CARING FOR PATIENTS
supporting vulnerable and elderly people at home and in the community

doc@HOME®
The bridge to care

Assistive Independent Living

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Docobo Limited
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STARTING AND CONTINUING THE PROCESS

- **Doc@HOME development started - pilots**
  - 2001 - EU Framework 5: RTD programme - DOC@HOME
  - 2003 - EU Quality of Life Programme: REALITY - socio economic trial
  - 2005 - EU eTEN project: ‘HEALTH-eLIFE’ validation programme

- **Roll out of services**
  - 2006 - Developing the commercial business case model
  - 2007 - Deployment to Primary and Secondary Care Trusts

- **Filling the gaps**
  - 2007 - EU Framework 6 project ‘ENABLE’ – wearable systems
  - 2008 - TSB ALIP-1 project ‘PEACE’ ‘Personal Care Environments’
  - 2009 - TSB ALIP-2 ‘PEACE ANYWHERE’ Mobile PCEs

- **Modelling**
  - Service cost efficiencies
  - Care pathways
  - Business case analysis - new models - ‘ENABLE’ and ‘PEACE’ in 2010
“Cheshire Puss”, said Alice, “Where do you suppose I ought to go from here?”

“That all depends where you want to get to” said the cat

Alice in Wonderland, Lewis Carrol

If you don’t know where you are going, any road will get you there

Lewis Carrol
OUTCOME OBJECTIVES - Extend Health and Wellbeing

AGE PROFILES FOR PUBLIC EXPENDITURE PER HEAD

Source: dti Global Watch
DEMAND AND SUPPLY CHALLENGES

Care Delivery

Demand Goals
- More, Appropriate, Focussed
- Better, Consistent, Available
- Preventative, Education
- Stable, Flexible, Transferable

Supply Goals
- Faster, Secure, Adaptable
- Anytime - Anywhere
- New Models, Integration
- Resource Benefits
- Asset Management

doc@HOME facilitation
Productivity Gains
AN SME AND THE NHS

● What we saw in 2001
  ◆ Great potential to help people
  ◆ Massive potential market – the analysts said so!
  ◆ Commercial opportunity

● What we did not see
  ◆ Time to market – a disruptive product
  ◆ Fragmented NHS and difficult to make decisions
  ◆ Lack of appetite for investment in remote healthcare

● Result
  ◆ A long journey
  ◆ Need to be tenacious – we will make a difference!
  ◆ Focus on potential benefits
  ◆ Need early adopters
MARKET DYNAMICS AND REALITIES

- NHS - the Kings clothes!
  - Big claims of problems – admissions, etc
  - Great words in strategic plans – but only spend on the very ill
  - No practical intelligence to identify patients

- Not a huge market
  - Where is the need? – only the very ill will use it
  - 500-2000 in each PCT
  - Ok for an SME, but not good for a corporate

- Playschool market – commissioner/provider split
  - Little commercial or business skills
  - Fragmented market = fragmented care

- Private Provision?
  - Do not manage complex LTC patients
  - Only if numbers increase and people willing to pay
Case Study 1 - Establishing the Evidence
**CASE STUDY 1**  What have we learnt?

- **What did Stan tell us?**
  - He is ‘Cool’, nice, at ease
  - He is no longer frightened
  - He is becoming an expert
  - He is able to live in his own home with his wife
  - His wife says he is no longer grumpy
  - Pearl’s quality of life is improved
  - Stan and Pearl are self managing their care
  - He rarely goes into hospital now

- **What did Wendy tell us?**
  - Stan was in and out of hospital on a regular basis
  - She needed to make 4 to 5 visits every week
  - Now remotely monitors Stan each day
  - clinical assessment required only once a week
  - receives alerts of changes in conditions
  - 4 additional patient visits
  - time management/productivity gains
ORGANISATIONAL CHANGES

- AL will only grow when the market can use it properly
  - This must be a priority - Telehealth is no good on its own
  - Parallels with the Ambulance service
  - Case Co-ordination (see next slide)
  - eClinics
  - New Epidemiology required
  - The Virtual ward concept

- Change of focus from targets to patient care
  - Focus on patient wellbeing, health, and quality of life
  - Consider wider benefits –QoL of carer, family and clinician

