

Contract No. 250505

inCASA

Integrated Network for Completely Assisted Senior citizen's Autonomy

ICT Policy Support Programme

Call 3 objective 1.3 ICT for ageing well / independent living

Project start date: 1st April 2010

Duration: 30 months

Coordinating partner: SANTER REPLY Spa

Published by the inCASA Consortium

Project co-funded by the European Commission
within the CIP ICT-PSP Programme



- To investigate populations that could be described as frail or in need.
- Implement integrated services and tools to support independent living.
- To measure effect on patient quality of life, clinical and social outcomes, professional perception, organisation, safety.....

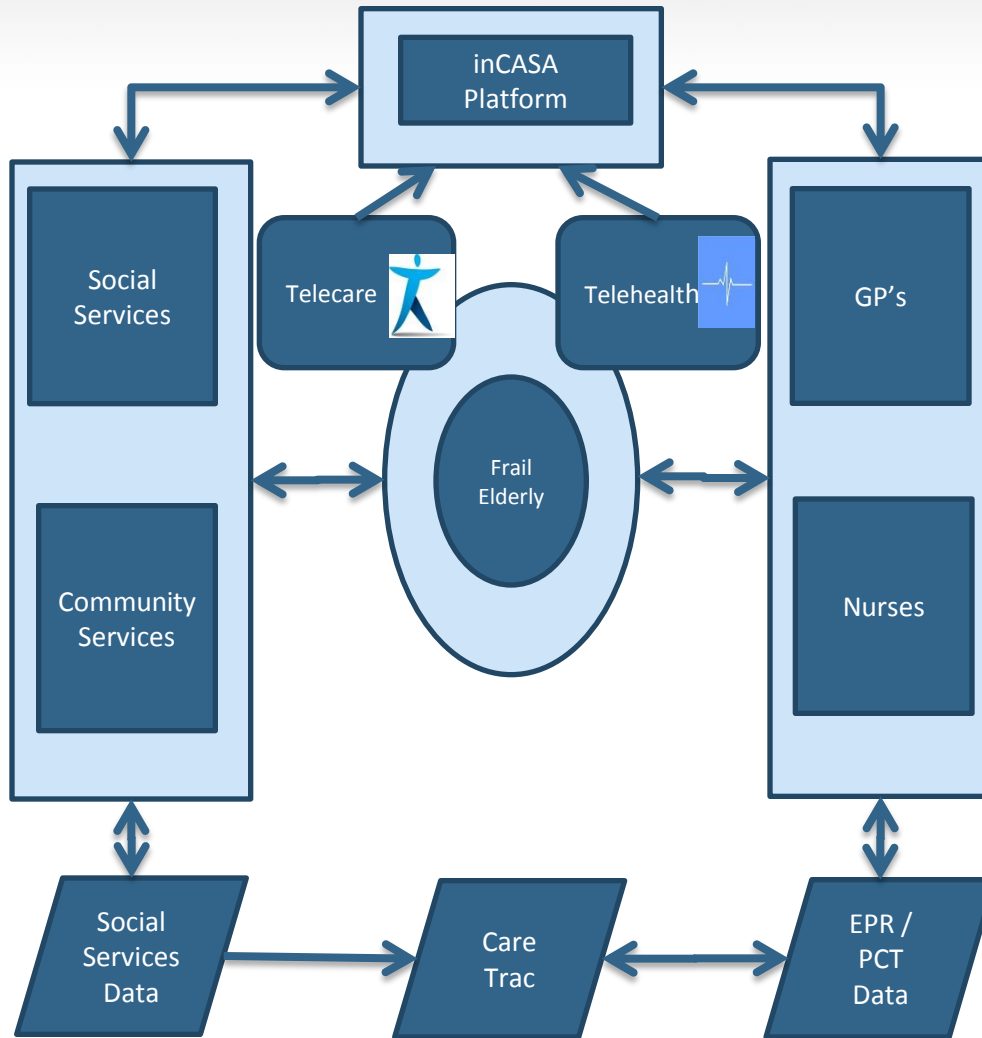
Pilot	Patient Profile	Service	Tools
INSERM (France)	Cancer Patients	Hospital / Social Services	Health Monitoring and Activity Monitoring
KGHNI (Greece)	Chronic Heart Failure Patients	Hospital Cardiology Department / Other Hospital Services	Health Monitoring and Environmental Sensors
FHC (Spain)	COPD Patients	Hospital / Social Services	Health Monitoring and activity training
CHC (UK)	Elderly Patients living alone	Primary Care / Social Services	Health Monitoring and Activity Monitoring
ATC (Italy)	Social Housing Users	Social Housing Authority / GP's	Health Monitoring and Environmental Sensors

