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Technology Enabled Integrated Care in Scotland

Dr Anne Hendry
National Clinical Lead for Integrated Care
Scottish Government

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European Innovation Partnership on Active and Healthy Ageing

2020 Route Map

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EIP AHA Reference Site

Partner in 6 Action Groups

- A1: Adherence & medication *(Pharmaceutical Care)*
- A2: Falls prevention *(National Falls Programme)*
- A3: Frailty *(Acute and Community Focus on Frailty)*
- B3: *Integrated care (ICT enabled integrated care)*
- C2: Independent living *(Living it Up)*
- D4: Smart cities and communities (*Dementia Enabled Communities)*

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ROUTE MAP TO THE 2020 HEALTH AND SOCIAL CARE VISION FOR SCOTLAND

Triple Aim	Quality Ambitions	12 Priority Areas for Improvement
Quality of Care	Person Centered	Person Centered Care
	Safe	Safe Care
	Effective	Primary Care
		Unscheduled and Emergency Care
		Integrated Care
		Care for Multiple and Chronic Illnesses
Health of the Population		Early Years
		Health Inequalities
		Prevention
Value and Sustainability		Workforce
		Innovation
		Efficiency and Productivity

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Telehealth and Telecare Delivery Plan

- **Technology + System Redesign**
- **Empower and support people to have greater choice, control and confidence**
- **Enable safer, more effective and more personalised care**
- **Add value through more flexible use of workforce skill mix, reducing wasteful processes, travel and delays.**

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Pilot A - Large Scale

United4Health

- 34 European partner organisations
- NHS 24 appointed lead partner in Europe - 5 M euro
  - 7 partnership areas (Lanarkshire/Renfrew/Ayrshire); 3 Health Boards

Project Aim: to evaluate and deploy services for people living with long term conditions in home settings on a large scale.

The service models validated in Renewing Health (www.renewinghealth.eu)

- Life-long management of diabetes
- Short term follow-up after hospital discharge for COPD patients
- Remote monitoring of heart failure

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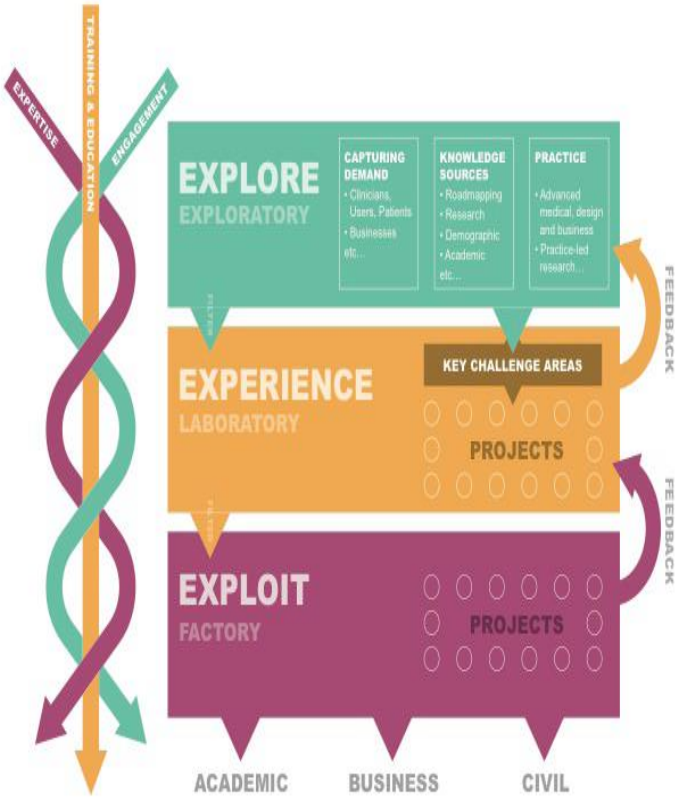
Digital Health Institute



Triple Win

- Quality of Life
- Sustainability
- Economic Impact

Collaboration between NHS, Local Government, SMEs, Academics, Patients and carer organisations

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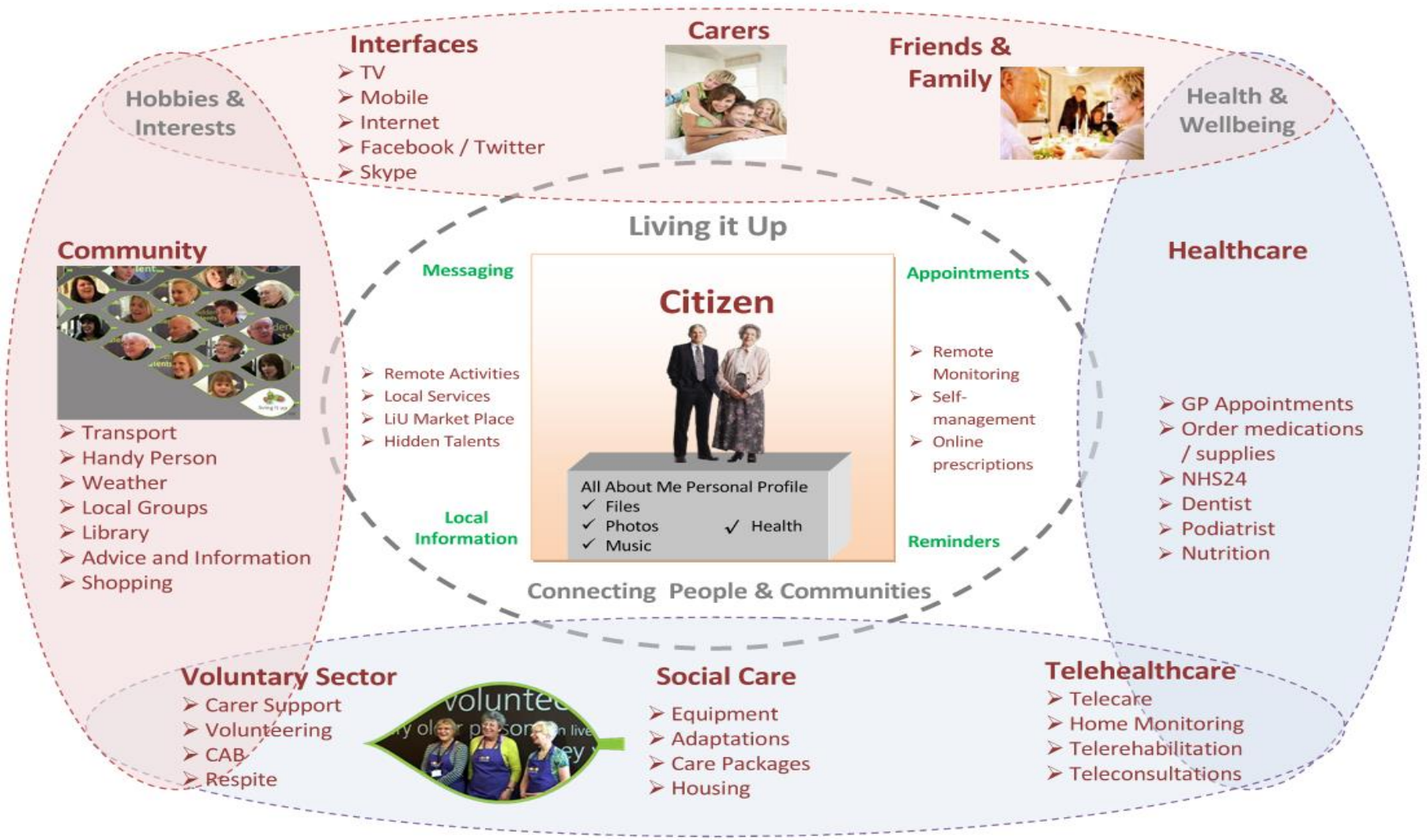
Living it up

