Action Area 7 – Change Management

Andrea Pavlickova
NHS24

EIP on AHA, B3 Action Group
Outline

• Introduction to AA7 on ICT and Teleservices

• Deliverables:
  - ICT Matrix for Integrated Care
  - Good practices on ICT and Teleservices
  - Analysis of good practices on ICT and Teleservices
  - Maturity Model for Adoption of Integrated Care Enabled by ICT
  - Article: A Maturity Model for Adoption of Integrated Care within Regional Healthcare Systems

• Cooperation with other European projects
  - Momentum Blueprint for Telemedicine Deployment in Europe
Introduction to AA7 on ICT & Teleservices
What is AA7 on ICT & Teleservices?

Objectives:

• Highlight **the potential of ICT/teleservices** to underpin the delivery of integrated care and to realise service efficiencies/cost-effectiveness (Action Plan, 2012)

• Improve the **effectiveness** of health and social care ICT systems and data sharing by identifying solutions which improve **interoperability** between record systems and data sharing (Action Plan, 2012)
ICT and Teleservices: Who are we?

7. Electronic Care Records / ICT / Teleservices
Public Group  7electroniccarerecordsictteleservices+eponahab...
ICT / teleservices to underpin the delivery of integrated care and to realise service efficiencies / cost effectiveness

Share something with this group...

Andrea Pavlickova
To 7. Electronic Care Records / ICT / Teleservices, John Crawford, Enrico Maria Piras, Giorgio Vezzani, Bruno Jean-Bart, Stuart Anderson, Cecilia Vera, D. Whitehouse, and Marc Lange
Feb 14
AA7 Progress Conference Call
Friday, February 14, 2014 2:00 AM
Virtual (skype)
You haven’t responded yet. RSVP

EIP-AHA AA7 Conference call Agenda 14
February
Uploaded to 7. Electronic Care Records / ICT /
ICT and Teleservices: Coordination
Overview & Progress of AA7 activities

Mapping of ICT solutions 2013/2014: ACHIEVED

- ICT matrix for integrated care & Collection of good practices
- Aligning existing European projects (epSOS, Calliope, Momentum)

Development of easy-to-use tools 2015: ACHIEVED

- Maturity Model
- Blueprint for Telemedicine Deployment
Deliverables of AA7 on ICT & Teleservices
(1) ICT Matrix for Integrated Care

- **Rationale:** A need for consensus-based framework

- **What do we mean by service?**
Capacity held by a group of people to carry out an activity that benefits some other person or group; this may or may not involve computational infrastructure to achieve

- **Direct** (e.g. providing medication) or **indirect needs** (e.g. auditing the use of a service to provide data for service redesign)

- **Vertical integration** between primary/secondary/home health and care and **horizontal integration** across social/health/assisted living
<table>
<thead>
<tr>
<th>SERVICE</th>
<th>CATEGORY</th>
<th>INTEGRATION</th>
<th>IMPORTANCE</th>
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<tbody>
<tr>
<td>Personal health status</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
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<td>Personal Health &amp; Care records</td>
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<td>Assessments</td>
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<td>Investigations, orders, tests</td>
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<td>Care planning</td>
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<td>Care pathways</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
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<td>Medications &amp; Treatments</td>
<td>Direct</td>
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<td>Assisting</td>
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<td>Processes &amp; Protocols</td>
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<td>Service User Journeys</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
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<tr>
<td>Overall service user management</td>
<td>Direct</td>
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<td>Current service user relationships</td>
<td>Direct</td>
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<td>Organisations, Care provider &amp; services</td>
<td>Direct</td>
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<td>Waiting lists</td>
<td>Direct</td>
<td>Horizontal</td>
<td>Of low interest</td>
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<td>Care professionals support services</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
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<td>SERVICE</td>
<td>CATEGORY</td>
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<td>Professional process</td>
<td>Direct</td>
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<td>Tele/services</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
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<td>Support for coding &amp; datasets</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
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<td>Social networks</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
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<tr>
<td>Managing identities of individuals</td>
<td>Governance</td>
<td>Horizontal</td>
<td>Primary</td>
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<tr>
<td>Managing authorisation of individuals</td>
<td>Governance</td>
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<td>Managing groups of service users</td>
<td>Governance</td>
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<td>Managing multi-agency teams</td>
<td>Governance</td>
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<td>Managing consent from service users</td>
<td>Governance</td>
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<td>Managing service policies</td>
<td>Governance</td>
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<tr>
<td>Logging &amp; Auditing</td>
<td>Governance</td>
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<tr>
<td>Analytics services</td>
<td>Other</td>
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<td>Education services</td>
<td>Other</td>
<td></td>
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<tr>
<td>Standardisation</td>
<td>Other</td>
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(2) Collection of good practice examples

