2.0   E-Health and Independence

2.1   Introduction

Demographic changes in populations over the next few decades will result in a proportionally larger number of older people. In Europe, the number of people aged from 65 to 80 will rise by nearly 40% between 2010 and 2030, and by 2050 more than a quarter of the European population is expected to be over 65 years (EC, WHO). The proportion of elderly people is likely to double from 10% to 20% over the next 50 years. The aging population and poor lifestyles will lead to more people suffering from long-term conditions. In the western world, the ratio of workers to retirees is declining and the number of people living alone is rising. These demographic changes will increase the cost of providing health and social care at an unsustainable rate, with social and economic implications. A change in care provision is needed and new ways of distributing resources are being sought.

2.2   Rationale

In pilot studies, investment in technology has been shown to improve the effectiveness and delivery of both residential and domiciliary care. There is increasing evidence to support the value of remote monitoring for people with chronic diseases, including:

- 35-56% reduction in mortality;
- 47% reduction in risk of hospitalization;
- 6 days reduction in length of hospital admission and
- 65% reduction in office visits;
- 40-64% reduction in physician time for checks and
- 63% reduction in transport costs

(Cleland et al 2005; Lee R, Goldberg et al, 2003; Scalvini S et al., 2001; Elsner et al, 2006; Van Ginneken et al 2006)

Technology-supported health and care services can help reduce demands on carers and provide better, more effective solutions for health and independence. There are two inter-related markets for technology-supported services that need to be developed in order to provide sustainable health and social care in the future:

- **Market 1: Telecare, Telehealth, Medicare** - the provision of equipment, systems and services for monitoring general well-being and/or specific medical conditions (e.g. high blood pressure, diabetes etc), for treatment and for dispensing medication, or for control related to these conditions.
- **Market 2: Assistive Living, Assisted Living (AL)** - specialist equipment and software, including that related to mobility, access, ergonomics and household features designed to assist independent living. AL equipment can help reduce reliance on social and support services and allow some

people to stay out of residential care. It includes infrastructure and system support provision and may encompass residential care and domiciliary care. NOTE: AL equipment that does not use ICT (e.g. stairlifts etc) would not be covered by this project.

There are already strengths and opportunities in these markets:
- The estimated potential market in SE England alone for telecare services is currently approx £1.1billion p.a.
- The market for telecare technologies is expanding due to age and chronic health demographics.
- Many companies possessing a broad range of relevant expertise are currently working in these markets, including some of the world's biggest telecommunications companies.
- Due to the market expansion, new companies are being attracted into the telecare arena and improving competition in the industry.
- Universities are becoming more involved in telecare research, which will make next generation telecare technology smarter, more user friendly, more standardised.

However, market weaknesses may threaten full development:
- The required investment in systems and technology for telecare is significant.
- Delivery of good telecare services is complex, requiring an integrated service involving multiple stakeholders across private and public sector.
- Current provision of telecare and telehealth services is fragmented, reducing cost benefits.
- Budgets for procurement of services and technology are often held by many different organisations, complicating the market.
- Current pilot schemes in telecare/assisted living lack coherence, limiting the transfer of knowledge and best practice between pilot schemes, experts in the field and other stakeholders.
- Existing training of professionals in telecare and telehealth is unstandardised and unregulated.
- Systems for telecare are not currently standardised.
- High speed internet access, on which telecare may be dependent, is not always available.
- Those in most need of telecare services, e.g. the elderly or disabled, may not have access to or familiarity with the necessary technologies e.g. internet

2.3   What do we want to achieve?

Four main areas of need in the development of telecare, telehealth and assisted living services have been identified. Project proposals may be developed in response to either one, or more, of the identified areas of need (below).

Other PEOPLE sub-objectives are also strongly linked with the use of ICT for health and independence, such as 'Social and e-inclusion' and 'Silver economy', and project proposals which integrate one or more of these sub-objectives would be welcome.

- **Theme 1: Integration of stakeholders, agencies, industries, private/public sectors, health/social care providers** - Currently integration between agencies (Governmental / regional / local / charitable), industry, public / private sector, care / health is poor. Generally, each agency providing telecare/telehealth services will provide their own specific services in their own area of extertise, which may not be joined up with other relevant services. Integration of services between European countries, allowing mobility of service users, is very rare. Services are supply driven and need to be demand driven i.e. by the individual service user. A 'single desk' policy is needed. Projects promoting integration of services with common standards between any of the above organizations, and between participating countries, should help develop a 'single desk' policy, focused on the individual service user.