- Care Convergence
  - Customer needs to be integrated and interoperable

- Who will buy an integrated and interoperable system?
  - Social services or PCT or Acute?
  - Resource management - whose budget??? - new structures necessary
CARE PATHWAY BUSINESS MODEL

Referrals from:
- GPs, DNAs, CMs,
- Acute, A&E,
- Ambulance
- AC&CC,
- Police,
- Local Authorities

Nominations by:
- patients, carers,
- relatives,
- neighbours
- voluntary bodies

Find patients

Community Resources

5 Tier Model of Care

Care Plan
Information Prescription

Care Plan

Analysis and feedback

Detail of changes to
- patient condition
- health status
- environment

Specialised Assessments

Events:
- Visits by GPs, DNAs, CMs, HCPs, Social Workers, Ambulance, Wardens, MonW,
- Cleaners etc

Attendance at/by:
- Acute clinics, A&E,
- W in Cs, Police,
- Local authorities, Volunteers, etc

Actions by:
- GPs, DNAs, CMs, Acute,
- A&E, Ambulance AC&CC
- Police, Local Authorities,
- Voluntary Bodies, etc.

Clients
Carers

Assessment Process
RETURN ON INVESTMENT - THOUGHTS

● Telehealth
  ◆ Reduced admissions, visits, calls, etc - YES!
    .....BUT.....only of interest to NHS
  ◆ Improved Quality of Life for patients and carers – ABSOLUTELY!
    .....BUT.....of no interest to NHS
    .....Research on the cost of this required
  ◆ So only the most ill qualify

● The wider benefits and who will pay?
  ◆ What do people see as important?
  ◆ “What will help mother to stay at home and reduce my worry?”
    .....she is lonely, misses Dad,
    .....suffers from a lack of confidence, contact and mobility
  ◆ “If this can be solved- I will pay”

● Docobo – an innovative approach to these needs
  ◆ ALIP1 PEACE - INTEGRATED CARE SYSTEMS - Telecare and Telehealth
  ◆ ENABLE - WEARABLE SYSTEMS to support vulnerable and elderly people
  ◆ ALIP2 PEACE - PERSONAL CARE ENVIRONMENTS - that follow the patient
CASE COORDINATION

Increased contact with carer and relatives

Regionalised response and false alarm confirmation

Co-ordinated, localised care delivery

Community Care Resource Management Centre

Supported persons in the home

CARE

Health Services (PCT, GP, Nurses)

Self Help Feedback

Tasks

Feedback & Reports

Alarms

Alerts

Tasks, Contacts, Reports

Relatives and Carers

CARE

Community Services

CARE

Information

Voice

Mobility, Panic alarms, Home sensors

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SUMMARY OF EXPERIENCE SO FAR

- **Service delivery issues**
  - Unclear funding streams - competitive budgeting - why?
  - UK - NHS – fragmented business units – constant change
  - Social / Health budget conflicts
  - DECISION MAKERS often in conflict with CARE DOERS

- **EU member states**
  - Embryonic or no policy in place yet
  - Little reimbursement in place
  - Infrastructure fragmentation
  - Big industry politics- big is beautiful! - small is high risk!
  - Poor support for the SME
  - Misinformation is rife

- **Target driven for the wrong reason**
  - Patient care rarely discussed - Recurring cost budgets needed
KEY BUSINESS CASE ASPECTS

• Local needs
  ◆ Portable systems for mobile populations
  ◆ Sensor/data fusion benefits – new approaches
  ◆ Medical Device approvals
  ◆ System integration for seamless services
  ◆ Data transfer solutions
  ◆ Interoperability and seamless connectivity (Open standards)
  ◆ Information and decision support profiling
  ◆ Integrated Social and Healthcare systems
  ◆ Device cost optimisation that is need specific

• Green attributes
  ◆ EU design, manufacture and support
  ◆ Low carbon footprint
  ◆ Recyclable devices
  ◆ Low power consumption - use anywhere, anytime
“It isn’t that they can’t see the solution.

....It is that they can’t see the problem”

G K Chesterton, Author, The Scandal of Father Brown (1935)
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