Feeling happy, healthy and safe



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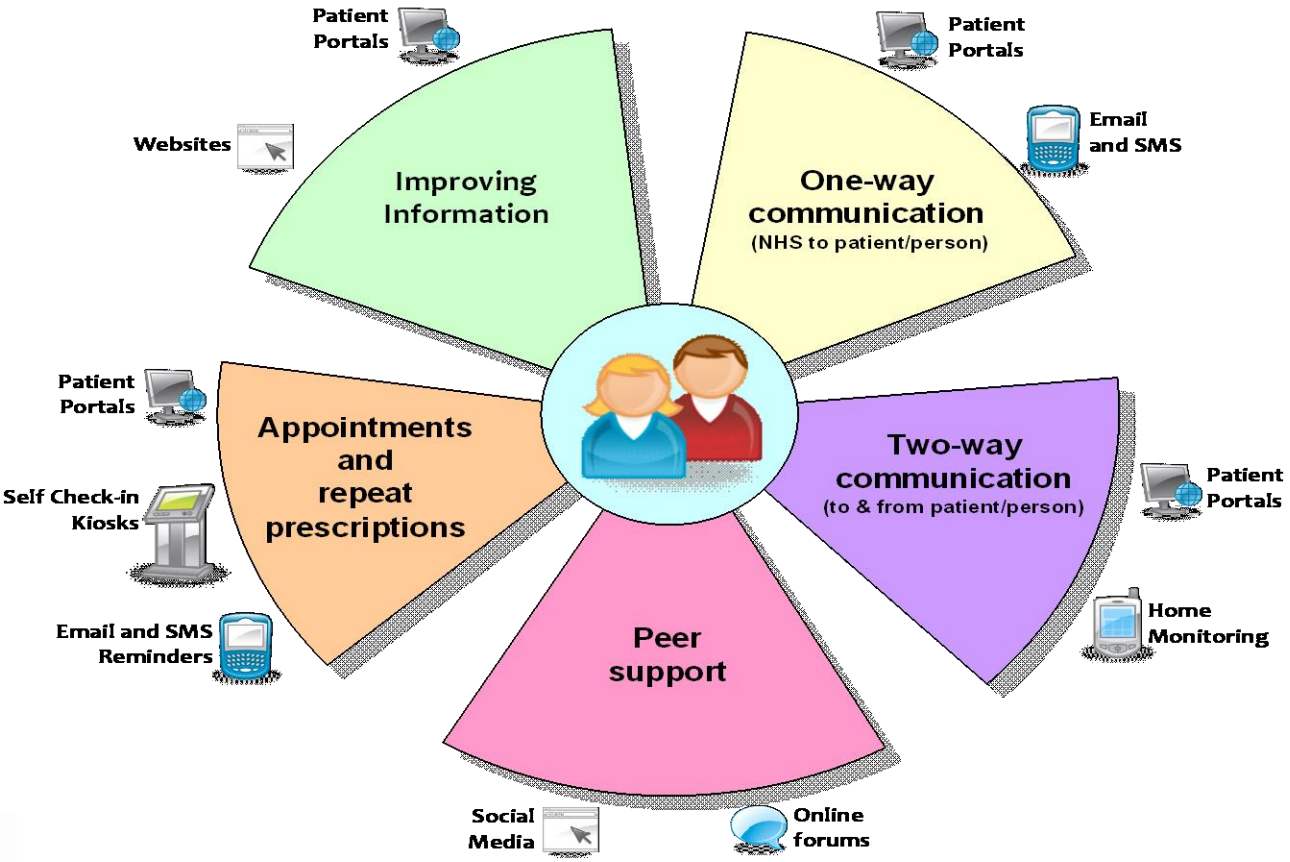
Person Centred ehealth strategy



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Six Strategic Priorities

- Efficiency and value
- Patient empowerment
- Information sharing between professionals
- Integrated chronic care
- Medicines safety and adherence
- Timely decision support and data for performance improvement

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Engagement and Coproduction

- Online Public Survey
- GP Survey
- Targeted focus groups:
- Thistle Foundation
- Deaf Action
- Long Term Conditions Alliance Scotland
- Local involvement in specific projects
- Closing the Loop – medicines information
- iHub – LTC clinical information

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Priorities

- Portal Technology to integrate exisitng systems
- Emergency Care Summary & Key Information Summary
- Text, email or telephone reminders for appointments
- Telehealth/telecare services
- Self check-in kiosks
- Electronic appointment booking (online/ digital TV)
- Electronic prescription requests (online or digital TV)
- Improved web site information
- Electronic patient feedback
- Access to test results
- Online/email communications (with GPs)
- Smart phones patient apps

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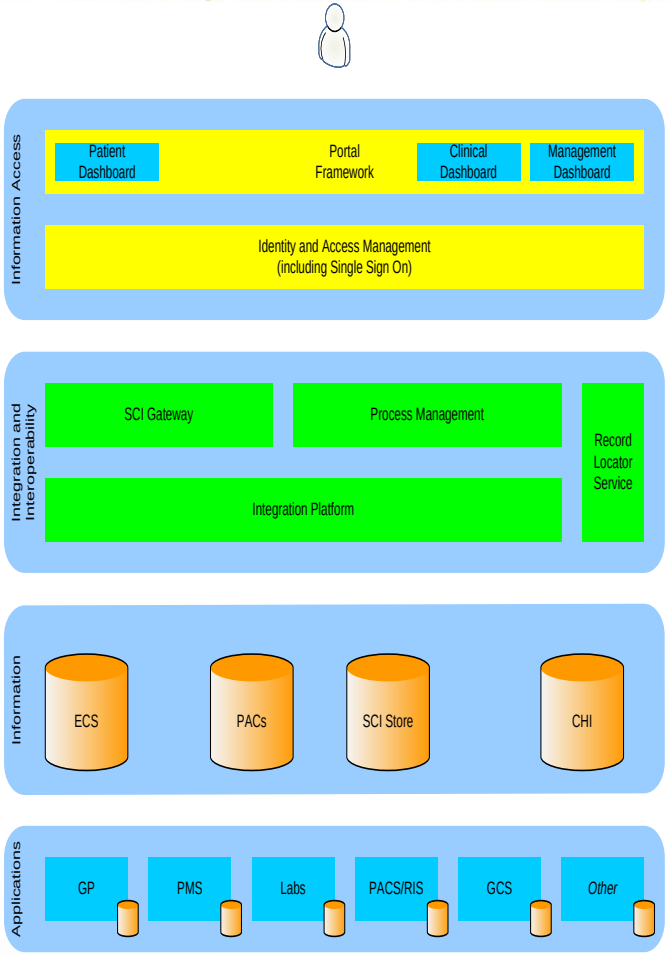

- **Portal** displays information from multiple sources in single screen
- **Clinical dashboard** for clinicians
- **Management dashboard** for managers
- **Patient portal** for some specialties – eg renal patient view; My Diabetes My Way
- **Single-Sign-On**
- **Integration and Interoperability** secure SCI Gateway for referrals
- **Integration Platform** for messaging
- **Record Locator Service**
- **Information SCI Store** EPR repository
- **ECS** information for emergency care.
- **CHI** single source of patient demographics
- **PACS** repository of images
- **Applications –** eg PMS, GP & Lab systems use these national components.

