



Informed Health
Technologies

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Medical Hub®

*Optimizing health by creating a secure
social network of care providers*

Proposed Solution: IHT Medical Hub®

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Detect



Analyze



Alert

Secure Social Networking Platform

- HIPAA-compliant care collaboration with audit trails and data provenance

Data Integration

- Collection and harmonization of data from electronic health records, wearables, devices and sensors
- Semantic meaning maintained

Rules engine

- Simple clinical interface to configure rules reflecting clinical care plan

Alert System

- Includes all members of the social circle
- Follows an alert tree until there is a response
- Can be performed according to recipient preference – text, email, voice



The Medical Hub® will support consumer-mediated health data exchange by implementing

- HEART WG recommendations
 - OAuth 2.0 to enable patients to give authorization for data sharing
 - UMA to set the scope of data being shared
 - OpenID Connect to simplify the authorization process
- FHIR APIs to connect to digital health records
- Commonly used clinical ontologies (e.g. SNOMED)

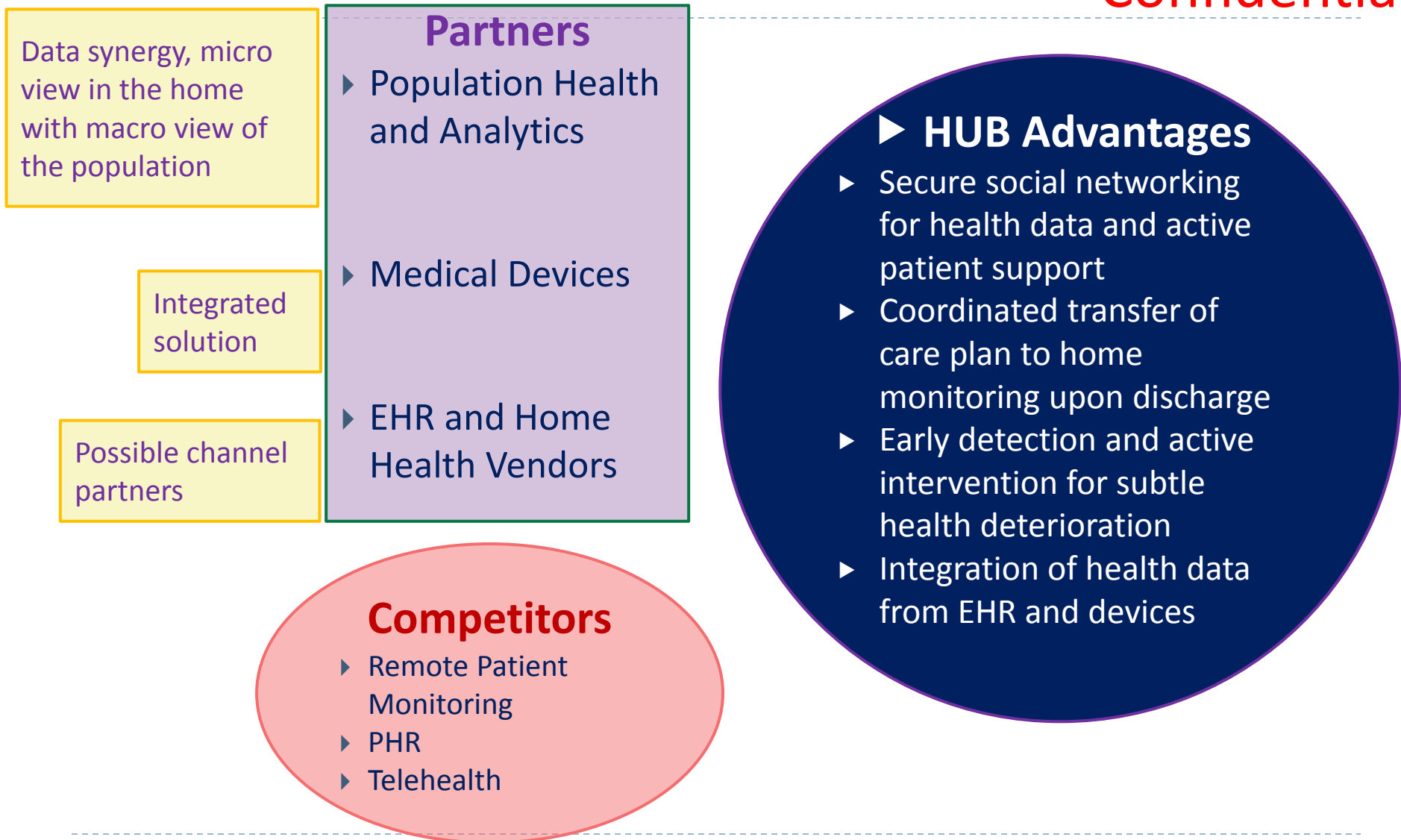
- **Improved engagement** and communication with the patient and family
- **Reduced clinical time** spent on non-emergent issues that could be managed by the patient and family
- **Faster response** when patients fail to perform recommended therapy
- **Earlier recognition** of subtle deterioration in health status



Better Health, Lower Costs

Competitive Landscape

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Use Case: Meet Sarah Sullivan

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- 82 years old, lives alone
- Has one daughter
- In the hospital for heart failure 3 times in the past 2 months

Vibrant one day, in an ambulance two days later with trouble breathing

WHY DID THIS HAPPEN?
HOW COULD IT BE PREVENTED?



WHY Sarah ends up in the hospital

- Limited contact with clinicians after discharge
- Challenges following clinical care plan
- Subtle health deterioration that goes unnoticed
- Infrequent communication with anyone about health status
- Small interventions not taken in a timely way to prevent decline

HOW the IHT Medical Hub[®] prevents Sarah's decline

- Coordinated transfer of care plan to home monitoring upon discharge
- Social network - friends, family, clinical caregivers – provides a 360° care communication platform
- Feedback from the Medical Hub with support from family, friends, and caregivers increases engagement
- Sharing of data collected from care plan actions identifies subtle changes
- Early detection and communication leads to early intervention



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Workflow: Connectivity & HIPAA

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The Medical Hub[®] supports FHIR API connectivity

- Active development to connect to Allscripts, Cerner and Epic
- Connectivity to medical devices using third party APIs (by go live)

The Medical Hub[®] supports health data standards

- LOINC, RxNorm, SNOMED
- NPI database

The Medical Hub[®] provides HIPAA compliant security

- Encrypts data in transit
- Employs data provenance and constancy
- Maintains audit trails and access logs
- Encrypts data at rest (by go live)
- Secures form and URL entries



IHT Medical Hub® above and beyond

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The Medical Hub® meets all challenge requirements

- Patient directed data sharing
- Support for HEART WG recommendations: OAuth 2.0, UMA, and OpenID Connect
- HIPAA compliance

The Medical Hub® exceeds challenge requirements

- Data analytics
- Rules based alerting of subtle health deterioration
- Secure messaging
- Integration of patient care plan
- Active engagement of patients and their social network to improve health

