management
- Proactive risks stratification to align services with needs
- Efficient integrated care delivery



Patient hub



Monitoring devices



# Independent Living - emergent applications



## Monitoring and response centre

- 24/7 response to alarm sensor activations
- Triage non-emergency events to minimise escalation
- Escalate to emergency services as required
- Proactive health, wellbeing and programme compliance checks
- Analyse behavioural data to alert unusual patterns
- Data driven predictive service delivery



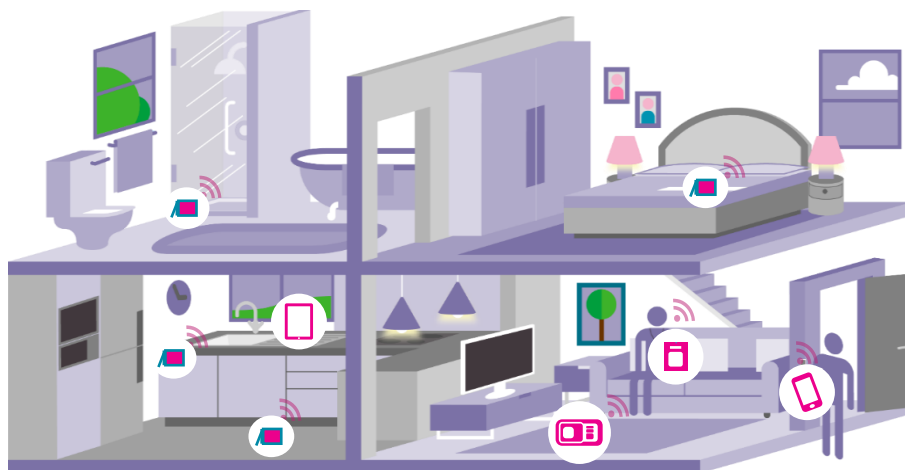
## Family

- Contacted by Centre if user alerts raised
- Alerted for unusual patterns of behaviour
- Check and assist, minimising emergency escalation
- View and assess behavioural data of individual at risk
- Self-management via care networks and portal access



## Home care

- Personal telecare aids care e.g. medication reminders
- Secure door access
- Smart geographic routing
- Visit authentication/billing
- Mobile alarm handling
- Preventative services via behavioural monitoring
- Efficient virtual visits



## Connected person

- Telecare devices minimise risks in-home
- Social inclusion solutions
- Location tracked and calls for help out of home
- Proactive location based services
- Personalised healthcare programme compliance



## Connected Home

- Intelligent use of telecare sensors for risk management
- Personal safety through sensors for falls, fire etc
- Integrated security and door access
- Integrated to smart home control and off-the-shelf products where not life critical components
- Risk-based behavioural monitoring





# Assisted Living - emergent technology applications



## Monitoring and response centre

- 24/7 response to alarm sensor activations
- Triage non-emergency events to minimise escalation
- Escalate to emergency services as required
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- Analyse behavioural data to alert unusual patterns
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## Family

- Contacted by Centre if user alerts raised
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## Scheme manager and carers

- Respond to alarm sensors through wireless communication
- First line assistance & response
- Escalate to emergency services as required
- Remotely monitor residents to limit intrusion
- Intelligent sensors alert unusual behaviour
- Facility operational management tools
- Preventative services via behavioural monitoring
- Efficient virtual visits



## Connected residents

- Telecare devices minimise risks in-home
- Social inclusion solutions
- Vulnerable resident solutions
- Location tracked and help out of home
- Site-wide wireless protection
- Secure video door access
- Health & wellbeing programmes
- Proactive location based services
- Personalised healthcare programme compliance

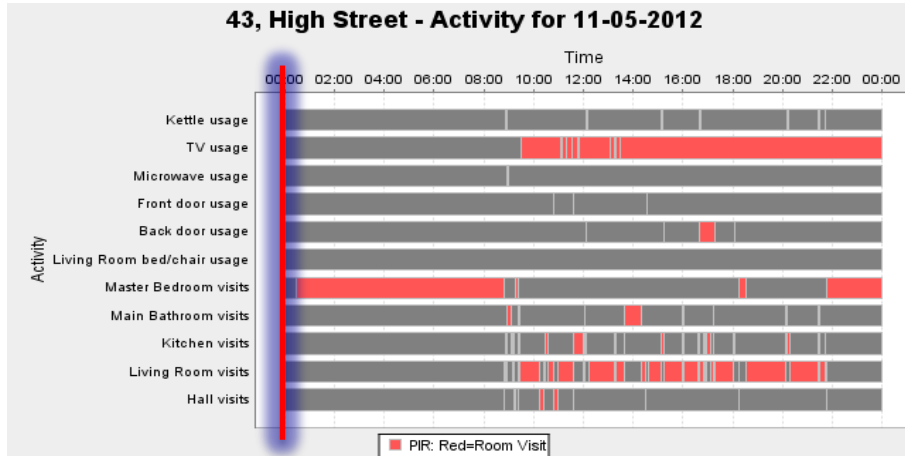


## Connected Home

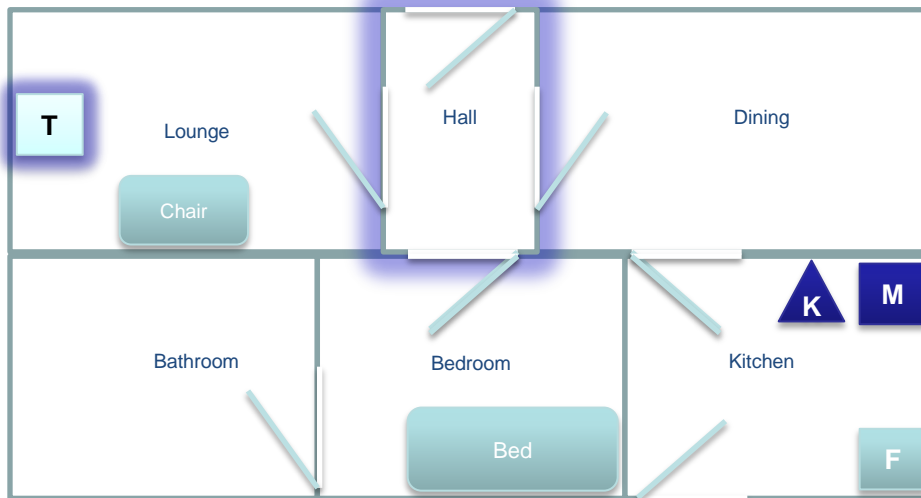
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# Rehabilitation | Lifestyle Monitoring



ADLife



# The Challenge

- Not Technology
- Thinking differently about care processes
- Building the Business Case
- Change and Implementation

# Further Information

- [www.telemonitoringni.info](http://www.telemonitoringni.info)
- [eddie.ritson@hscni.net](mailto:eddie.ritson@hscni.net)