Reshaping Health Care in the Face of Disruption

CIGS Health Reform Symposium

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Who am I?

Jefferson Health

Thomas Jefferson University

6,100 physicians/practitioners

7,400 nurses (full/part time)

40+ outpatient and urgent care locations

Over 4.5 million patient interactions annually

160+ Graduate & Undergraduate programs

64,500 Alumni

8,400 Students (full/part time)

over $136 million in public/private research funding

17 NCAA Division II Teams

1,000 patents for new drugs, software innovations, medical devices and diagnostic tools

Nationally ranked in emergency management, fashion, graphic design, interior design, occupational therapy, physician assistant, primary care, research and strategic leadership

U.S. News & World Report has ranked Jefferson (Philadelphia University + Thomas Jefferson University) among the region’s Most Innovative and Best Value Universities
Japanese Gardens
Ecosystem of Health Care

- Robust knowledge base
- Clinical skills
- Professionalism
  (Bushido of medicine)

The Doctor
Sir Luke Fildes
1891, Oil & Canvas
Healthcare in the 21st Century
Healthcare in the 21st Century Disruptors

- Changing Populations
- Shared Governance in Care
- Innovation vs. Empathic Care
- Competing & Exponential Information
- Fragmented Healthcare & Limited Resources
- Patient Trust & Safety

High Quality Outcomes; Patient Safety; Stellar Patient Experience; Affordable Cost

“Triple Aim” – Donald Berwick, MD

Nimble, Engaged, Integrated Healthcare System
- Patient-Centered
- Responsive to changing landscape
- Ensures empathic, compassionate care
- Delivers high quality care at an affordable cost
Healthcare in the 21st Century Disruptors: Exponential Expansion of Knowledge

Medical Research / Knowledge doubling every 3.5 Years...

1950
50 years

1980
7 years

2010
3.5 years

19x Increase in genomic knowledge...

Source: National Institutes of Health, U.S. National Library of Medicine ("Challenges and Opportunities Facing Medical Education" (Dersen, Peter) Transactions of the American Clinical and Climatological Association (1/10) * Based on cumulative number of published medical citations on PubMed, **Based on peer-reviewed article on challenges in medical education, Internet trends 2017 Mary Meeker May 31, 2017

halcyongroup.eu/digital-health-summit-schedulemarch-6th-7th-2019berlin-germany
Healthcare in the 21st Century Disruptors: Non-Health Care Innovation
Healthcare in the 21st Century Disruptors: Non-Health Care Innovation

1999
• Don’t meet people from the Internet
• Don’t get into strangers’ car

2019
• Summon strangers from the Internet, with sole purpose of getting into their car

Comfort & Caution
Healthcare in the 21st Century: Disruptors

- Changing Populations
- Innovation vs. Empathic Care
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Disruptors
Healthcare in the 21st Century: Reshaping the Delivery of Health Care

• High quality care at an affordable cost (“triple aim”)
• Personalized yet equal
• Valued-based approach
• Wellness model
• Ambulatory and virtual services
• Coordination of care
• Embrace innovation cautiously
• Augmented (not artificial) intelligence
• Preservation of human touch
Healthcare in the 21st Century: Reshaping Approach to Delivery of Health Care

- Healthy
- Acute Illness
- Chronic Illness
- Populations

- Care Coordination
- Case Management
- Care Management
- Systems Approach
What is Population Health?

Population health is defined as “the health outcomes of a group of individuals, including the distribution of such outcomes within the group.”

(Kindig & Stoddart, 2003)

Population health “is comprised of three main components: health outcomes, health determinants, and policies.”

(Nash et al, 2016)
Why is Population Health Important?

“Population health brings significant health concerns into focus and addresses the way that resources can be allocated to overcome problems that drive poor health conditions in the population.”

(CDC, 2019)

A Population Health Schematic

Health outcomes and distribution in a population (dependent variables)

Patterns of health determinants over the life course (independent variables)

Policies and interventions at the individual and social levels

(Kindig & Stoddart, 2003)
Healthcare in the 21st Century: Reshaping the Delivery of Health Care

The expanding digital health landscape includes products such as:

- **Mobile Health (mHealth)**
  - Examples include: Wellness, fitness trackers, and nutrition apps
  - Consumer health information
  - Medication adherence apps

- **Digital Therapeutics**
  - Digital therapeutics deliver evidence-based therapeutic interventions to patients to prevent, manage, or treat a medical disorder or disease.
  - Examples provided on page 6.

- **Health Information Technology (HIT)**
  - Examples include:
    - Electronic medical record systems
    - Electronic prescribing and order entry
    - Consumer health IT applications

- **Devices, Sensors, and Wearables**
  - Examples include:
    - Wearable and wireless devices
    - Biometric sensors
    - Diagnostic products

- **Personalized Healthcare**
  - Examples include:
    - Patient reported outcomes
    - Predictive analytics
    - Clinical decision support

- **Telehealth**
  - Examples include:
    - Telemedicine virtual visits
    - Remote patient monitoring
    - Remote care programs

Sources provided on page 14.
Healthcare in the 21st Century: Skills for the Future Health Care Workforce

- Discipline-specific knowledge and skills
- Social Intelligence
- Emotional intelligence
- Communication Skills
- Perseverance
- Teamwork
- Resilience
- Cultural sensitivity/Community Stewardship
Healthcare in the 21\textsuperscript{st} Century: Skills for the Future Health Care Workforce

- Augmented Intelligence
- Empathy and compassion
- Comfortability with Complexity
- Creativity
- Tolerance of Ambiguity
- Data analytics
- Leadership (Leader of Change)
Training professionals to improve health at home and around the world

Jefferson College of Population Health: Academic Programs

**2 On Site Degree Programs**
- PhD in Population Health Science
- Master of Public Health with dual training options:
  - Nursing
  - Medicine
  - Pharmacy
  - Law
  - Social Work

**7 Online Degree Programs for Working Professionals Around the World**
- MS or Certificate in Health Policy
- MS or Certificate in Population Health
- MS or Certificate in Population Health Intelligence
- MS or Certificate in Operational Excellence
- MS or Certificate in Healthcare Quality & Safety
- MS or Certificate in Healthcare Quality & Safety Management
- MS or Certificate in Applied Health Economics & Outcomes Research

**6 Population Health Research Centers**
- 1889 Jefferson Center for Population Health
- Center for Population Health at Lankenau Institute for Medical Research
Arigatou!