- AA1 Organisational Models
- AA2 Change Management
- AA3 Workforce Development
- AA4 Risk Stratification
- AA5 Care Pathway
- AA6 Patient / user empowerment
- AA7 Electronic Care Records / ICT / Teleservices
- AA8 Finance, Funding
Good Practice per Action
Area: ICT/TELESERVICES

- UK: 5
- DENMARK: 3
- NETHERLANDS: 1
- GERMANY: 4
- FRANCE: 3
- ITALY: 10
- SPAIN: 15
- ISRAEL: 1
<table>
<thead>
<tr>
<th>Service</th>
<th>Category</th>
<th>Integration</th>
<th>Importance</th>
<th>Good practice</th>
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<tbody>
<tr>
<td>Personal health status</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
<td>MACVIA-LR; Andalucia-BCU; Veneto TC-CH</td>
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<td>Personal Health&amp;Care records</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
<td>SISSI; Andalucia-Palante, Trento-TREC, Aragon-home,</td>
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<td>Assessments</td>
<td>Direct</td>
<td>Horizontal</td>
<td>Assisting</td>
<td>Veneto-TC&amp;CH</td>
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<tr>
<td>Care planning</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td></td>
<td>MACCABI, Parkinson-net, MACVIA-LR(falls), MACVIA-LR, Piemonte-PDD, Veneto-TC-CH</td>
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<tr>
<td>Care pathways</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
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<td>MACVIA-LR(Fals), Andalucia-BCU, Basque-PIP, Aragon-Hemophilia</td>
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<td>Medications &amp; Treatments</td>
<td>Direct</td>
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<td>Assisting</td>
<td>MACVIA-LR</td>
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<td>Service User Journeys</td>
<td>Direct</td>
<td>Vert./Horiz.</td>
<td>Primary</td>
<td>Catalunya-MECASS; Saxony</td>
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</table>
(3) Analysis of good practices: Telemedicine for the CD patients- Piedmont

- Tele-services
- Integration of different technology components; mobile phone; information system; architectural and technology standards; security system; management software
- Before: periodic face-to-face visits;
- Now “Contact Centre/Operational Centre” to manage contacts with patients; EHR
- Dissemination strategy
- Tele-services
- Supportive services
- Environment Before/After
- ICT components
  - Integration of different technology components; mobile phone; information system; architectural and technology standards; security system; management software
(3) Telemedicine for the CD patients - Piedmont

- Scarcity of available local resources; pending application of the rules and compensation policies of the telemedicine services.
- Efficient in resource allocation
- Lowering costs and waiting times
- Lower service costs

Management platform & organisational model adopted ("Multi-patients model"; "Personalised device at home");
- The easy-to-use
- The key factor is the availability of a Service centre and adoption of clinical protocols.

Barriers

Success factors

Potential for transferability

Lessons Learned

An alternative to traditional daily services offered by health providers allowing better recovery, autonomy and independence in patients’ daily life; health providers obtains decongestion of spaces and services in favour of acute cases.

Lessons Learned
(4) ICT Maturity Model: Rationale

To scale up the integrated care solutions, one needs to understand:

✓ How far have the regions progressed in integration? (Baseline of regions);
✓ Areas for improvement;
✓ Local/national context of good practices;

Existing varieties in progress towards integrated care and supporting ICT across Europe

• Why some regions have achieved more than the others? What can we learn from these pioneers?

• What limits progress in some regions? – “Necessary conditions for success”
(4) ICT Maturity Model: Objectives and methods

- Assess how eHealth programmes & assets have been developed by European regions to support integrated care and service innovation

- Extract *common themes to build a ‘maturity model’* to help other regions

Qualitative assessment based on *interviews and desk research*

- Phase 1 Interviews with 6 regions involved in EIP AHA (Feb – April 2014)
  - Athens; Basque Country; Catalonia; Galicia; N Ireland; Saxony

- Phase 2 Interviews with 6 regions involved in EIP AHA (Jan– March 2015)
  - S Denmark; Skane; Scotland; Puglia; Medical Delta (Delft); Olomouc
(4) ICT Maturity Model: Questions asked during the interview process

Structured face-to-face interview in 3 parts:

- **Current Situation**
  “Which systems and services are in productive use?”