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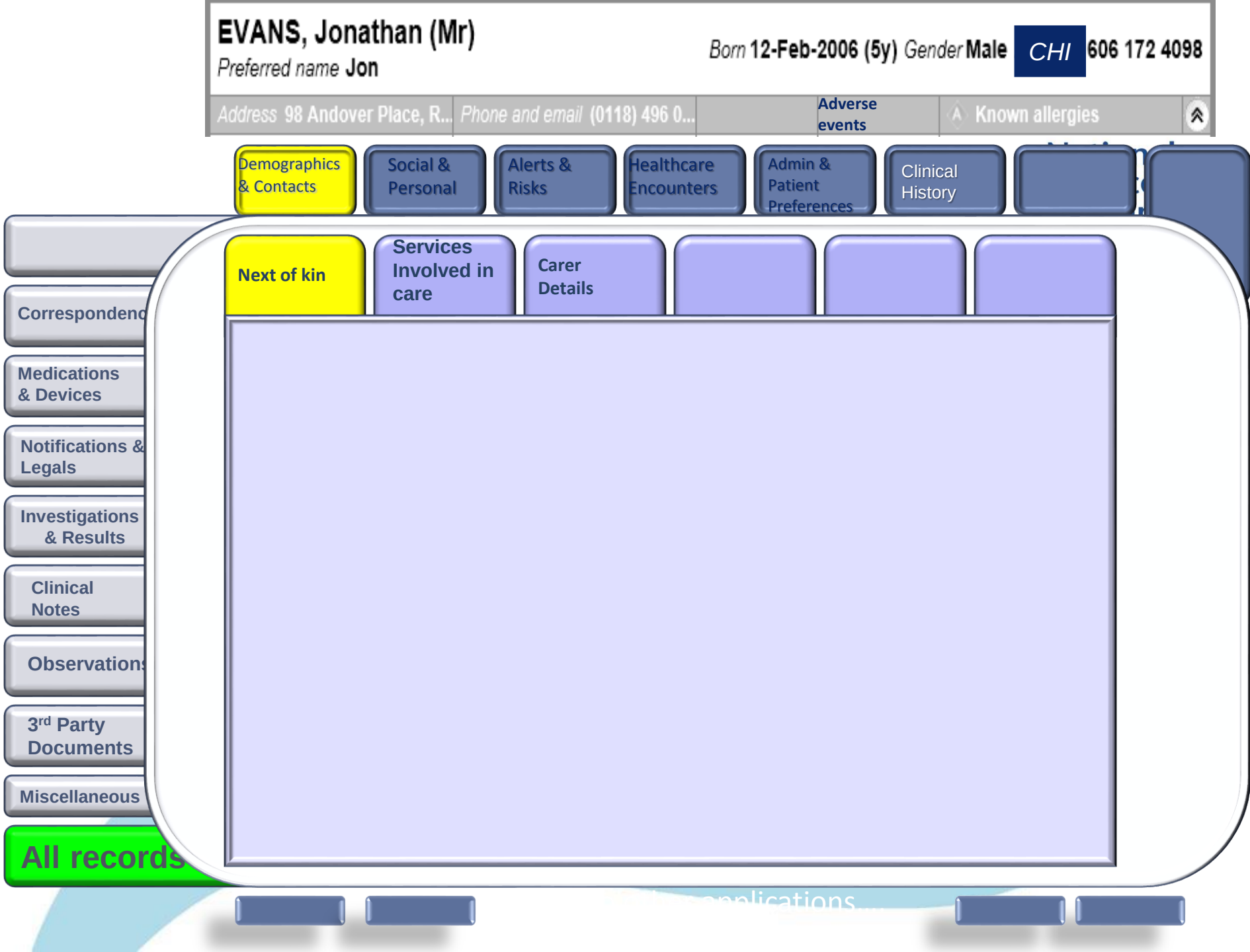
EVANS, Jonathan (Mr)
Preferred name Jon
Born 12-Feb-2006 (5y) Gender Male
CHI
606 172 4098
Address 98 Andover Place, R...
Phone and email (0118) 496 0...
Adverse events
Known allergies
Demographics & Contacts
Social & Personal
Alerts & Risks
Healthcare Encounters
Admin & Patient Preferences
Clinical History
Next of kin
Services Involved in care
Carer Details
Correspondenc
Medications & Devices
Notifications & Legals
Investigations & Results
Clinical Notes
Observations
3rd Party Documents
Miscellaneous
All records

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Key enabler for 7 Outcomes for Integrated Care

- Healthier living
- Independent living
- Positive experiences and outcomes
- Carers are supported
- Services are safe
- Engaged workforce
- Effective resource use

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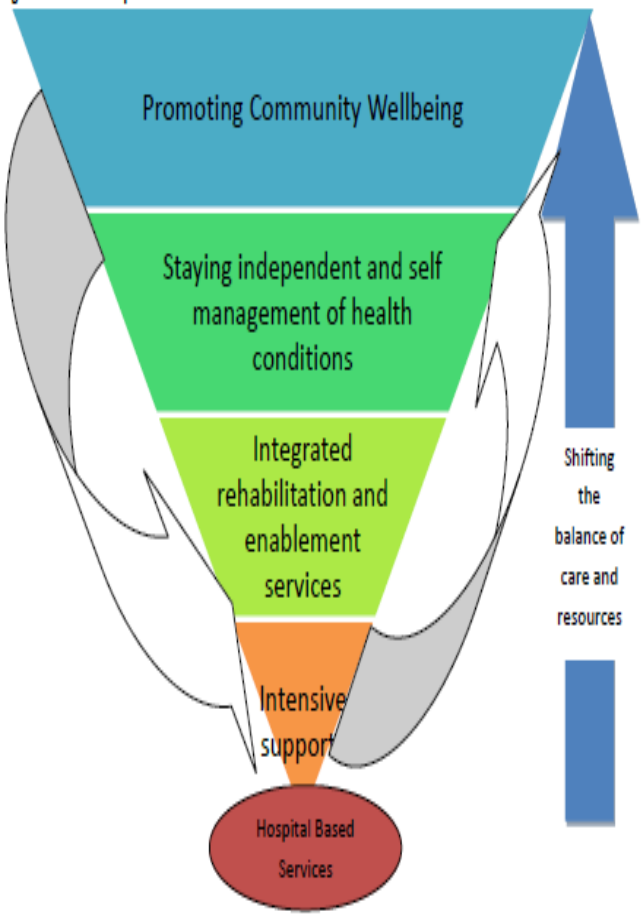
Figure 2 Reshaping Care for Older People Model



Reshaping Care for Older People

- 10 Year Programme to 2021
- £ 300 million Change Fund to 2015

- 32 Partnerships between
  NHS: primary, acute, mental health
  Local Authority social care & housing
  Third and Independent sectors
  Older people and carers

- Joint Strategic Commissioning Plans

- Multi-sector Improvement Network
- Adapted breakthrough collaborative

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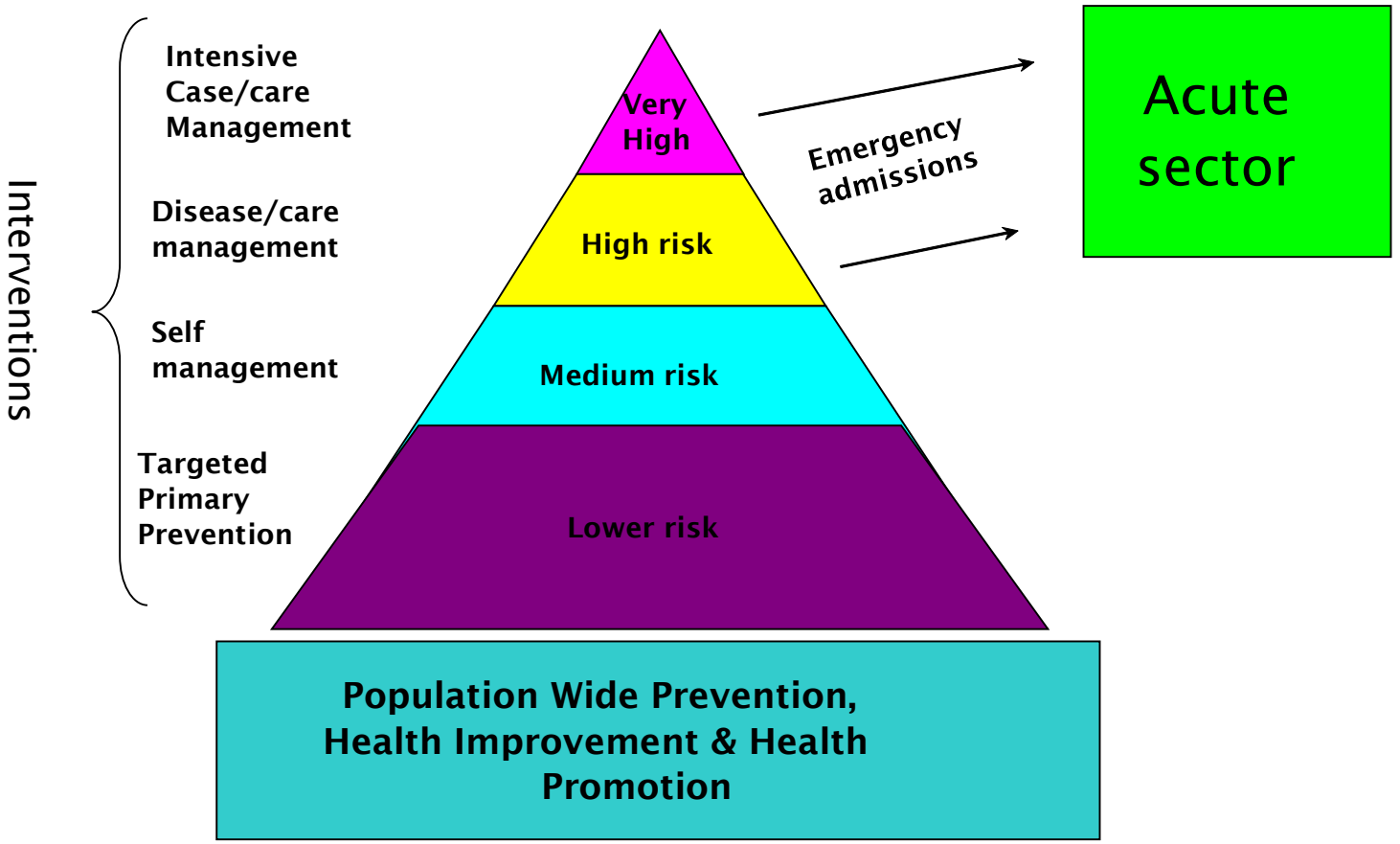
Preventative and Anticipatory Care	Proactive Care and Support at Home	Effective Care at Times of Transition	Hospital and Care Home(s)
Build social networks and opportunities for participation.	Responsive flexible, self-directed home care.	Reablement & Rehabilitation.	Urgent triage to identify frail older people.
Early diagnosis of dementia.	Integrated Case/Care Management.	Specialist clinical advice for community teams.	Early assessment and rehab in the appropriate specialist unit.
Prevention of Falls and Fractures.	Carer Support.	NHS24, SAS and Out of Hours access ACPs.	Prevention and treatment of delirium.
Information & Support for Self Management & self directed support.	Rapid access to equipment.	Range of Intermediate Care alternatives to emergency admission.	Effective and timely discharge home or transfer to intermediate care.
Prediction of risk of recurrent admissions.	Timely adaptations, including housing adaptations.	Responsive and flexible palliative care.	Medicine reconciliation and reviews.
Anticipatory Care Planning.	Telehealthcare.	Medicines Management.	Specialist clinical support for care homes.
Suitable, and varied, housing and housing support.		Access to range of housing options.	Carers as equal Partners.
Support for carers.		Support for carers.	