- 200 patients
- Pre-Pilot and Pilot Phase
- Implement service and technical integration
- Collect data for up to 6 months
- Mast Methodology

The Chorleywood pilot aims to develop an integrated service delivery model that will combine health and social care in responding to the needs of frail older people with long term conditions.

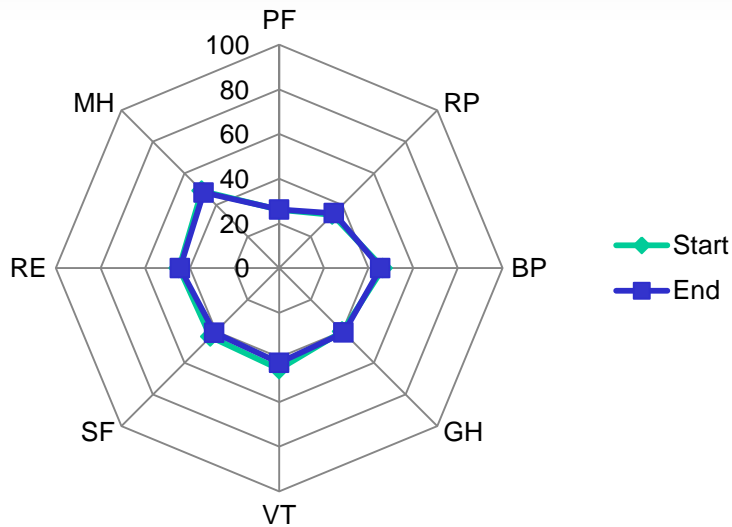
- Build the integrated health and social service to deal with the data from both remote patient monitoring and environmental monitoring.
- Evaluate the value of the integrated service to both the frail elderly person and the social and clinical services that care for that person.
- Understand and measure the impact of such a service to a patient's quality of life

- 44 patients recruited / 36 completed a min of 30 days
- Mean age of those enrolled was 82
- 38% were male
- Main reason for decline:
 - did not want to,
 - Too intrusive
 - Did not feel was suitable
- Main reason for not completing
 - Changed mind during installation – too much or felt unsuitable
 - Poor Signal Strength – so unable to be monitored
 - Died prior to installation
- Frailty Score - Edmonton
 - 56% were of average frailty or above
 - 27% were very frail



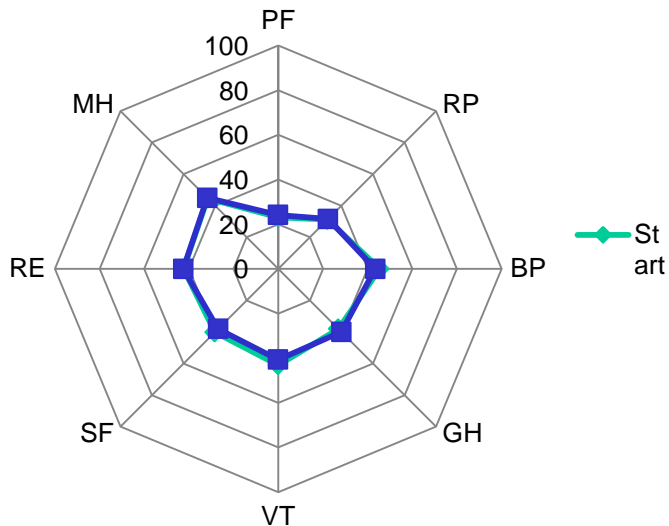
- Patient identified using registers
- Enrolment carried out by clinician
- Installations are undertaken by nurses
- Data reviewed by nurses Mon to Fri – 3 days
- Interventions are conducted by Nurse and GP
- Referrals to social services entered on clinical / social care portal
- Social Services carried out intervention when necessary
- 1st line technical triage performed by clinicians
- Technical Support is provided by Brunel University