- **Retrospective**
  “Describe the journey that you have taken to get to this point”

- **Prospective**
  “What do you plan to do next?”
(4) Dimensions of maturity

- Capacity Building
- Readiness to Change
- Structure & Governance
- Information & eHealth Services
- Standardisation & Simplification
- Finance & Funding
- Population Approach
- Removal of Barriers
- Citizen Empowerment
- Evaluation Methods
- Breadth of Ambition
- Innovation Management
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<tr>
<th>Dimension</th>
<th>Objective</th>
<th>Maturity Indicators</th>
<th>Examples</th>
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</table>
| Readiness to Change    | Compelling vision, sense of urgency, stakeholder support                  | Public consultation, clear strategic goals & milestones, stakeholder engagement      | - Skane – ‘be creative…’  
- Basque – Five reference documents on the ‘challenge of chronicity’  
- N Ireland – Consulting with Basque … ‘Transforming Your Care’ (Compton Report)                                                                 |
| Structure & Governance | Sustain and deliver new systems, effective change management              | Funded programmes, ICT competence centres, distributed leadership, communications    | - Catalonia – TIC Salut (eHealth & Innovation Agency)  
- Basque – Kronikgune – Chronic disease management innovation  
Greece – National eHealth Board, National eHealth Network  
- N Ireland – DHSSPS  
- Skane – GPs in ED, ED docs to community |
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<th>Maturity Indicators</th>
<th>Examples</th>
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<tbody>
<tr>
<td>eHealth / eServices</td>
<td>Essential components, secure and trusted services, ‘digital first’</td>
<td>Unique citizen ID, linked records, regional EHR, scale teleservices</td>
<td>N Ireland – National Electronic Care Record</td>
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<td>-NI, Galicia, Catalonia, S Denmark… - UPI</td>
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<td>-Galicia, S Denmark – Clinician Smartcards</td>
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<td>-Denmark – Medcom, SAM:BO</td>
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<td>-Greece – national ePrescribing</td>
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<tr>
<td>Standardisation</td>
<td>Simplification of infrastructure, fewer integration points to manage, easier interoperability</td>
<td>Use of international standards, reduction in number applications, regional procurements, mandates</td>
<td>-Galicia – single EMR</td>
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<td>Skane – single record ‘NPO’</td>
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<td>Maturity Indicators</td>
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<tr>
<td>Inhibitors</td>
<td>Actions to remove barriers: legal, organisational, financial, skills</td>
<td>Laws to enable data sharing, financial incentives, training</td>
<td>- Galicia – Legislation to improve information sharing between health and social care teams</td>
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<td>Saxony – Confidence in secure information exchange based on eGK telematics infrastructure</td>
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<td>- Catalonia – Incentives to ensure sharing of documents (5% fines)</td>
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<td>- Delta – Privacy, reducing</td>
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<tr>
<td>Population</td>
<td>Understanding and anticipating demand, meeting needs better</td>
<td>Risk stratification, range of care pathways, prevention, feedback</td>
<td>- Catalonia – Risk stratification to identify ‘complex needs’ sub-population (80,000)</td>
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<tr>
<td>Approach</td>
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<td>Basque – Risk stratification to identify those who would benefit from proactive disease management</td>
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## Frequently observed indicators of maturity

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<th>Maturity Indicators</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Evaluation Methods</td>
<td>Evidence-based investment</td>
<td>Agencies - HTA, health impact, care cost/quality improvements</td>
<td>- Galicia – Avalia-T (HTA agency, working with European HTA networks)</td>
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<td>- Catalonia – AQuAS (Health Quality and Assessment)</td>
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<td>- Saxony – University of Dresden (evidence of cost-effectiveness)</td>
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<td>Breadth of Ambition</td>
<td>Fully integrated care services</td>
<td>Both vertical and horizontal integration, citizen engagement</td>
<td>Galicia – Access to care records by social care workers in a health context (eg elderly care homes)</td>
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<td>N Ireland – Integrated Care Partnerships (cross-sector)</td>
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<td>- Catalonia – HC3 – pri/acute, pharms, social</td>
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<tr>
<td>Innovation Mgmt</td>
<td>Faster adoption of proven ideas</td>
<td>Outreach to regions, academic &amp; industry relations, procurement</td>
<td>- Basque – Office of Innovation (14 strategic projects across 5 themes)</td>
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<td>Greece – National eHealth Board, National eHealth Network, PPP model for</td>
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<td>telemedicine (Vodafone) and education (MSD)</td>
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<td>Saxony – PPP model for telemedicine (T-Systems, Carus)</td>
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<td>- N Ireland – Connected Health Ecosystem (academia, industry and HSC)</td>
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<td>Galicia – Innova-Saude (procurement innovation based on IPP)</td>
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<tr>
<td>Capacity Building</td>
<td>Increasing technology skills, continuous improvement</td>
<td>Capturing bottom-up innovation, deployment skills</td>
<td>Basque – ARCHO (instrument for self-assessment of organisations readiness to handle chronicity)</td>
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<td>- Catalonia – TIC-Salut (scaling up good practice)</td>
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(4) ICT Maturity Model: Some general observations