Enablers
Outcomes focussed assessment
Co-production
Technology/eHealth/Data Sharing
Workforce Development/Skill Mix/Integrated Working
Organisation Development and Improvement Support
Information and Evaluation
Commissioning and Integration Resource Framework

National Risk Stratification Tool



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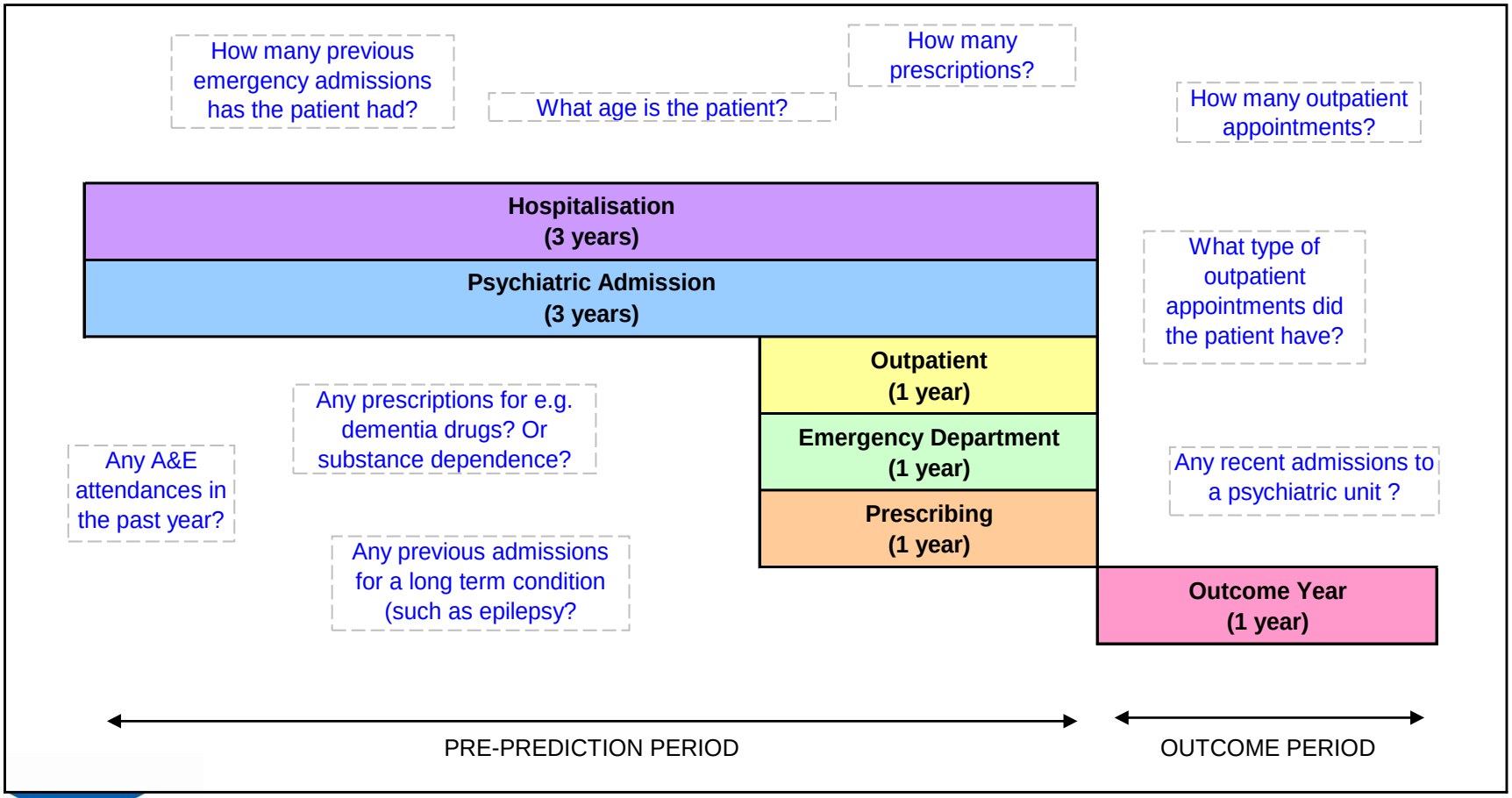
SPARRA Tool



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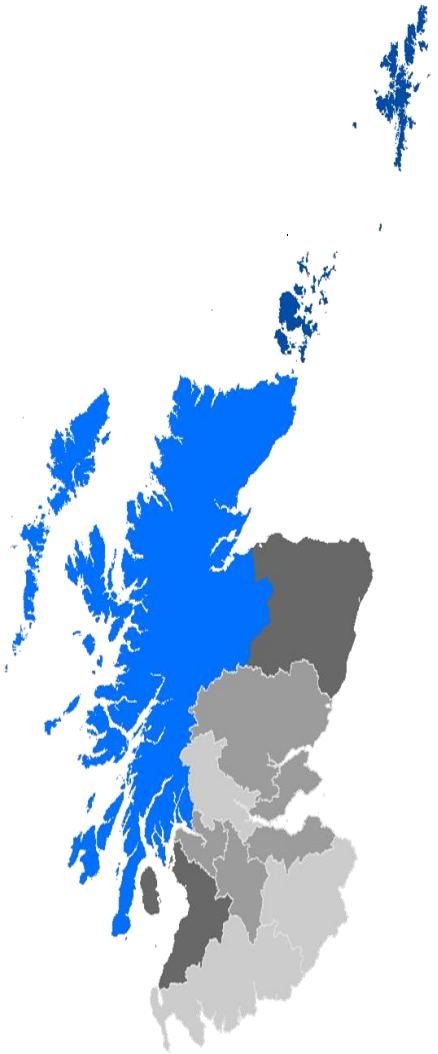
GP Contract Quality Points

- 41 additional ACP reviews per average GP practice in 2013/14
- Rising to 81 in 2014/2015
- 83,000 additional ACPs by 2015



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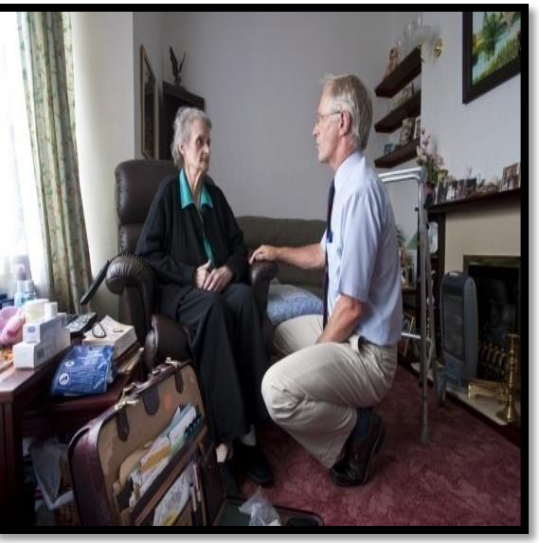