- **Theme 2: Supporting professional carers** - Currently, training and support for professionals working with ICT/telecare in the delivery of care is generally difficult to obtain and not of a high level. There is also little support for the establishment of relationships and roles between professional carers and the service user, their family and their informal carers. Projects aimed at increasing access to and the professionalism of telecare training for professional carers are required, as well as projects that establish relationships and roles between the professionals and non-professionals involved in telecare services. These projects will be required to complement and add value to other existing and planned regional or national educational provisions.

- **Theme 3: Dissemination of information on currently available telecare/telehealth technologies -** Awareness of available telecare/telehealth technologies amongst the general public and commissioners in organisations providing care is generally poor. Projects to improve awareness amongst the public and care providers are required.

- **Theme 4: Encouraging and improving take-up of technologies –** Pilot studies and surveys have shown that some potential users of technologies for health and social care are reluctant or unable to use technology-supported services. There are various reasons for this, for example: lack of understanding of the benefits, fears regarding data security, general fear of technology, unwillingness to be 'badged' as needing care by the presence of obvious technology in their home/on their person, inability to interface with the technology (e.g. visually-impaired, non native-language speakers etc). Projects which address one or more of the issues around poor take-up are required.

2.4 How are we going to achieve this?

Different methodologies may be used in order to achieve improvements in service delivery under the above themes, for example:
- Reviews/investigations
- Identification/survey of barriers to engagement with/between stakeholders
- Identify the demographics of care provision

- Engaging with and providing advice/consultancy to stakeholders including industry, local/regional/national government, authorities and policy makers
- Facilitatiiong joint working of stakeholders
- Promoting, supporting and transferring knowledge and evidence -based best practices for policies, skills etc
- Development of demonstrators of best practice to promote transfer of knowledge and quality standards
- Review of standards/quality in other care provision and transfer/harmonisation of standards for the provision of ICT for health and independence.
- Review of standards/quality in other training sectors and transfer/harmonisation of standards for training in the use of ICT for health and independence.
- Awareness raising education and training programmes
- Marketing campaigns

2.5   *Themes (priorities)*

- **Priority 1: Integration of stakeholders, agencies, industries, private/public sectors, health/social care providers** - Projects promoting integration of services with common standards between any of the above organizations, and between participating countries, should help develop a 'single desk' policy, focused on the individual service user.

- **Priority 2: Supporting carers** - Projects aimed at increasing access to and the professionalism of telecare training for professional carers are required, as well as projects that establish relationships and roles between the professionals and non-professionals involved in telecare services.

- **Priority 3: Dissemination of information on currently available telecare/telehealth technologies -** Projects to improve awareness amongst the public and care providers are required.

- **Priority 4: Encouraging and improving take-up of technologies –** Projects which address one or more of the issues around poor take-up are required.

Possible outcomes might be:
- Delivery of a vision for sustainable health and social care provision.
- Models of transferable best practices.
- Establishing international networks of experts in the use and implementation of ICT for health and independence.
- Envisaging and delivering supportable and sustainable telecare training, care provision and information services/demonstrators.
- Creating databases of telecare information/services/technologies etc.
- Increasing awareness of & access to ICT technologies for health and independence.
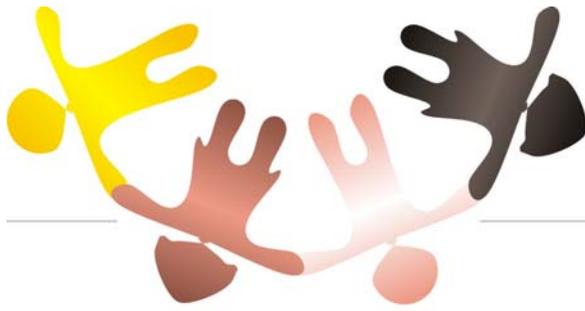
- Policy measures, instruments & recommendations and networks to stimulate and interlink health and social care provision across local agencies and transferability across national boundaries .

2.6   Which stakeholders could be involved?

2.7   Indicators

Possible results might be:
- Significant improvement in take-up for ICT for health and independence.
- Improve the people/technology interface within services
- Policy provision for e-health and independence - scenarios documented by pilot studies & demonstrator.
- New services, providers and employment in e-health and social care.
- Improved knowledge/understanding of health and independence, impact on family and society and benefits of ICT technologies.

Possible indicators might be:
- Models of transfereable best practices, SWOT analysis & pilot studies
- Take-up of new ICT technologies
- Number of training programmes delivered
- Number of businesses assisted into new supply chains
- Number of jobs created or safeguarded including seasonal and part-time employment (new employments)
- Changes in opportunity and demographic of care provision eg silver economy, equality initiatives, women's enterprise, SME's, community and family initiatives
- Number of new sustainable, community organisations
- Number of new partnerships in place
- Number of people assisted in their skills development
- Number of policy recommendations
- Number of inter-regional workshops
- Cost benefit analysis of care provision and systems to encourage adoption of changes