Healthcare Transformation towards Patient Centric Model

September 14-15, 2017

Forum eHealth Gdańsk

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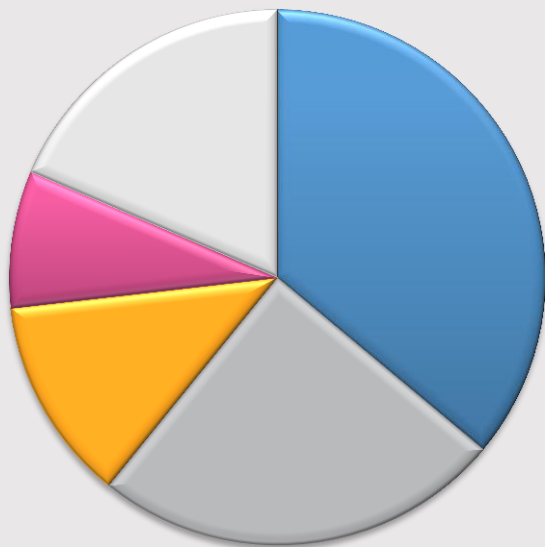HealthCare

HealthCare Challenges
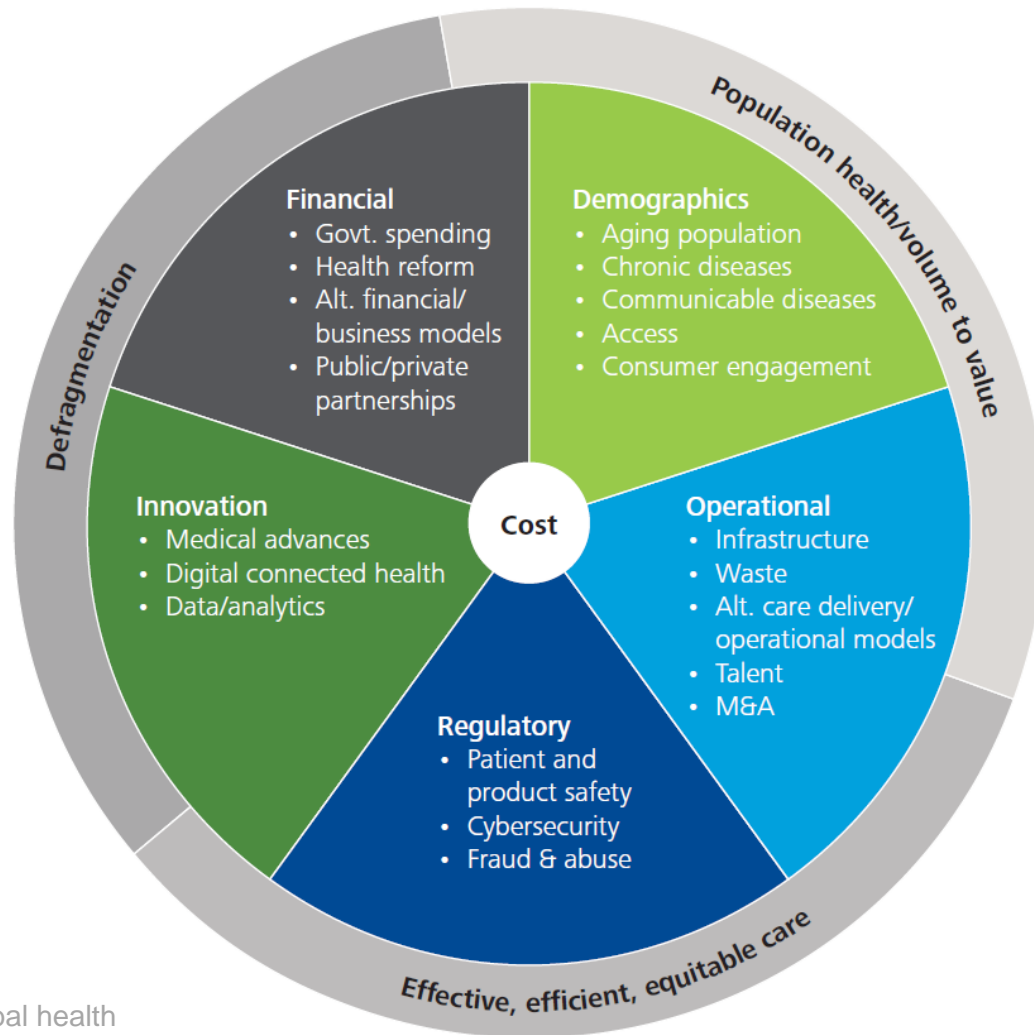
Source: Deloitte, 2016 Global health care outlook (2015), p3