Electronic Key Information Summary

ePCS
(electronic Palliative Care Summary)
- End of Life Care Plan

KIS and ePCS
- Alerts
- Medical History
- Patient Wishes
- Resuscitation

KIS
(Key Information Summary)
- Anticipatory Care Plans
- Self Management Plans
- Mental Health Plans

ECS
(Emergency Care Summary)
- Medications
- Allergies
- Demographics

KIS Information Flow

Patient and GP Consultation

GP Practice

Secure, encrypted Patient Information sent

Key Information Summary (KIS)

ECS Store

Secure Login

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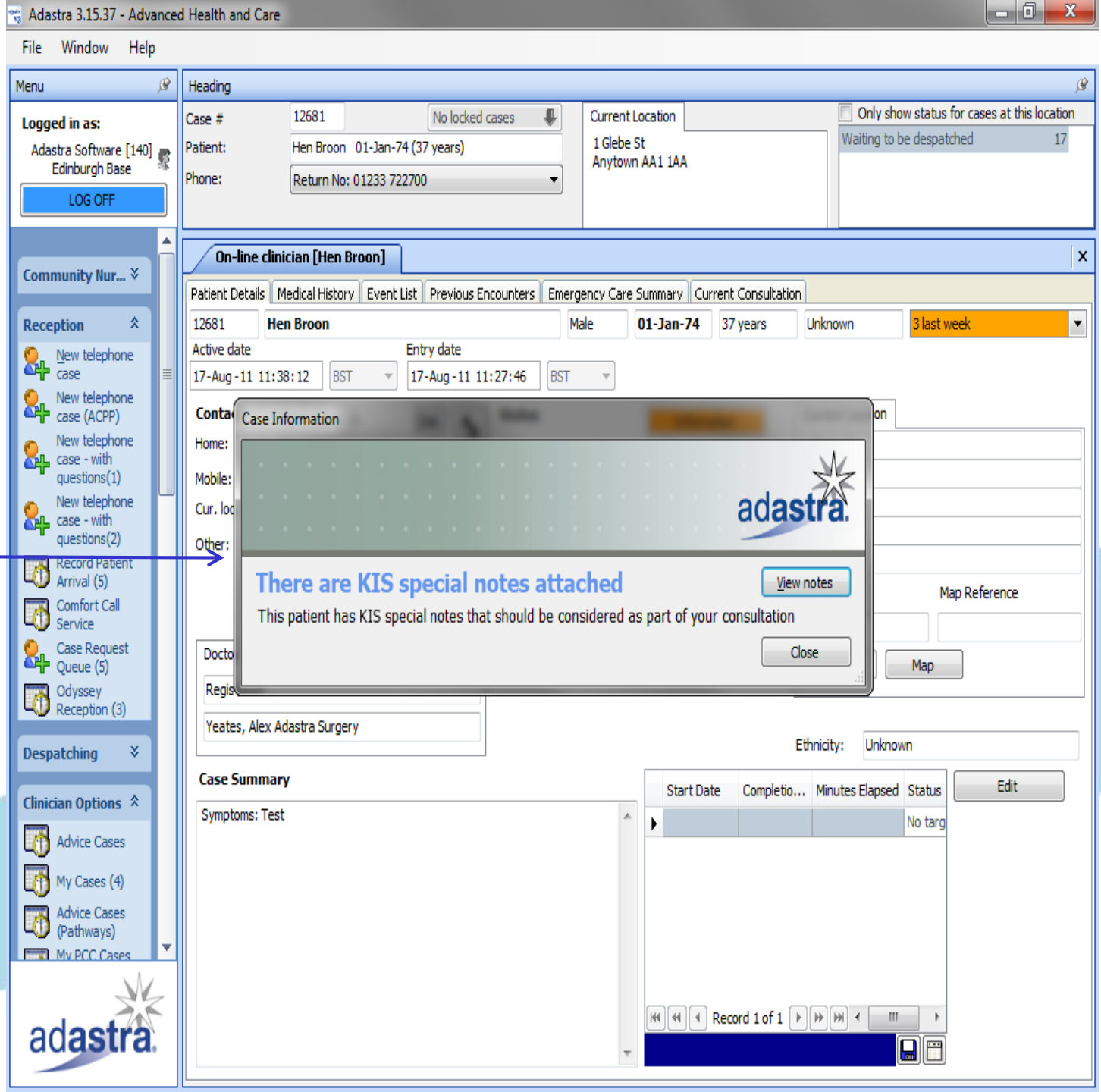
Accident and Emergency

Hospital Pharmacy

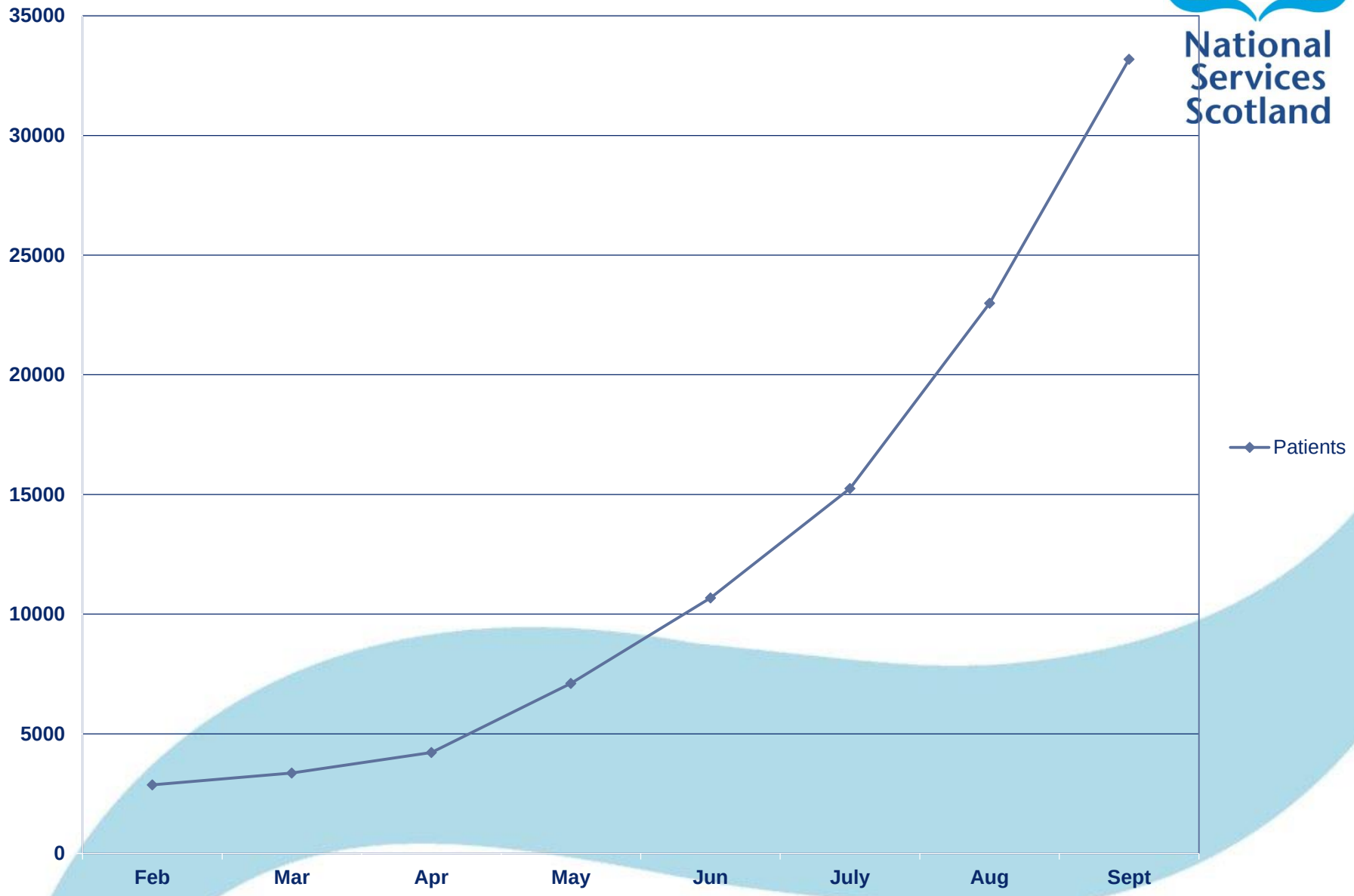
Scottish Ambulance Service

Out of Hours

On opening the record a warning appears to alert the clinician



Total KIS Patients



Feedback from patients

Very happy to share this information with relevant others

Excellent idea

Would not want some sensitive information from medical notes shared with others

No problem as long as information is 'secure'