SF36 v2 All Patients



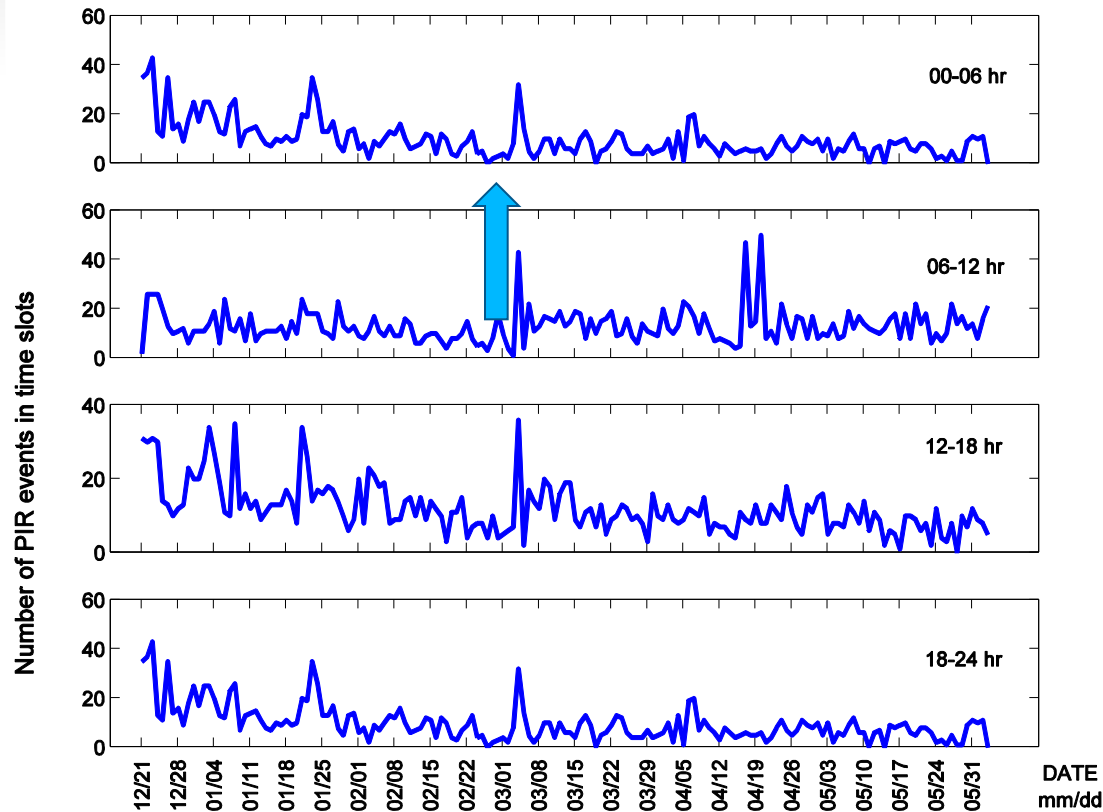
- Low PF Score
- No overall improvement in QOL for all patients
- Average Frailty or above indicated a slight improvement in QOL
- No Significant decline in QOL

SF36 v2 Average Frailty or above



- Average duration of monitoring was 122 days
- 55% were referred to an intervention and 44% received a change in treatment
- 70% of those who scored average frailty or over had an intervention