Healthcare is undergoing Transformation…

## FROM

Hospital-Centric Model

Drivers of Model Transformation

- Medical practice focus on **coordinated, collaborative care** across the continuum
- **Standardized care** approaches to reduce care variation
- **Care process redesign** to reduce unnecessary work in all care settings
- **Optimized service distribution** to ensure the right care at the right site
- New **value-based payment models** offer financial incentives
- Industry frameworks: **VALUE STEPS**, **DIAM…..**

TOWARDS

Population-Centric Model

Integrated Care
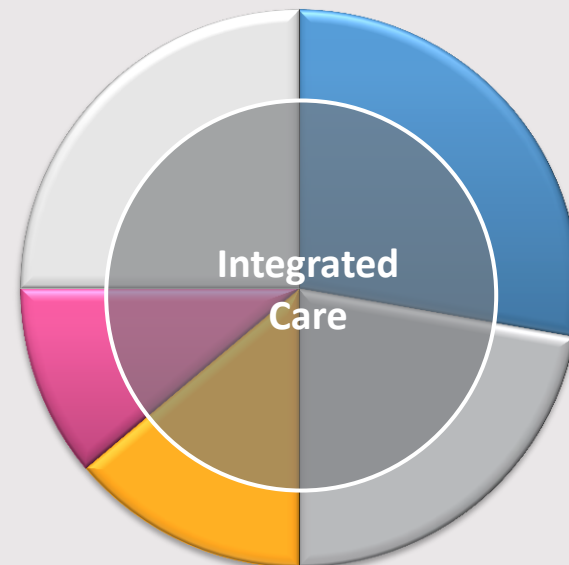
Legend:
- Hospital Services
- Prescription Services
- Physician and Clinical Services
- Home Health and Nursing Home Care
- All Other

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Factors influencing Transformation
— Industry Response

IT Systems supporting many more stakeholders

- IT Systems supporting many more stakeholders
- Continue looking for ways to optimize processes and workflows
- Centralize resources and information to optimize capacity and streamline costs
- Taking on more of the financial risk

Safety concerns

Regulatory scrutiny

Increased competition

Healthcare Reforms

Cost pressure

Care teams

Focused initiatives to:

Improve outcomes
Increase productivity
Enhance value of care

- Must have complete patient images and data to make intelligent clinical decisions
- Need to find ways to work more collaboratively, from anywhere
- Achieving industry adoption/IT-maturity models
- Leverage the latest technology to manage cost and meet future needs

Consolidation

Big data

Older IT systems

Need to maximize benefits from IT investments

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Multispecialty collaboration and enhanced mobility on an IT-centric interoperable platform

Multispecialty Collaboration

- ✓ Expand sharing
- ✓ Enable easy collaboration
- ✓ Improve clinical efficiency
- ✓ Improved multi-specialty team communication

Enterprise Imaging Mobile Workflows

Sharing & Collaboration

Mobile Conferences

Mobile Capture Workflows

Patient

Mobile Reports

- Real-time Communications
- Image Viewing Workflows
- Image Acquisition Workflows
- On the Go Access to Reports

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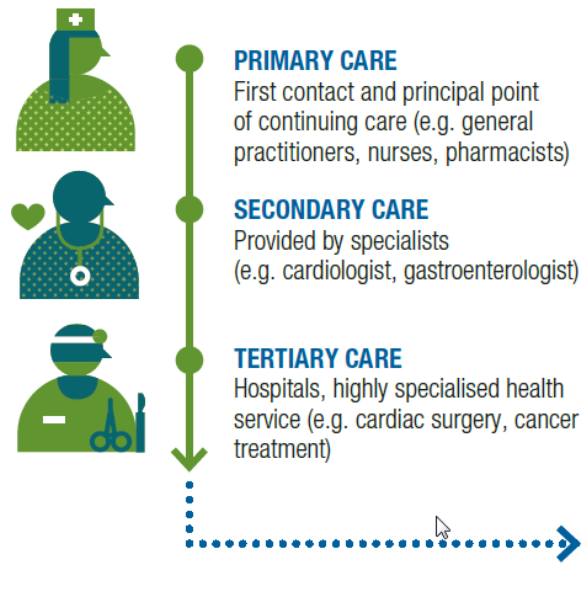
Health Factors – More than health care …