Gives confidence when GP surgery closed

Surprised that this was not happening already

What GPs liked

Excellent for sharing info with relevant others

Good breadth of information

Ability to add descriptive text

Structured, concise and easy to fill in

Easy to use and navigate

Good design and workflow

NHS National Services Scotland

Users in A&E

Information is clear and concise

Good that it is not just for palliative care

Anticipatory care information particularly useful

This information could dramatically improve the care we provide

Would be good if we could also write to KIS rather than read-only

Some of the KISs in pilot were of limited quality

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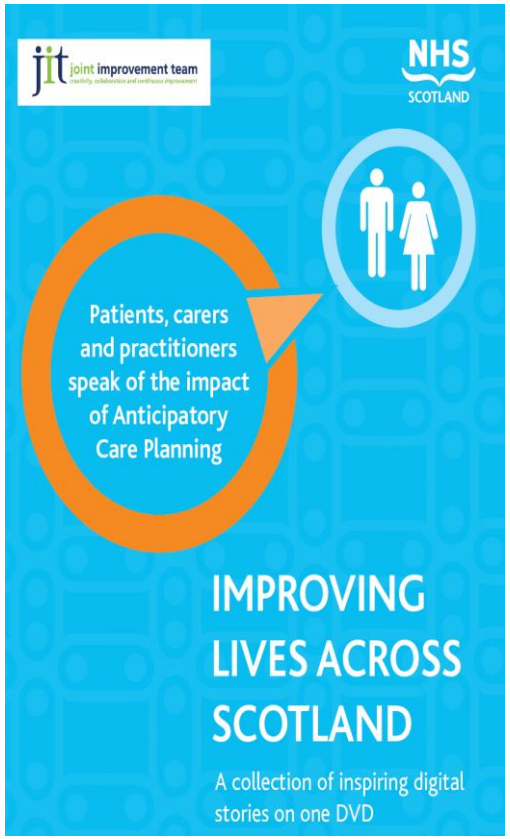

10 Anticipatory Care Interventions

Targeted and tailored to the individual

- Self management advice and support including for dementia
- Polypharmacy reviews of safety, efficacy and adherence
- 'Thinking Ahead' Anticipatory Care Plans electronically shared
- Physical activity, falls prevention and management
- Identification and support for carers
- Coordinated case management for complex support
- Reablement and 'step up / step down' Intermediate Care
- Comprehensive Geriatric Assessment for frail older people
- Telehealth and Telecare
- Equipment and adaptations

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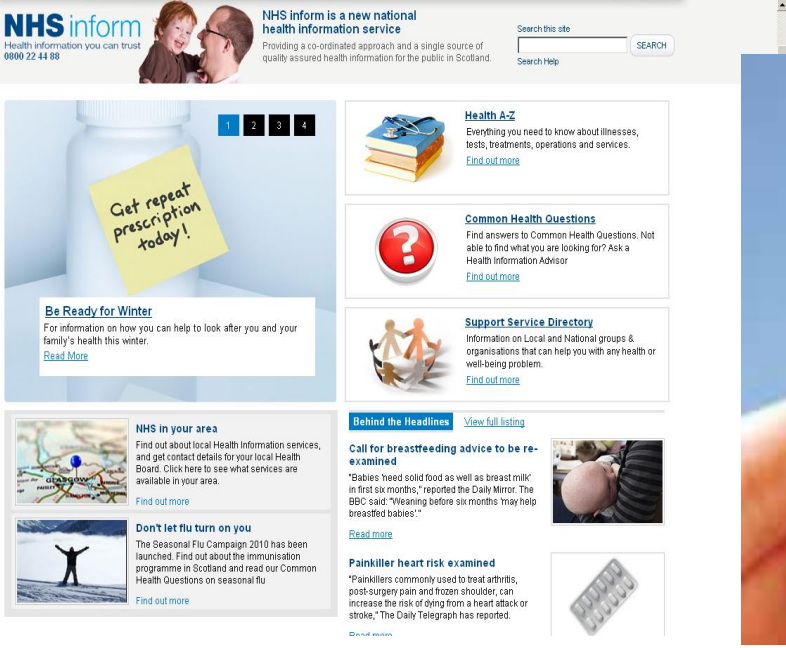

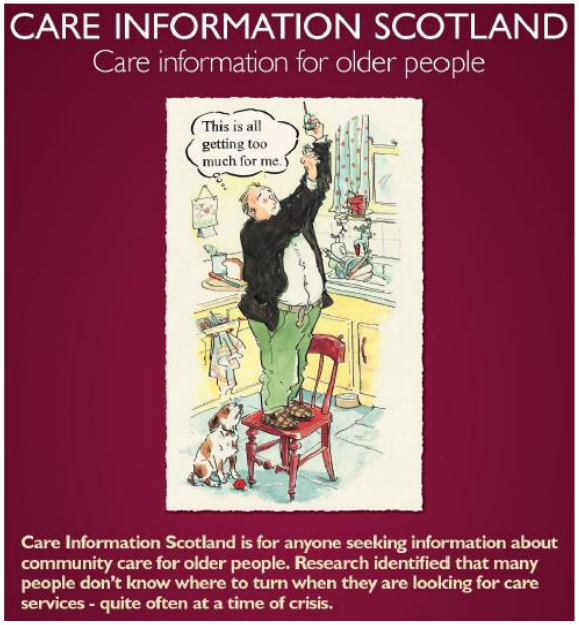

Information to support Self Management and Adherence

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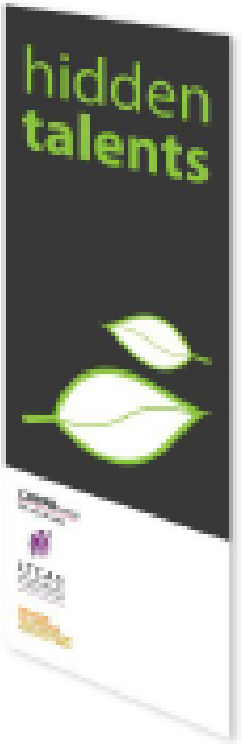
What keeps you Well?

centres
cafes
walks
groups
parks
schools
views
choirs
classes
churches
gardens
cycling
dancing



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ALISS

A Local Information System for Scotland

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ALLIANCE
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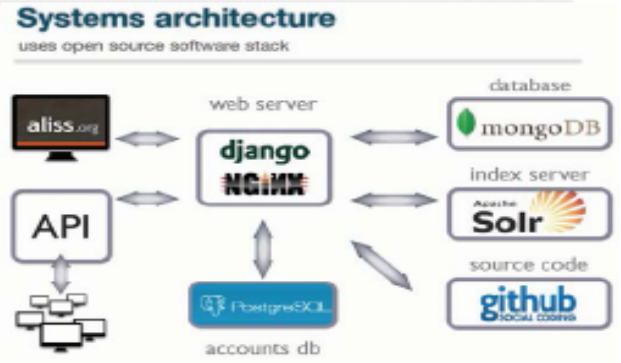
people at the centre

We FLOSS!

- We can integrate with any system to share data
- We are not reliant on large private sector providers to develop, make changes, fixes etc.



So What?