PIR Motion Activity – Patient 1 - Intervention



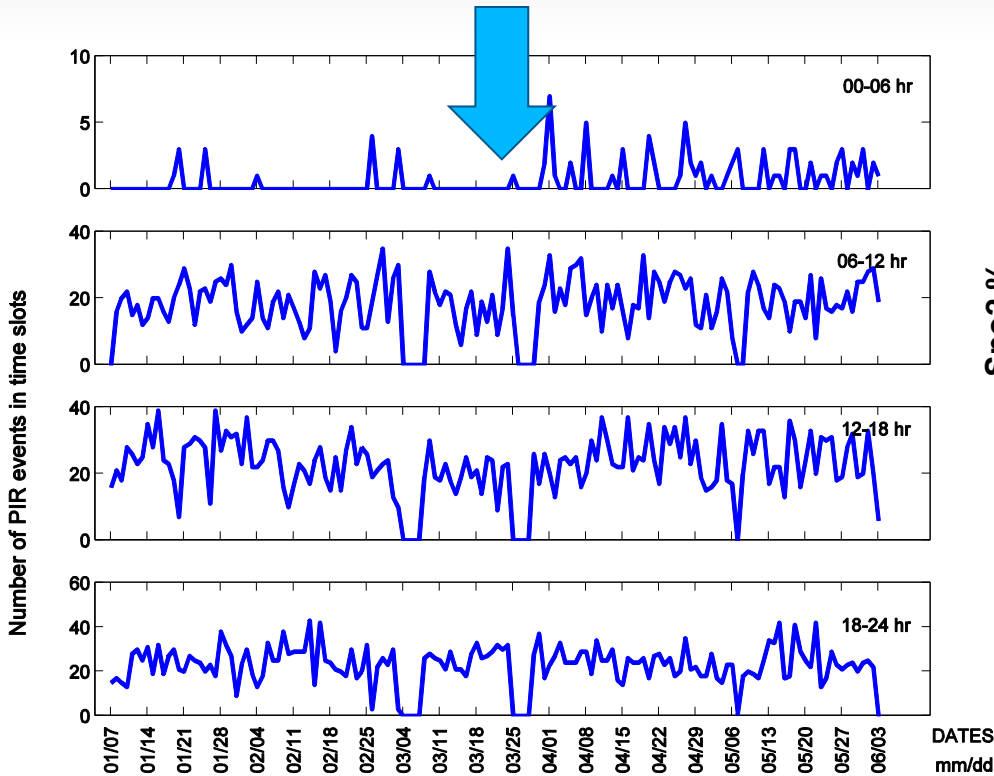
Under activity alert 2-3 March in all time slots, patient contacted and found to have fallen

Patient visited 3rd March

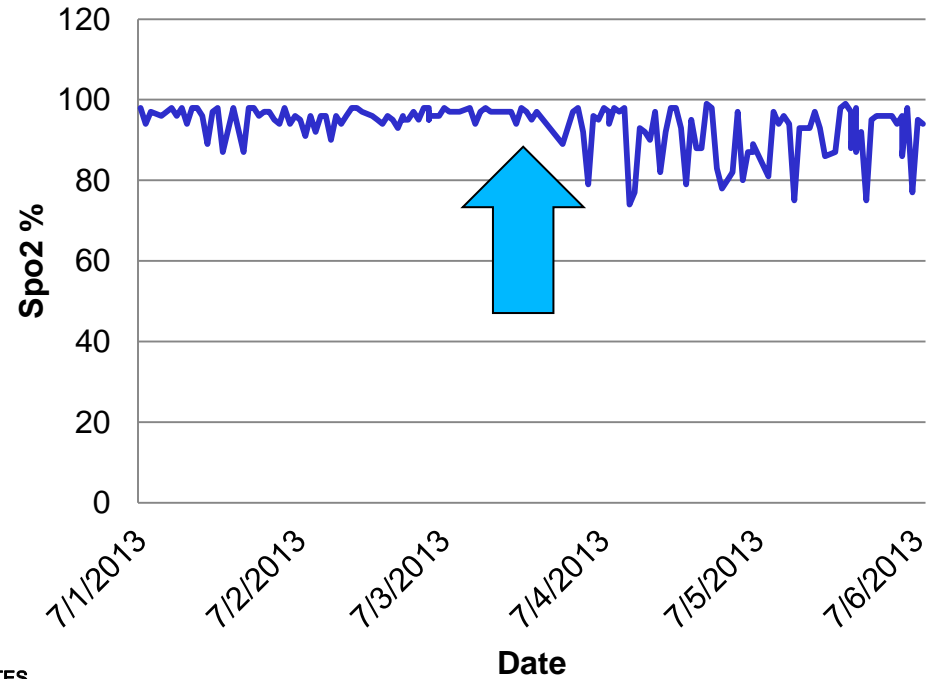
Found to have cellulitis – intervention occurred

