Smarter Care: The Impact of Social Determinants on Health
Ljubisav Matejevic

Global Market Development Executive
IBM Curam  Smarter Care

Founder of the Global E-Health Forum

Member of the IBM Cúram

Head of the section of Health IT/ Health and Social Care Coordination of the Koch – Mechnikov Forum (KMF)
There is a hidden message in this picture
Same message is hidden here in London
We live in the same city but we have different life expectancies – Why is this so?

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

*WHO definition of Health, 2003*
People with multiple health and social needs are high consumers of services, and drive high costs. This population offers a tremendous opportunity to understand the individuals’ priorities and needs, and to craft a care plan that is more effective at a significantly lower cost.

A balanced approach has focus across human needs - striving for people’s “wellness” and a holistic approach to care

- food
- shelter
- health
- education
- income

People, not programs
Medical systems treat people and then send them back to the socio-economic conditions that made them ill.
Care Coordination resolves some of the fundamental problems that stand in the way of driving better outcomes at a lower cost.

Support a person’s medical and social needs using an outcome-oriented care approach.

**Common challenges addressed by Care Coordination**

- Managing information across multiple healthcare organizations, social care organizations and touch points.
- Ensuring that adequate social care is provided to:
  - Eliminate unnecessary initial admissions.
  - Reducing re-admissions.
- Identifying patients that require high level of care or intervention:
  - Analyzing large, complex data sets.
  - Population health management.
- Focus on most effective procedures, tests, treatments for value for money and to eliminate waste.
The way to change? A focus on value, **coordinated around the individual** and integrated into our communities

### Core Principles of Prior System
- Emphasis on expensive treatments and incremental improvement
- Episodic treatments
- Myopic focus on capacity for acute care
- Use of volume-based reimbursement models
- Patients are responsible for coordinating their own care
- Care varies by venue and clinician
- Quality is determined by the provider

### Evolving Health Systems
- Focus on value, coordinated around individuals, integrated into communities
- Emphasis is on proactive preventative care to meet health needs, personalized to the individual
- Payment based on value and outcomes
- Care is standardized according to evidence-based guidelines
- We measure quality and make rapid changes to improve it
- Holistic approach that combines social and clinical needs
We have equated health almost exclusively with the amount and quality of medical care.

Source: Sowad, Barbara J. A call to be whole: the fundamentals of health care reform, CT. 53
Some Examples of the determinants of health

Relationship between an individual’s health and employment

In the US, studies have shown that the odds for return to full employment drop by 50 percent after six months of absence.

In Europe, overall, death rates for men increased by 44 percent during the first four years that followed a job loss compared with the rates of a control group.

Commonwealth Fund National Scorecard on U.S. Health System Performance, 2011
Leaders are uniting to support new drivers of quality care

**LEARNING**
Analyze information and interactions to guide more informed decisions and to continually improve knowledge-based planning

**INTERVENTION**
Identify and influence individuals and populations, and recognize intervention opportunities

**KNOWLEDGE**
Drive evidence-based and standardized care planning

**COORDINATION**
Deliver care and monitor progress across clinical and social requirements

**COLLABORATION**
Assess and engage individuals and stakeholders to drive individualized care plans

**WELLNESS**
Applying new insights from social and clinical analysis to inform care protocols and drive better outcomes

Segment populations by risk profiles

- Healthy low risk
- At risk
- High risk
- Early clinical symptoms
- Active disease

Inform care approaches with evidence

Prevention

Educate and engage to change attitudes and behaviors to prevent the onset of health issues

- Plan evidence-based wellness and vaccination programs
- Fix inadequate housing to prevent asthma

Early intervention

Promote routine screening and healthy lifestyles to defer disease onset and manage risk

- Predict disease onset to intervene earlier
- Enroll individuals and families at high risk for diabetes in lifestyle programs

Care Management

Deliver the right care services to support the individual with the right programs and treatments to improve quality of life and optimize resource use

- Prevent admissions and readmissions through alternative care environments
- Provide proactive support for return to work programs

Examples

- Applying new insights from social and clinical analysis to inform care protocols and drive better outcomes
IBM Smarter Care uncovers valuable insights into lifestyle choices, social determinants, and clinical factors...

**Lifestyle**
choices have direct impact on an individual’s mental and physical wellness

**Social**
determinants such as where one is born, grows, lives, works and ages have direct impact on an individual’s overall health and well being

**Clinical**
factors such as specific medical symptoms, history, medications, diagnoses, etc are indicators of an individual’s health
The path forward

... enabling holistic and individualized care to optimize outcomes and lower costs

IBM Smarter Care

Lifestyle  Social  Clinical

Wellness

Engage

Coordination
Engage, convene, collaborate and cross boundaries to deliver an integrated plan to achieve optimal outcomes and lower costs

Understand

Analytics and Cognitive Computing
Gain understanding through data-driven insights that enable action, with greater visibility into outcomes and cost

Know

Foundation
Know individuals and populations; recognize intervention opportunities to apply evidence-based and standardized care planning
IBM integrated portfolio for Smarter Care

**Coordination**
- ECM - PCI
- Care identification
- Care planning
- Care delivery
- Outcome evaluation

**Analytics and Cognitive Computing**
- ECM - PCI, Partners
- Population analytics
- Diagnostic support
- Care pathways
- Operational reporting

**Cognitive computing**

**Foundation**
- WebSphere
- “Single view” customer EMPI (MDM)
- InfoSphere
- BI, reports and dashboards
- SPSS
- Portals, mobile and collaboration
- ECM
- Remote monitoring and medical device connectivity
- Paper and Fax capture, conversion and extraction

Comprehensive global consulting, technology, infrastructure and managed services
Cúram Solution For Care Management

**Identification**
- Identify Risk via Triage & Intake or Population Analytics
- Establish & Verify Individual Assessment
  - Assess circumstances, i.e. clinical, behavioral health, daily living
  - Evaluate severity to determine response

**Care Planning**
- Build care plan activities, objectives, outcomes
- Engage care team, and track progress collectively

**Care Delivery**
- Locate care providers by specialization, location.
- Engage them automatically into the care team

**Outcome Evaluation**
- Measure program success and evaluate stakeholder performance to inform future actions and improvements

Pilot implementations in -
- **Catalonia, Spain** around Chronically ill individual
- **Miami Dade county with Otsuka** to deliver a mental illness care coordination platform
Results of the smarter care approach

The “Camden Coalition of Healthcare Providers” in the US focuses on “hot spots,” places with a high density of people with complex medical and behavioral needs.

The scheme resulted in:
- Emergency visits were reduced by 32.5%
- Impatient visits were reduced by 56.5%
- Total charges reduced by 56.3%.

The “Partnerships for Older People Projects” in the UK that brought about an integrated approach to health and social care:
- Reduced overnight hospital stays by 47%
- Reduced attendance at accident & emergency departments by 29%
- Reduced out-patient appointments by 11%

Preliminary data from “New York’s Medicaid Health Home Program” shows:
- that clients in this program for at least two years experienced a 45% reduction in the number of hospital admissions
- 15% decrease in emergency room visits, compared with two years prior to enrolment.
Thank you!

Ljubisav.Matejevic@de.IBM.com