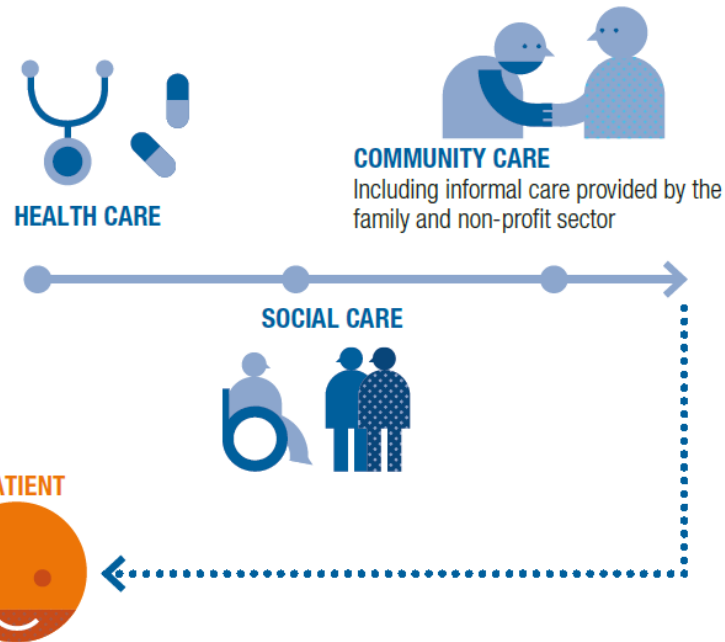The Determinants of Health (1992) Dahlgren and Whitehead

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What is Integrated Care?

INTEGRATED CARE IS THE **COORDINATION OF CARE:**

VERTICALLY, ACROSS THE LEVELS OF HEALTH CARE:

PRIMARY CARE
First contact and principal point of continuing care (e.g. general practitioners, nurses, pharmacists)

SECONDARY CARE
Provided by specialists (e.g. cardiologist, gastroenterologist)

TERTIARY CARE
Hospitals, highly specialised health service (e.g. cardiac surgery, cancer treatment)

HORIZONTALLY, ACROSS DIFFERENT TYPES OF CARE DELIVERY:

HEALTH CARE

COMMUNITY CARE
Including informal care provided by the family and non-profit sector

SOCIAL CARE

PATIENT

SOME RELEVANT FEATURES:

✔ Shift from reactive service delivery (after adverse health events, e.g. a cardiac arrest) to preventive and proactive care (prevent and manage chronic conditions, e.g. maintain healthy blood pressure / cholesterol level)

✔ Patient-centred approach and active involvement of the patients in understanding and managing their own diseases (patient empowerment)