PIR Motion Activity vs Spo2 – Patient 2 – Intervention

PIR Data

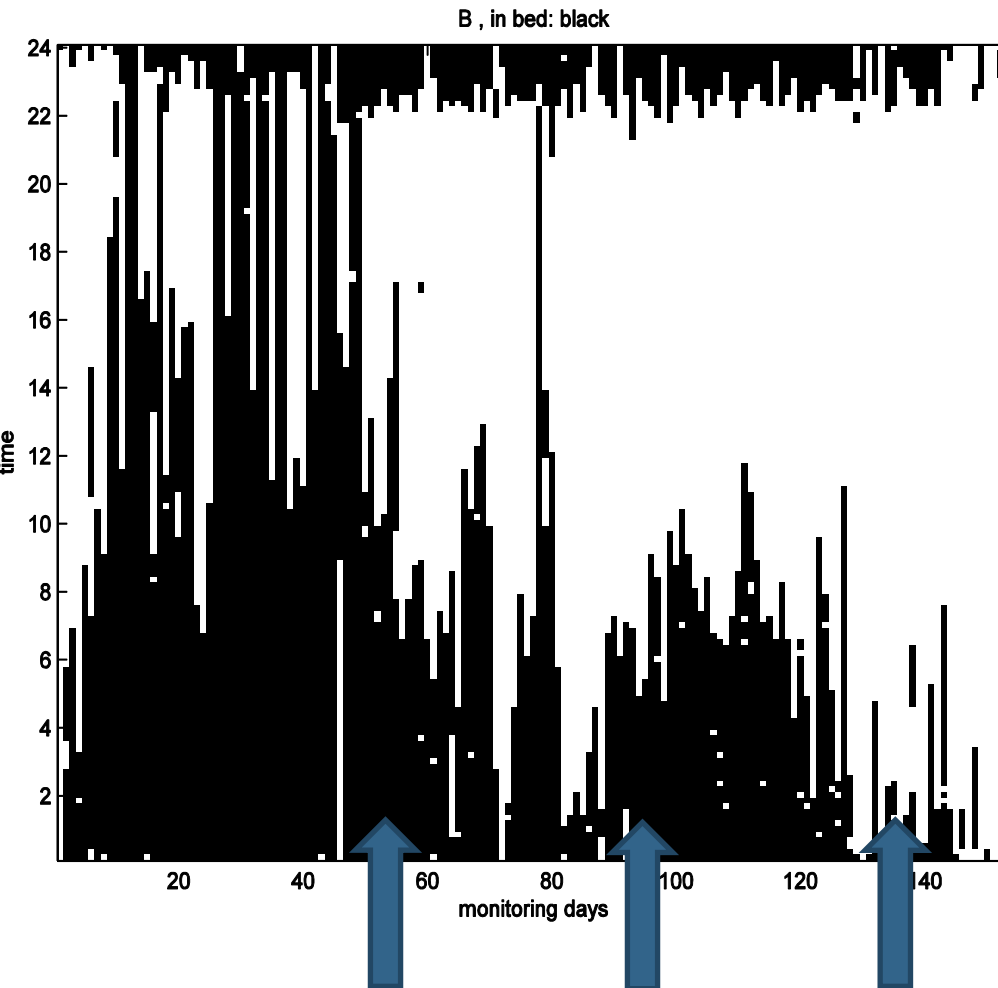


Spo2 Data



#events in 00-06 hr	mean	std
1 st 20 days	0.36	0.96
Apr 1 onwards	1.13	1.5

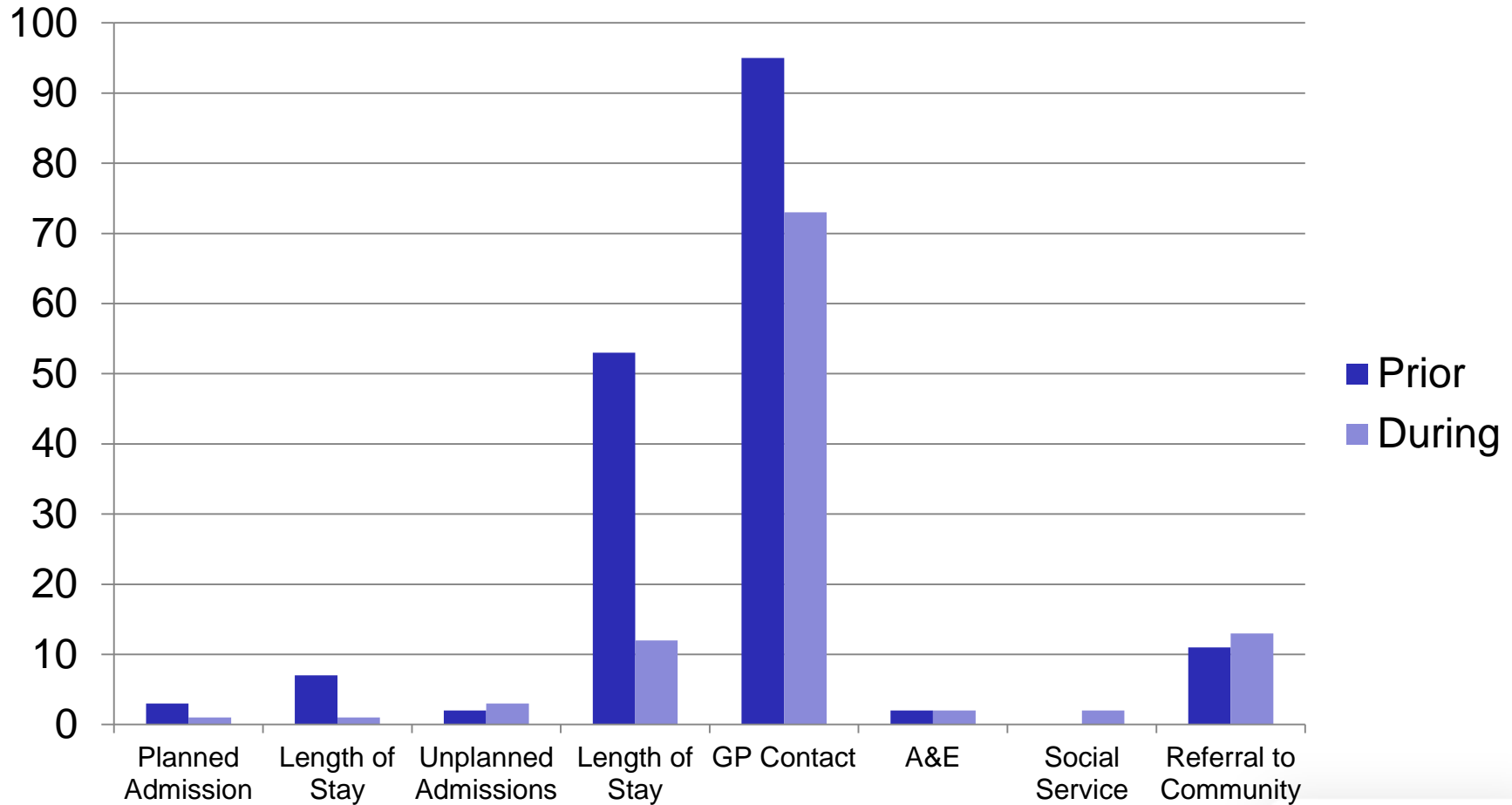
Patient 2 – Retrospective Data Analysis



- Patient enrolled in Feb 2013.
- 8 Apr referred to Pulmonary rehab
- Monitoring day 60 (14 Apr) onwards there is:
 - an increase in the number of bed events – getting up more frequently
 - bed occupancy decreases, Apr 24 onwards;
 - Total occupancy < 3 hours after day 143 (6 Jul)
 - starts to get up earlier, but does go to bed ~ usual time
- Patient died at home 16 July 2013

