



## Medical Hub<sup>®</sup>

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

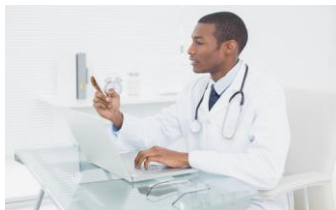
# Proposed Solution: IHT Medical Hub®

## Detect



# IHT

## 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



# Technical considerations

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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)



# Outcomes

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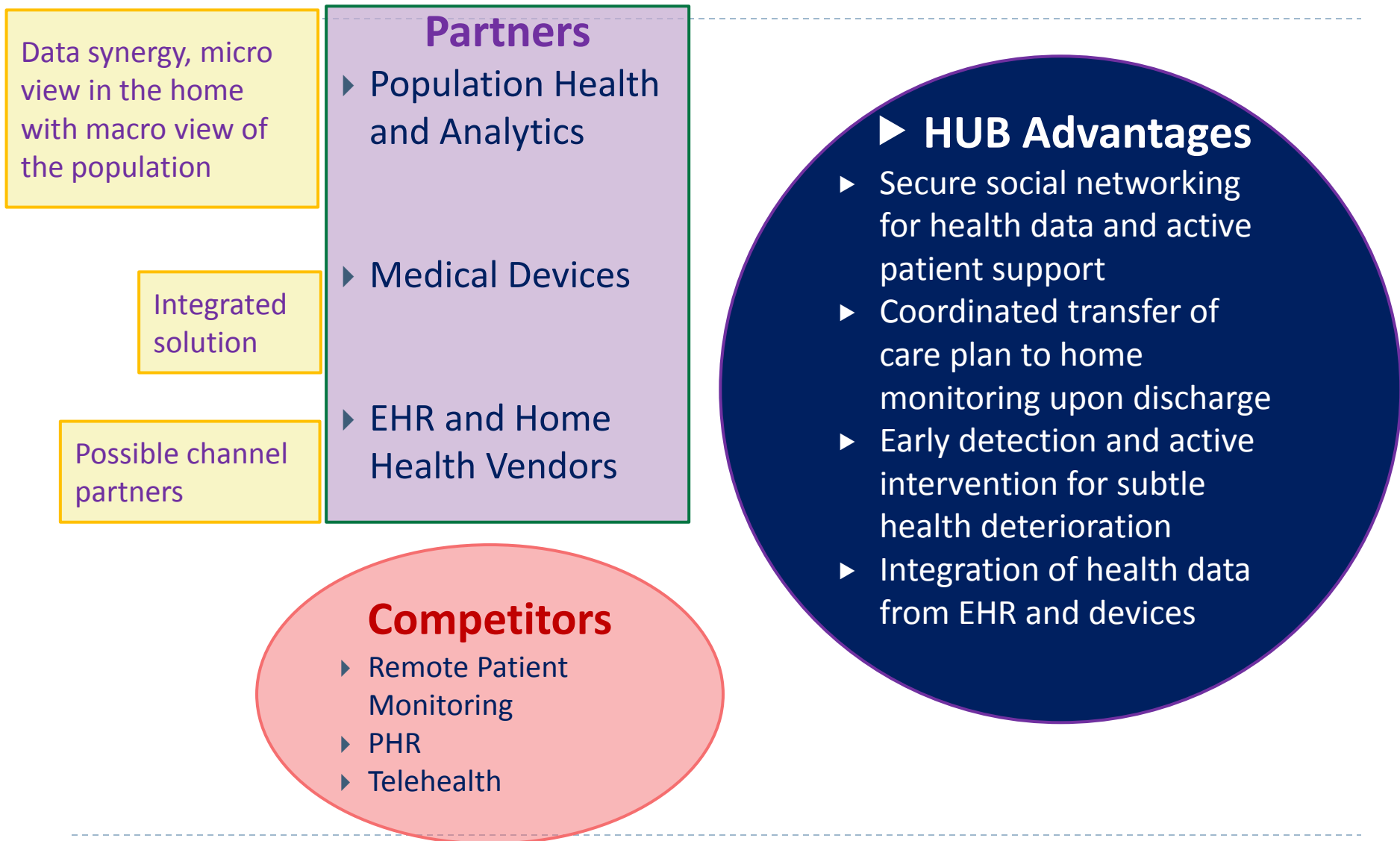
- **Improved engagement** and communication with the patient and family
- **Reduced clinical time** spent on non-emergent issues that could be managed by the patient and family
- **Faster response** when patients fail to perform recommended therapy
- **Earlier recognition** of subtle deterioration in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



**Better Health, Lower Costs**



# Competitive Landscape



# 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?**

# Solution: IHT Medical Hub<sup>®</sup>

## 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<sup>®</sup> 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



## Communication workflow: care plan driven





# Workflow: Connectivity & HIPAA

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## The Medical Hub<sup>®</sup> supports FHIR API connectivity

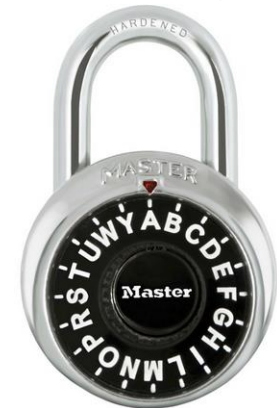
- Active development to connect to Allscripts, Cerner and Epic
- Connectivity to medical devices using third party APIs (by go live)

## The Medical Hub<sup>®</sup> supports health data standards

- LOINC, RxNorm, SNOMED
- NPI database

## The Medical Hub<sup>®</sup> 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