✔ Move from institutional to community / home based care

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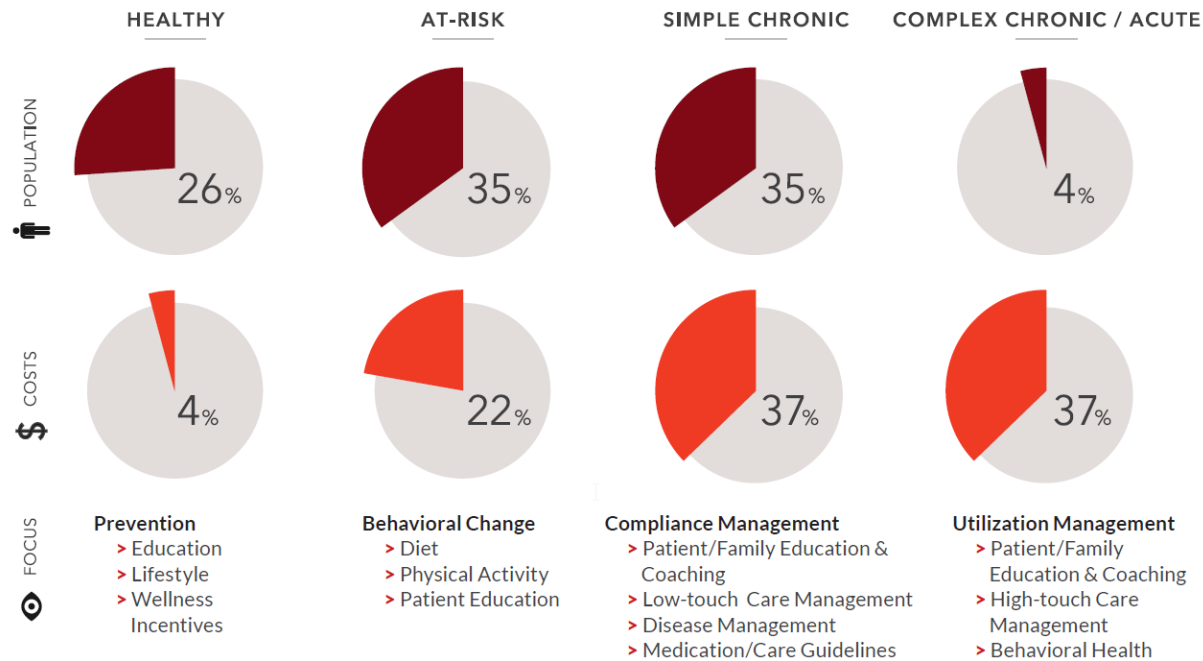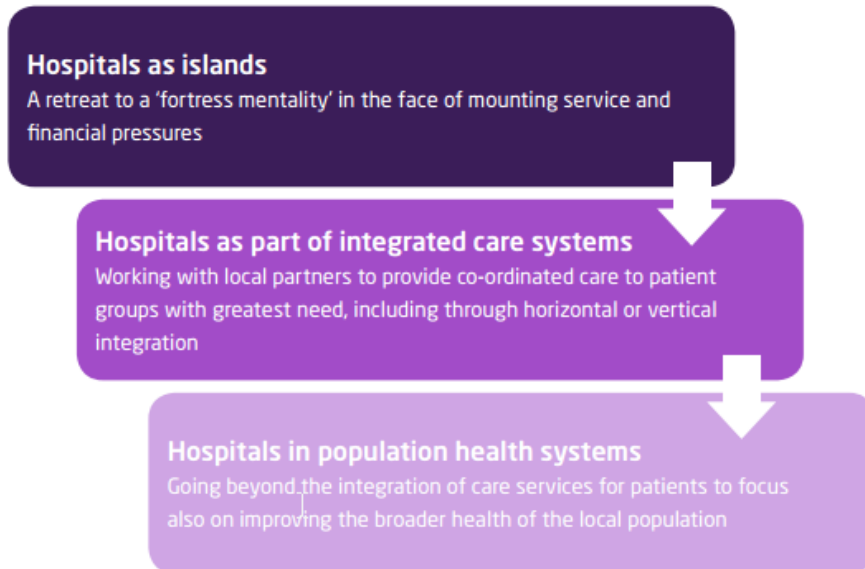HealthCare

The case for Integrated Care Solutions

Figure 2.3: Stratifying Population for Cost and Care Models

The role of acute hospitals in Integrated Care

- 2015 study in UK, potential impact of integrated care on the role of acute hospitals:
  - delivering more care beyond the hospital walls
  - the future size and shape of acute hospitals
  - an increased role in prevention and population health
  - new organisational models with local partners.

- Source: King's Fund (2015), Acute Hospitals and Integrated Care. From hospitals to health systems
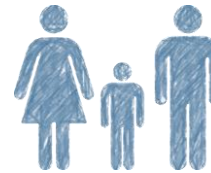
Hospitals as islands
A retreat to a 'fortress mentality' in the face of mounting service and financial pressures

Hospitals as part of integrated care systems
Working with local partners to provide co-ordinated care to patient groups with greatest need, including through horizontal or vertical integration

Hospitals in population health systems
Going beyond the integration of care services for patients to focus also on improving the broader health of the local population

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The Big Integrated Care IT Challenge

Acute care

GP Practices

Community care

Social care

**Urgent care**

Analytics and Research

Pharmacy

Challenges

- ⊙ **Each Healthcare provider system has its own system of choice**
- ⊙ **Silo's of Patient's information**
- ⊙ **Proprietary standards**
- ⊙ **Political and Juridical challenges in sharing data**
- ⊙ **IT budget Cost Pressures**
- ⊙ **Coordination workflows**

Impact

- ‼ **Lack of Complete Patient Records**
- ‼ **Duplication of Procedures and Activities**
- ‼ **Prohibits transformation of delivery**
- ‼ **Expensive to maintain**

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The (Classical) Peer to Peer Health IT Solution