Saving of £19,651

Resource Usage n=29



Simple Economic Reporting – Return on Investment

Difference in Patient Resource



Equipment Cost



Staff Cost



**Patient Resource
Usage
= (£19,651)**



**Cost of running the
service for 6 months
= £35,562**

- £15,911



- Patient Perception
- Professional Perception
- Industry
- Commissioners
- Providers

Enhanced Care

- provided enhanced care that was over and above what they consider to be their normal care
- More actively involved
- Improved sharing of information

Access to services

- Not helped in accessing services

Privacy and Discomfort

- Most of those that agreed to take part did not have concerns
- Paid carer – requested removal due to “surveillance”

Personnel Concerns

- No concerns over who was looking at data or safety of data

Replacement for usual care

- Not a substitution for normal health
- Not as suitable as regular face to face

Satisfaction – good

- Able to provide more information to other professionals such as consultants, district nurses and other community services about a patient's condition".
- "Able to see information about what is going on in the home"
- "Access to a more complete data set about a patient's habits and health"
- "Able to see correlation between habits and health data"
- "Been able to provide intervention when otherwise we would not have known"

Benefits

- Improved communication between services
- Ability to identify those in need
 - “Able to provide more information to other professionals such as consultants, district nurses and other community services about a patient’s condition”.
 - “Able to see information about what is going on in the home”
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Challenges

- More of a “project” than “usual” practice
- Gap in services
- Impact on time
- Technical Issues
- Visualisation of data
- Carer resistance – residential homes / unpaid and paid carers
- Identifying who is best suited for the service “the needy”

- Combining health and social care information can support patients in their own home
- Many barriers to information sharing within the UK across different health and social organisations.
- Slow progress with integrating health and care services within England
- The cost of technology is too high and a way to break the monopoly in the market should be found.
- How can we incentivise General Practitioners within England to provide additional services?
- How to evaluate projects in a way that will provide evidence for services to be commissioned?
- How to ensure that there is stakeholder engagement during the commissioning of services.

- We have designed new pathways of care and developed new relationships with social services and other community services
- The service has been beneficial for the patient in clinical and general wellbeing
- The service has provided a greater depth of data for decision making
- We have discovered that the greatest impact in both clinical and quality of life has been to those that were deemed to be most frail
- We have collected economic data that will inform future design of the service
- We have developed ways in which to analyse, visualise and correlate health and habits data that is useful and meaningful

Next Steps & Recommendations

- Develop and update user requirements
- Investigate new technologies and ways of working
- Test bed for commercial deployment

R&D /
Commercial
Deployment

- Service Continuing
- Re-define target population
- Resource allocation
- Expand Services
- Integrate with EPR
- Include unpaid carers
- Update Pathways

Local
Deployment

- Three million lives
- Telehealth DES

National
Deployment

- Hertfordshire Social Services
- Link up with “Home First” pilots
- Continue links with care trak

Regional
Deployment

Summary of all Pilot inCASA Outcomes

- Initiated integration of services
 - 4 models across 5 countries
 - 1 site could not get buy in from GP's
- Investigated different ways to use combined health and habits data based on different populations
 - Identified limitations of tools based on population and need
 - Beginning to identify patterns and correlations in health and habits data
- All 5 pilots have developed plans to continue and in some cases expand services
- inCASA platform has extended into a COPD service in Denmark

Questions

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WSD Results

“no convincing evidence’ that telecare can reduce other healthcare or social care costs”

“devices have no significant impact on the use of other NHS or social care services

“telehealth had failed to improve quality of life in patients with COPD, Diabetes or Heart Failure”

BMJ 2013;346:f653 doi: 10.1136/bmj.f653

The New DES (Direct Enhanced Services) for Telehealth

“The GPC does not believe that the remote monitoring arrangements set out in the new enhanced service will deliver the practice workload benefits that the Government claims. Indeed, we believe that remote monitoring arrangements could involve a potentially significant new workload for practices, despite there being very little evidence that it will bring patients any benefits”.

21p per patient, or £1,478 for an average-sized GP practice

<http://bma.org.uk/practical-support-at-work/contracts/gp-contract-survival-guide/survival-guide-remote-monitoring>