- Significantly less cost (development, licensing (none), change, support)
- Reduced development and change cycle timescales
- Supports health / social care integration and is accessible to all
- Open / Big data – contributes to geospatial picture of Scotland

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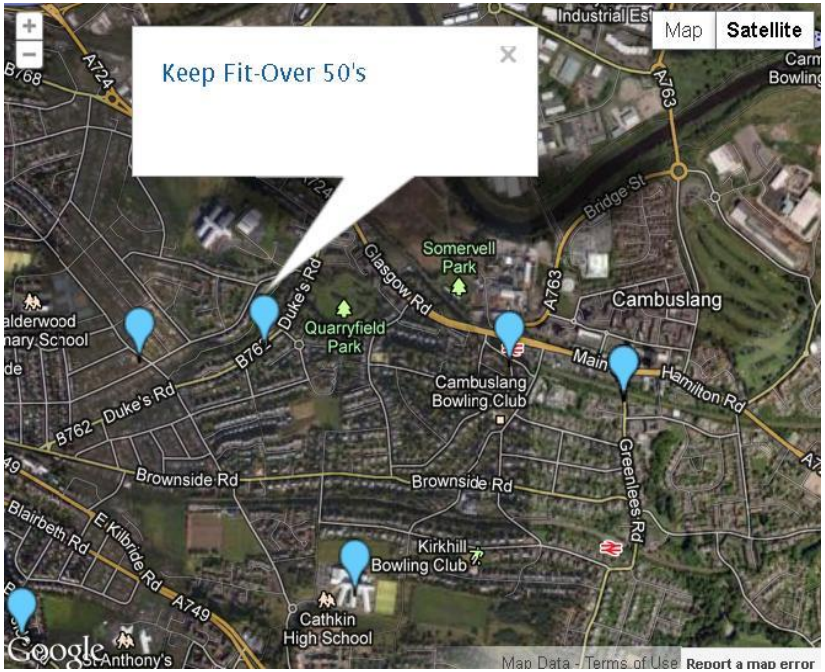
Locator Tool



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Technology enabled peer support, self management and rehabilitation

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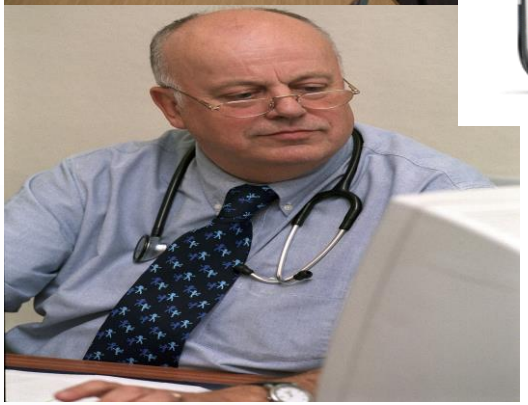
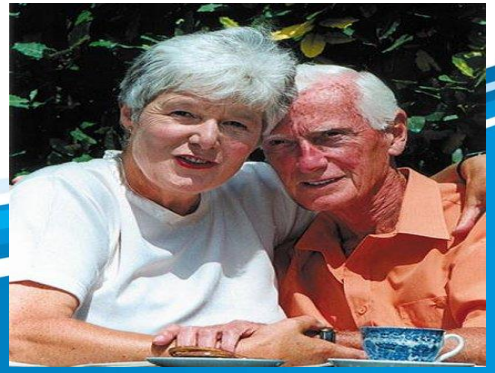
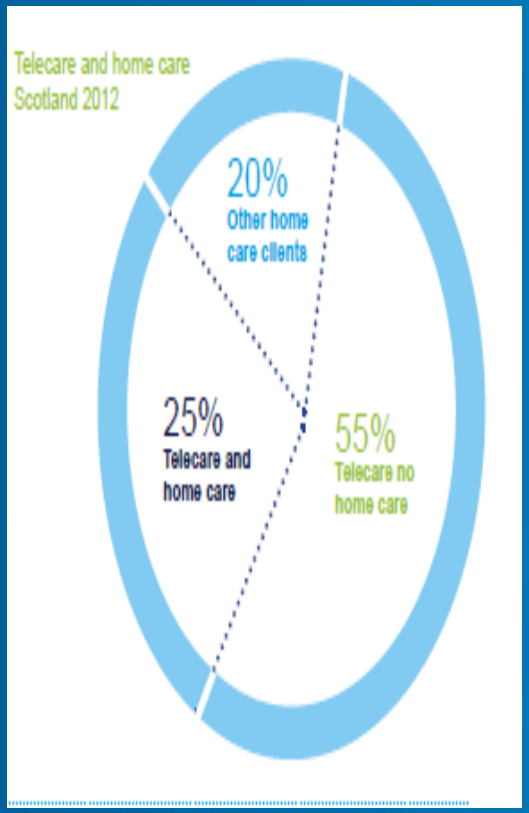
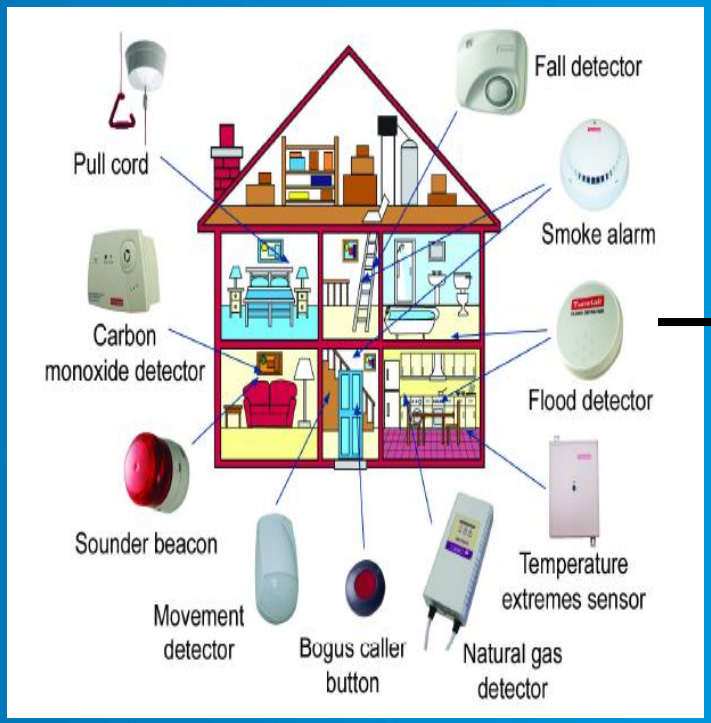
Technology Enabled Integrated Community Team