Acute care

Community care

Social care

GP Practices

URGENT CARE

Pharmacy
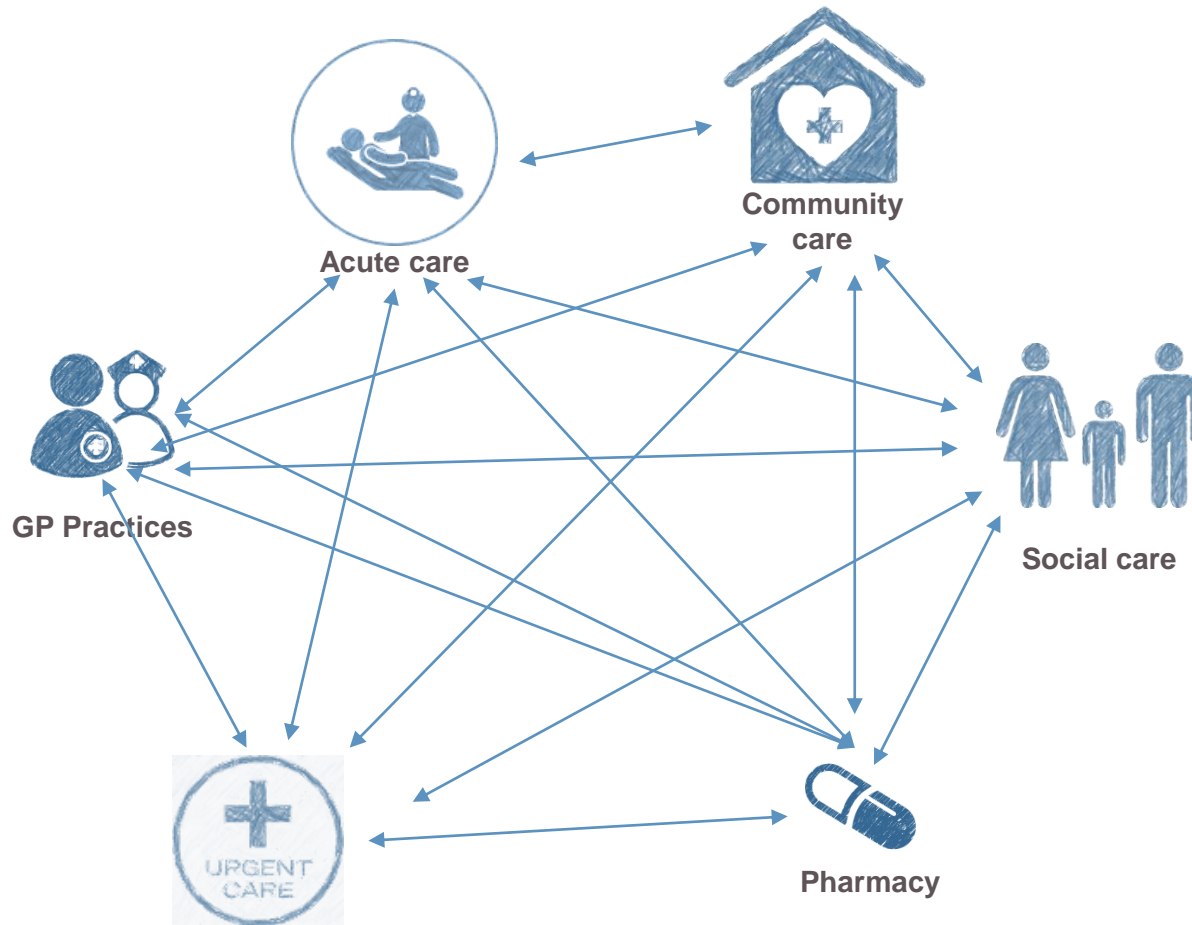
Characteristics

- ◎ **Point to Point interfaces**

- ◎ **Combination of standards based and non standards based**

- ◎ **Duplication of manpower and resources to build, validate and maintain P2P interfaces**

- ◎ **Not always Real-time and not always up-to-date**

- ◎ **Delegate Patient Consent and Privacy Management to each supplier**

- ◎ **No Platform**

Impact

- ‼ **Large Capital Investments to implement and high Operational Costs to maintain**

