CONFERENCE

“Integrated services: organizational healthcare models in the framework of chronic diseases”.

INCA Project Experience:
Improving Efficiency and Quality of Care

26-27 March 2018
Turin, C.so Regina Margherita, 174

Miguel Alborg
IDI EIKON – INCA Project Coordinator
1. The INCA Project

CIP ICT-PSP Programme
January 2014 – June 2016
Coordinator: IDI EIKON
4 Member States
5.1 €M – 50% co-financed
Market Validation
2. INCA Goals: Integrated Care

1. Proactive Care
   - “Breaking Silos”
   - Reduce Latency for Social
   - Optimize resources usage

2. Efficiency
   - Homogenize Care so plans are easier to deploy
   - Transfer Care from Hospital to Home
   - More encounters with same resources
   - More and better data on patient’s condition

3. Quality of Care

Adapted from European Innovation Partnership on Active and Healthy Ageing
3. INCA Integrated Care Platform

- Multi-disciplinary team
- Patient-Centric
- Several organizations involved
- Care Co-ordination

- Integrated Care Pathway Engine
- Actionable Care Calendar (Clinical Decision Support System)
- Wizard-based easy-to-use interfaces
- Team Performance Dashboards and Socio-Economic Impact KPIs
- “Bring your own device” + Cloud (browser, Tablet, Smart Phone)
- 100% guaranteed bi-directional Interoperability
4. INCA Achievements

900 Patients / 1 Organization / 1 Disease (2016)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Before</th>
<th>After</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>1.19</td>
<td>0.60</td>
<td>49.57%***</td>
</tr>
<tr>
<td>Re-admissions</td>
<td>0.16</td>
<td>0.12</td>
<td>25%**</td>
</tr>
<tr>
<td>Length of stay</td>
<td>6.24</td>
<td>5.05</td>
<td>19.07%**</td>
</tr>
<tr>
<td>Visits card.</td>
<td>2.41</td>
<td>1.69</td>
<td>29.27%***</td>
</tr>
<tr>
<td>ER visits</td>
<td>1.82</td>
<td>0.94</td>
<td>47.25%***</td>
</tr>
</tbody>
</table>

N = 120

*P < 0:1

**P < 0:05

***P < 0:01

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cost</th>
<th>Difference</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>207.85</td>
<td>0.59</td>
<td>122.13</td>
</tr>
<tr>
<td>Visits card.</td>
<td>23,88</td>
<td>0.72</td>
<td>17,19</td>
</tr>
<tr>
<td>ER visits</td>
<td>159,05</td>
<td>0.86</td>
<td>136,78</td>
</tr>
<tr>
<td>TOTAL</td>
<td>276,10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Internal costing, Manises Department of Health

SURVIVAL VALUES

<table>
<thead>
<tr>
<th>Variable</th>
<th>Treatment</th>
<th>Control</th>
<th>Difference</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>73 Days</td>
<td>89,7 %</td>
<td>83,0 %</td>
<td>0,59</td>
<td></td>
</tr>
<tr>
<td>146 Days</td>
<td>79,5 %</td>
<td>72,7 %</td>
<td>0,15</td>
<td></td>
</tr>
<tr>
<td>229 Days</td>
<td>68,1 %</td>
<td>64,8 %</td>
<td>0,21</td>
<td></td>
</tr>
<tr>
<td>292 Days</td>
<td>62,5 %</td>
<td>48,9 %</td>
<td>0,04</td>
<td></td>
</tr>
<tr>
<td>365 Days</td>
<td>52,9 %</td>
<td>46,5 %</td>
<td>0,06</td>
<td></td>
</tr>
</tbody>
</table>

N = 273

Chisq (5,1)  p=0,0251

Independent Assessment Study
Universidad Pompeu Fabra (Barcelona – Spain)

Hospital Admissions: -49%
Hospital Re-Admissions: -25%
Hospital Length of Stay: -19%
Visits to Specialist: -29%
Visits to Emergency: -47%
Costs: -250.000 €
Patient’s Satisfaction: +28%
5. INCA Lessons Learnt: PROs

Real “Breaking Silos” Integration of Care

MDG Teams show results, Care Transfer happens, Social Care Providers can participate since the first moment

Patient’s Continuity of Care is guaranteed

Care Pathways flow across stakeholders and self-adapts in real time; Interoperability with pre-existent systems happens

Patient Engagement with Self-Managing its condition

Active Role, “External” Motivation, access to Information, Education, Adherence
5. INCA Lessons Learnt: CONs

Managing Cultural Change

Big Teams, Many Leaders, Unbalanced work loads, Reluctance to change

Pragmatic Vision vs. Ideal Vision

“Once for all” corporative project vs. Demonstrating achievements
6. INCA Good Practice Example: Manises Hospital

Managing Cultural Change

A reality

A Goal

Our population should live longer, healthier and happier

A Conviction

• Chronic Patient Care is to be managed directly from Primary Care
• Chronic Patients use to stay mostly at home and most of them are autonomous
• So, Chronic Care strategies should rely on Primary Care, in close relation with whatever other health and social stakeholders

Support Tools

• INCA Platform
• “Liaison” Internist Doctor at Primary Care
• Home Hospital directly managed from Primary Care
6. INCA Good Practice Example: Manises Hospital

Pragmatic Vision vs. Ideal Vision

<table>
<thead>
<tr>
<th>Question</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>¿Toma la medicación pautada? (*)</td>
<td>Sí</td>
<td>No</td>
</tr>
<tr>
<td>Ha aumentado 1 Kg de peso en un día o 3 Kg en una semana? (*)</td>
<td>Sí</td>
<td>No</td>
</tr>
<tr>
<td>¿Tiene las piernas más hinchadas de lo habitual? (*)</td>
<td>Sí</td>
<td>No</td>
</tr>
<tr>
<td>Auscultación C-P (*)</td>
<td>70 ppm, no ruidos,</td>
<td></td>
</tr>
</tbody>
</table>
7. Sustainability: INCA after INCA Project

Commercialisation

Spain, Europe and LATAM

Pre-Commercial Procurement and PPIs

Standardization Seal for Innovative Services

Platform Expansion

Adding more Value: Health Outcomes management, Big Data & Deep Learning, CDSS, Predictive Algorithms...
8. Next Steps

Geographic coverage of the EIP on AHA Reference Sites

Reference Sites

EIP on AHA
THANKS FOR YOUR ATTENTION

• More Info?

  http://www.in3ca.eu

  http://www.idieikon.com/adsum

  adsum@idieikon.com