- Demographic challenges (ageing, chronicity, frailty) accelerating change
- Objective is more *appropriate* use of care services, not just cost savings
- Mostly vertical integration so far (primary/community/acute)
- ICT is highly customised to local conditions, so limited diffusion
- Attempts being made to reduce number of systems and standardise…
- …whilst ‘bottom up’ innovation and local adaptations are encouraged
- Capabilities have taken years to build – Patient ID, HIE, EHR, portals
- National identifiers: health, tax, banking…
- Cross-regional cooperation (visits, ideas, MoU’s) increasingly important
- External funding helps innovation, but sustained investment is needed
(4) Next step for ICT Maturity Model
Development of self-assessment tool

The potential tool should:

- Provide an objective measurement;

- Guide the region how to improve rather than rank them;

- Focus on the gaps but also the areas of improvement;

- Provide recommendations and methodology on how to improve (B3 good practices, reference sites);

- Position the European regions where they stand in terms of weaknesses and strengths and thus providing an opportunity for sharing good practices and learning from each other “matchmaking” of the regions;
(4) Experience of regions with self-assessment

Maturity Assessment for Scotland
(4) Experience of regions with self-assessment

Maturity Assessment for Puglia Region, Italy
(4) Experience of regions with self-assessment

Maturity Assessment for Olomouc region, Czech Republic

[Diagram showing assessment metrics and values for Olomouc]
(4) Added Value of ICT Maturity Model
Testimonials from regions

• The B3 maturity model is an effective tool to analyse the state of the art of the context. It enables easy and quick detection of areas of improvement, gaps, strengths. It is a great tool to drive and facilitates multidisciplinary discussions” – Puglia region, Italy

• “This is a very valuable tool, useful for all stakeholders to reveal weaknesses, make comparative evaluations and orientate efforts to the most effective collaborations” – Attica region, Greece

• “This is an easy to use model that is understandable to a broad spectrum of stakeholders and beneficial for interregional and international comparison of integrated care” – Olomouc region, Czech Republic

• “The B3 maturity model gives a clear list of aspirational goals to aspire to, has allowed systematic consideration and could also be considered for assessment at a local level” - Scotland
(4) Publishing the results

**Title:**
A Maturity Model for Adoption of Integrated Care within Regional Healthcare Systems

**Authors:**
John Crawford, Angus McCann, Stuart Anderson, Andrea Pavlickova, Diane Whitehouse, Marc Lange

**Journal:**
Health Policy and Technology (November/December 2015)
Cooperation with other EU projects
AA7 has established relationships with several European projects...
Moving telemedicine from pilot to scale – 18 Critical Success Factors

What is needed to deploy telemedicine?
The right context, involvement of the key people, good planning and sound “running” of the process. The Momentum Blueprint, published today in its final version, offers critical success factors and performance indicators that help decision makers to scale up healthcare services from a distance through information technology. And it delivers a self-assessment toolkit that helps an organisation determine whether it is “ready” for telemedicine deployment. The Blueprint and supporting documents are available at http://telemedicine-momentum.eu.

The Blueprint comes from the Momentum project, a three-year initiative of European eHealth stakeholder associations and competence centres that was co-funded by the European Commission. Although Momentum ended in January 2015, key experts and contributors to Momentum will remain available to provide support on how to use the Momentum toolkit, and can be contracted to help an organisation or region deploy telemedicine and share their experience.

“Telemedicine deployment is not rocket science: it will work if the critical elements are in place” says Marc Lange, coordinator of the Momentum project and General Secretary of EHTEL. “The Blueprint distils the key learnings from the Momentum project: it can be used as a kind of cookbook or set of guidelines for doing telemedicine scale-up.”

The Blueprint has two purposes:
(1) it is a holistic European reference document for developing a telemedicine service framework, and
(2) it is a toolkit for capacity-building among telemedicine doers.

Eighteen critical success factors have been identified and validated on the basis of the practical experience gained by telemedicine doers with projects that were successfully transferred from a pilot stage to their deployment in routine care and on a large scale. The description of each critical success factor is followed in turn by a relevant set of performance indicators. These indicators can be used to assess the readiness of an organisation to deploy telemedicine. Towards a graphical representation of the 18 critical success factors of Momentum, the Shamrock model...
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Andrea.Pavlickova@nhs24.scot.nhs.uk

EIP on AHA Website
http://ec.europa.eu/active-healthy-ageing