- ‼ **Prohibits Transformation of Delivery Models in the Digital Age**

- ‼ **High Costs to implement coordinated care and mobility**

- ‼ **No Central Repository for population health or care coordination**
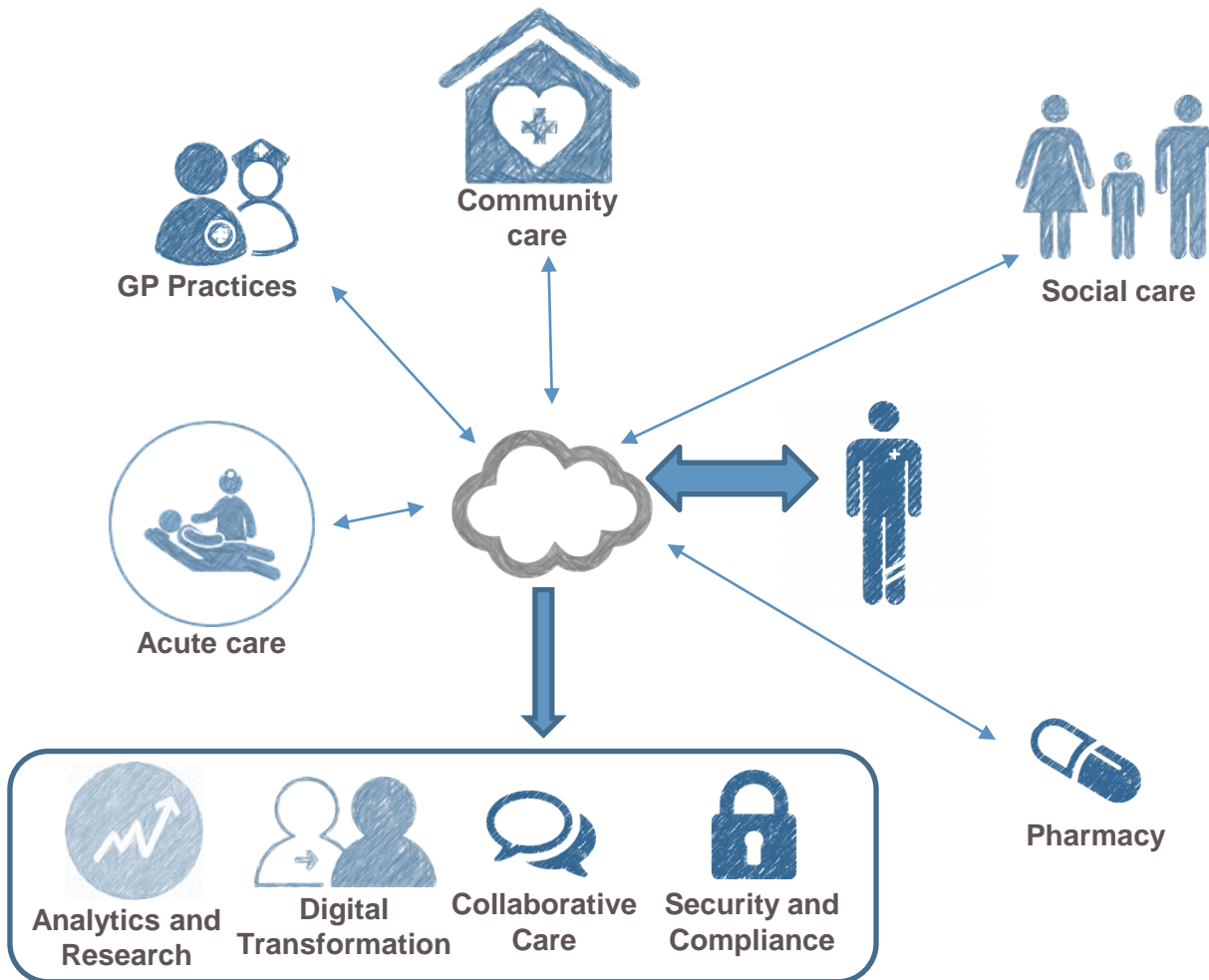
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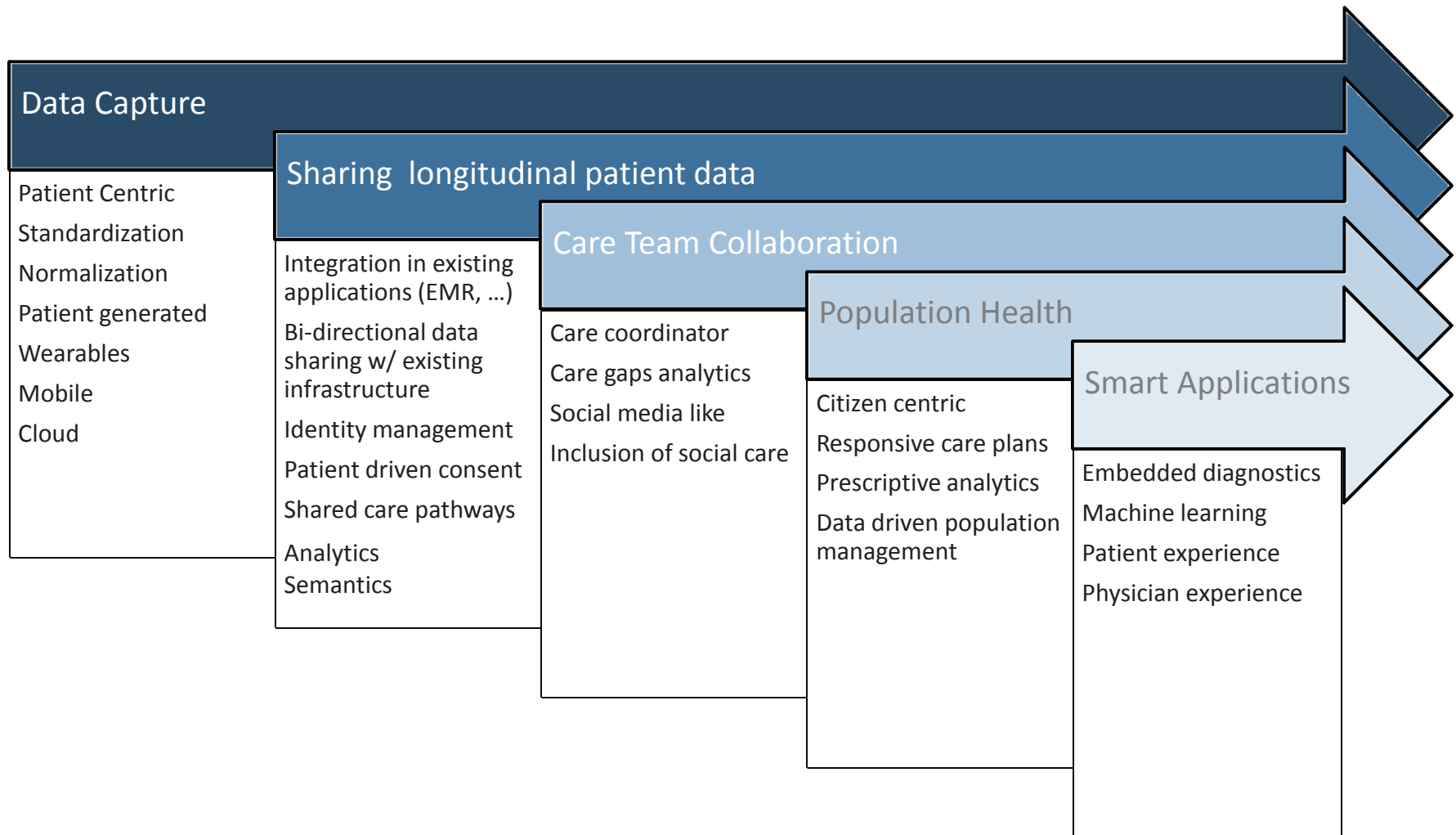# The Neutral IT Platform for Care Transformation

