Integrated Person-Centric Care

- Containing costs while improving outcomes from coordinated social and health care services has been identified as a societal grand challenge for the 21st century
- Supporting the most vulnerable individuals requires a holistic view across stakeholders systems, integrating individual needs, key aspects of their environment, household and communities where they belong
- This person-centric care model is key to provide analytics insights to reduce the burden of care coordination for high cost-high need patients (elderly, homeless, etc.)

A 360-degree person view

Enable a social worker to assess the situation of an individual and family using a combination of vulnerability indexes (VI) and contextual exploration

- Expert based VI are used to understand the degree of complexity regarding the six core needs of an individual
- Semantics and ontology models for social & health care are used to ground the VIs and obtain the dynamic evidences across sources
- Data is federated on demand, exposing only the required information across systems according to the models of choice
- Contextual exploration is used to surface relevant information no directly covered by the VIs, by following meaningful relationships across the data

Care planning and delivery

Linked-Data technologies are used for making complex cross-domain information accessible, and facilitating analytics to obtain the care plans with the most efficacy:

- Modeling of household care needs based on expert assessment
- Building a Safety Net from open data ingested and lifted into a knowledge-graph, with providers and services to cover the needs of vulnerable populations (hospitals, shelters, meals, community prog., etc.)

- Supporting data-driven decision making to deliver timely, customized information for a team of care workers on the field, using mobile and wearable technologies to facilitate a coordinated on-line response

References

- A Linked Data Approach to Care Coordination. Spyros Kotoulas, Vanessa Lopez, Marco Luca Sbodio, Martin Stephenson, Pierpaolo Tommasi, Pol Mac Aonghusa. Hypertext 2014
- Link2Outcome: http://researcher.watson.ibm.com/researcher/view_group.php?id=5034