Telecare







Mobile Telecare

Wrist care

Locator

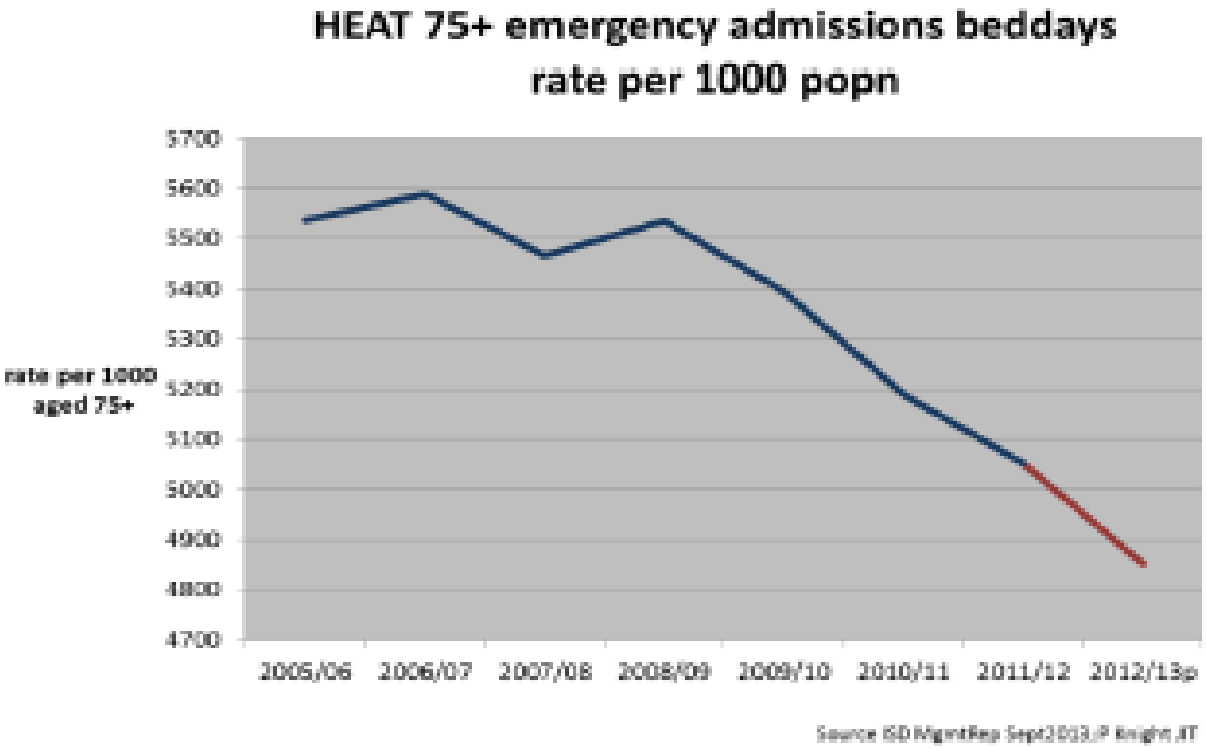
Wayfinder

Epilepsy sensor

Medication Reminder

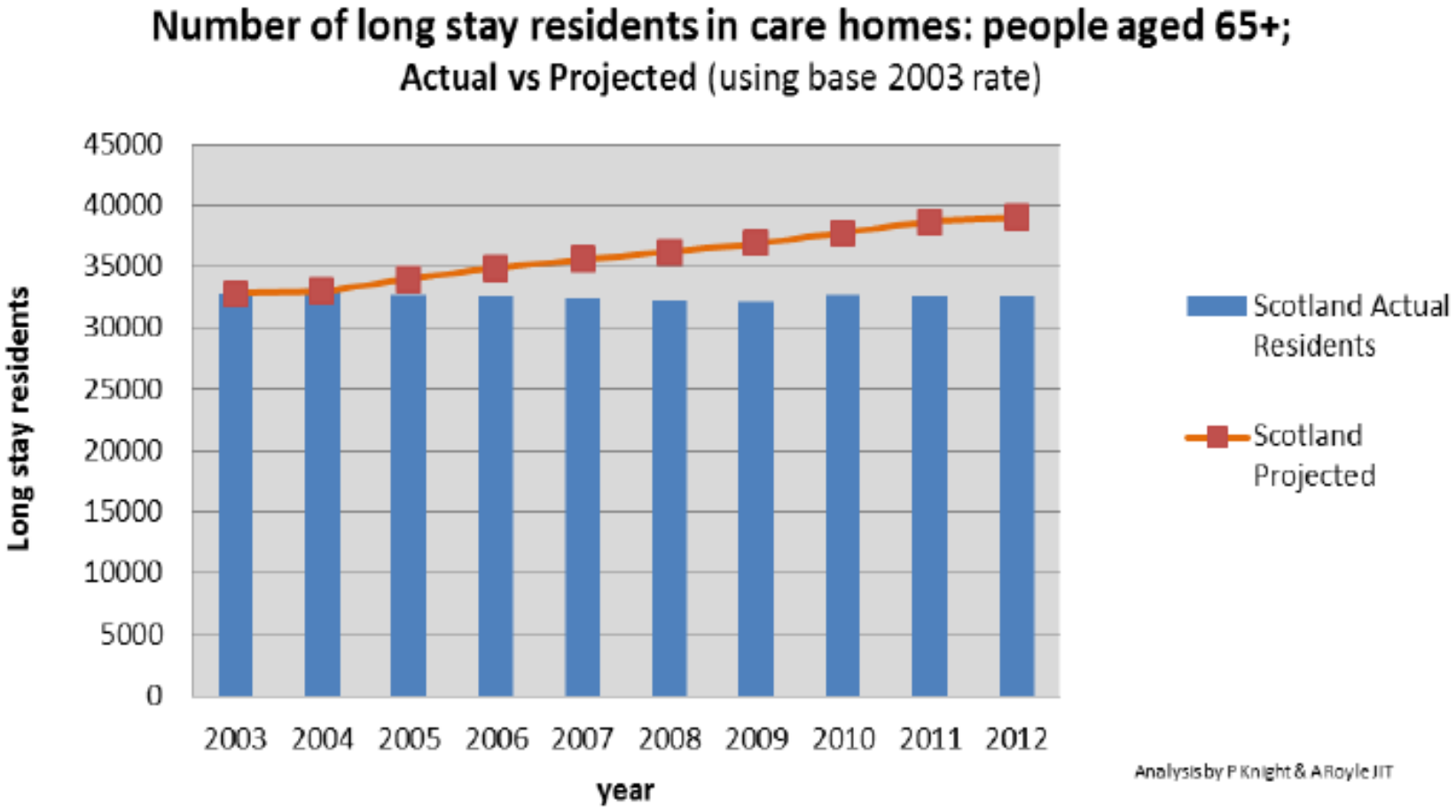
Remote Decision Support and Telethrombolysis

Reduction in emergency bed days

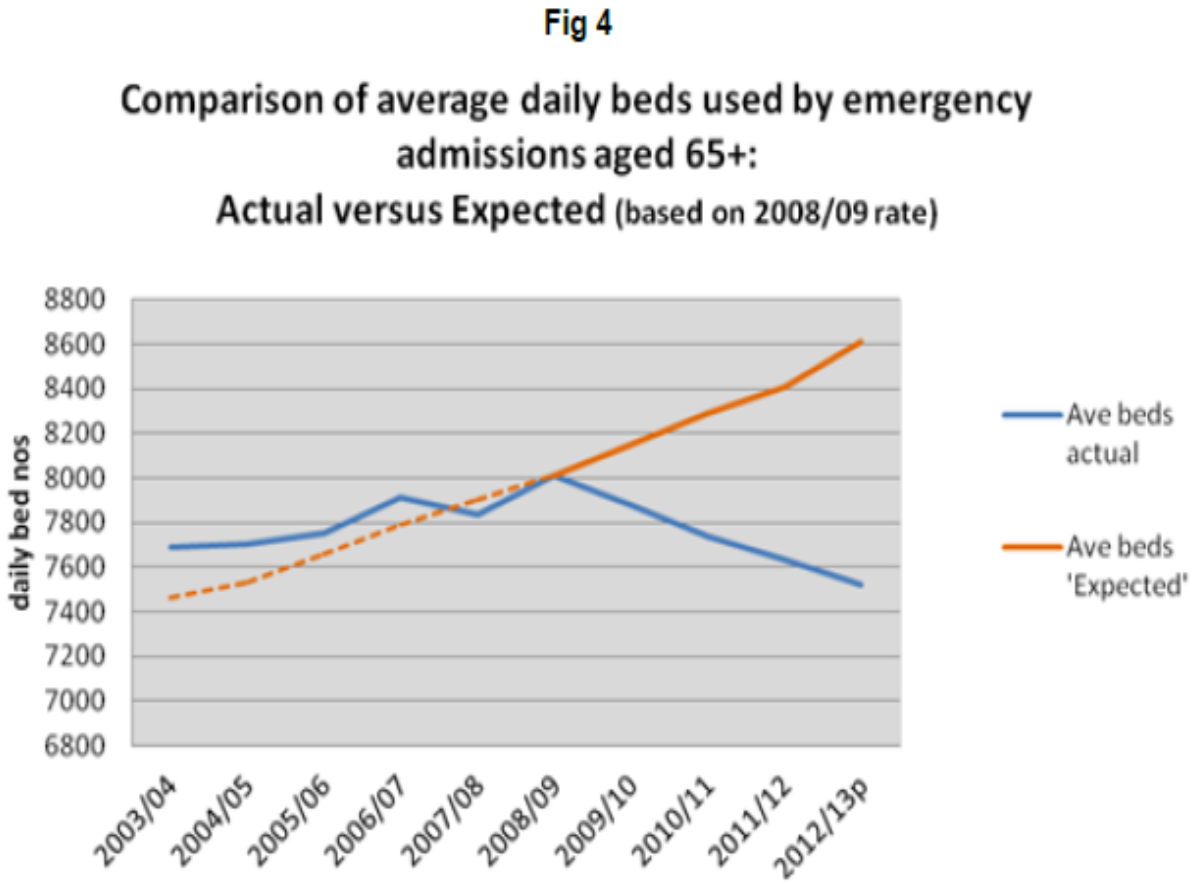


Around 350 fewer emergency beds occupied by older people than in 2009/10 despite growth in population

And more older people live at home



What if…. we hadn't Reshaped Care?



We would be using on average an additional 1000 beds for over 65s