Characteristics

- Neutral, Open Standards based platform

- Aggregated Health records with centralized consent and compliance

- Support multiple standards

- Data and Care Orchestration tools for Micro applications

- Provide access to the patient's longitudinal record embedded within each entity's system

- FHIR based Open APIs, Smart Notifications, Workflow Engines and CEP
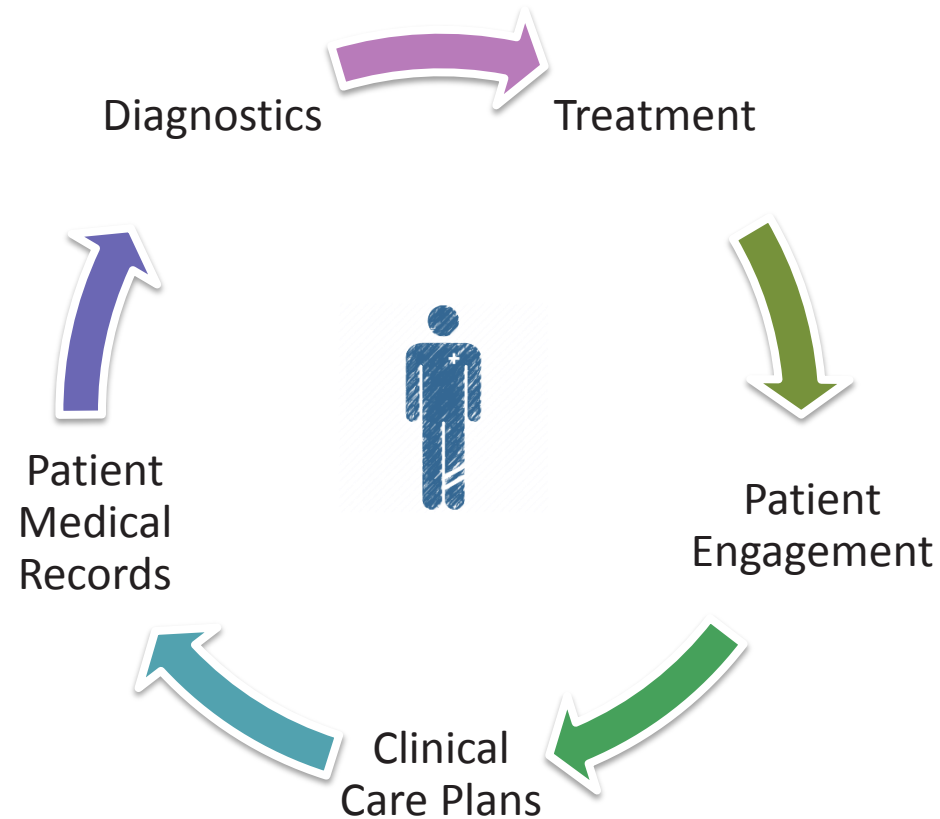
Impact

‼ Vendor Neutral and interchangeable Platform

‼ Implement digital transformation strategies without underlying system complexities

‼ Aggregated Clinical Data

‼ Patient-centric design

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Technology support for a new care paradigm

Data Capture

Patient Centric

Standardization

Normalization

Patient generated

Wearables

Mobile

Cloud

Sharing longitudinal patient data

Integration in existing applications (EMR, …)

Bi-directional data sharing w/ existing infrastructure

Identity management

Patient driven consent

Shared care pathways

Analytics
Semantics

Care Team Collaboration

Care coordinator

Care gaps analytics

Social media like

Inclusion of social care

Population Health

Citizen centric

Responsive care plans

Prescriptive analytics

Data driven population management

Smart Applications

Embedded diagnostics

Machine learning

Patient experience

Physician experience

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Integrated Care Cycle

BENEFITS

ZINTEGROWANA OPIEKA ZDROWOTNA

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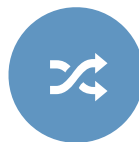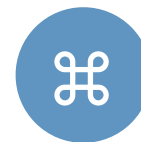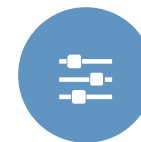
Zdalny dostęp do wyników i opisów

Konsolidacji i integracja danych pacjenta

Zoptymalizowany i wydajny OBRAZOWY przepływ pracy

Współpraca multidyscyplinarna w REGIONIE

Dostęp do OBRAZÓW dla wszystkich specjalności

Zdalne konsultacje nagłych przypadków

Zwiększona skutecznośc w pre-postdiagnostyce

Kontrola procesu leczenia PLANY OPIEKI

Rezygnacja z CD/DVD

Zwiększenie efektywności dostępu do historii pacjenta

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Obniżenie Kosztów Leczenia

Możliwość zdalnego monitorowania pacjenta

Ograniczenie liczby powtórzonych badań i możliwości utraty danych

Szybsza diagnostyka

Możliwość zlecania badań i wizyt w innych ośrodkach

Uproszczona Implementacja

Optymalna unifikacja środowiska IT

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PACJENT

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☐ Możliwość diagnostyki w miejscu zamieszkania (POZ, lokalny szpital, dom)

☐ Zmniejszenie kolejki do lekarza i czasu oczekiwania na kontakt z lekarzem specjalistą

☐ Większe bezpieczeństwo (karta pacjenta zawsze „pod ręką")

☐ Możliwość samokontroli oraz „samodzielnego" realizowania planu leczenia/rehabilitacji

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