



# The Academic Health Center Concept

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# The Association of Academic Health Centers International (AAHCI)

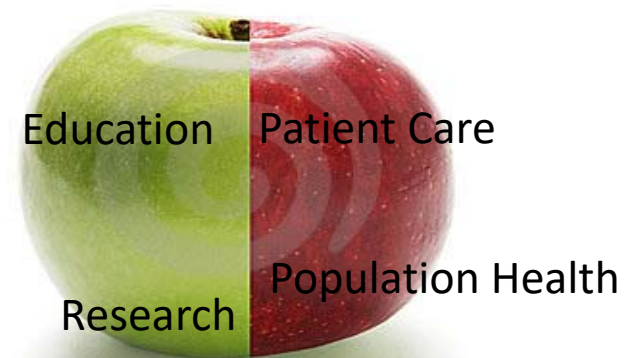
- The *only* global organization representing *all* the education, research, and patient care/population health missions of both fully developed and developing academic health centers, systems, and networks
- More than 90 members in the U.S. and 50 worldwide

# AAHCI seeks to help our members:

- *Apply knowledge to improve health and well being, and*
- *Build the knowledge economy and apply it in patient care*

# What is an academic health center and why is it important?

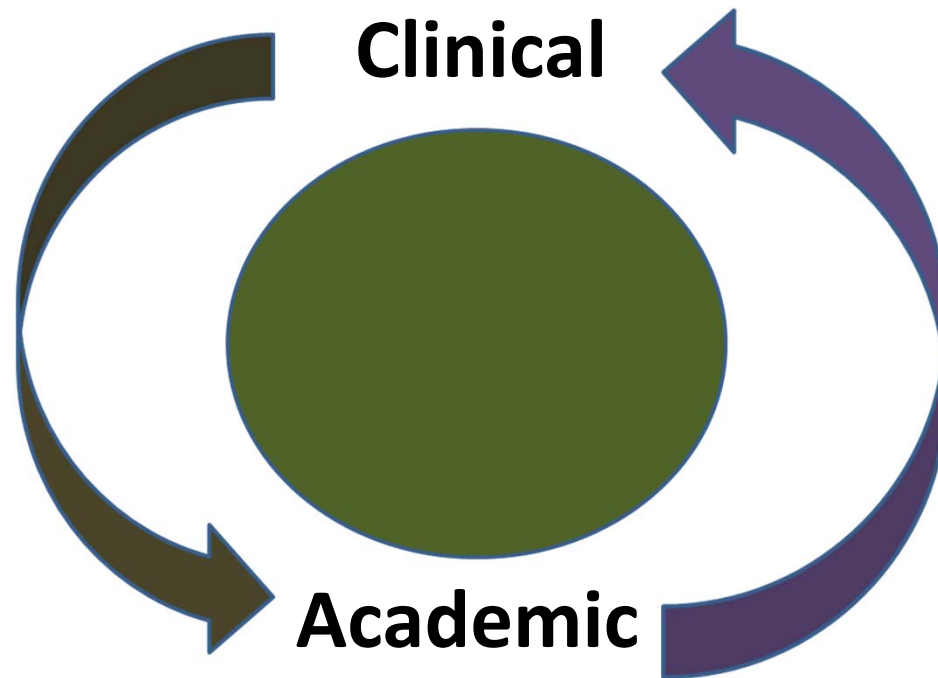
- An academic health center combines education, research, patient care, and population health in a highly synergistic manner



[dreamstime.com](http://dreamstime.com)

# An academic health center can achieve the “Virtuous Cycle”

The clinical and academic missions support each other and make each other better



# An academic health center is uniquely positioned for 21<sup>st</sup> century medicine

- It is flexible and forward-looking
- It works with many disciplines
- It has the capacity to adapt as well as to reinvent the future of healthcare
- Its focus is health and well-being

**It creates a “learning health system”**

# The ultimate goal:

- Improved health and well-being through:
  - Education of the 21<sup>st</sup> century health workforce
  - Science and research
  - Creation and adaptation to new technologies
  - Sharp focus on population and global health

# Healthcare faces many challenges!!\*

- Business sector and market forces
- Consumer empowerment
- Disease patterns
- Globalization
- Pace of change
- Politics and policies
- Population demographics
- Science
- Societal needs and values
- Technology

\*In alphabetical order



# Education

- New skill sets needed:
  - Work in interprofessional teams
  - Work with big data and smart machines
  - Understand and communicate probabilities to increasingly informed patients
  - Focus on health equity

# Science and research

- We are in a new phase of medical discovery that will focus on precision medicine
- This changes the paradigm for care delivery, drug discovery, and virtually everything else

# Technology

- We are entering the era of the “Fourth Industrial Revolution”
  - The convergence of a large number of technologies
- Changes fundamentally the nature of the medical practice

# Population and global health

- Focus on health equity by design
- Creative management of chronic diseases
- Taking full advantage of smart phones and other global technologies

# The forces at play in 21<sup>st</sup> century healthcare are in effect creating a “new physics” of patient care

- These forces are creating a perfect storm for the transformation of healthcare
- Academic health centers are the ideal institutions to be at the center of these transformations

# The new “physics” of patient care

$$E = mc^4$$



$$E = mc^4$$

The Emerging model of healthcare<sup>a</sup>, where:

- m = the population, both individually and collectively
- c<sup>4</sup> =
  - c<sup>1</sup> = care anywhere
  - c<sup>2</sup> = care in teams
  - c<sup>3</sup> = care by large data sets
  - c<sup>4</sup> = care by machines

a. Inspired by Eric Dishman's Ted Talk at [http://www.ted.com/talks/eric\\_dishman\\_health\\_care\\_should\\_be\\_a\\_team\\_sport.htm](http://www.ted.com/talks/eric_dishman_health_care_should_be_a_team_sport.htm).

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# Care anywhere (c<sup>1</sup>)

- Technology is moving with and inside the patient's body, wherever the patient may be
- Large, fixed infrastructures are necessary, but could be configured differently
- Consumers want convenience and one-stop shopping



# Care in teams (c<sup>2</sup>)

- The sacrosanct one-to-one doctor patient relationship is being replaced by relationships with multiple health professionals
- Figuring out how to gain the most value from team care is key
- Reimbursement must be supportive
- Scope of practice needs careful re-design

# Care in large data sets (c<sup>3</sup>)

- Collections of huge meta-data sets are becoming standard for patients, eventually leading to continuous monitoring
- A new interpretive and functional infrastructure is required to manage this data
- Locus of decision-making is shifting

# Care by machines (c<sup>4</sup>)

- They can out-perform humans in many tasks (surgery, data storage and recall)
  - They don't have to be perfect, but just make less mistakes than humans
- Their abilities don't decline with age and are easily updated
- They are “friendly” to administrators and supervisors
- They don't get tired
- In short, machines are a real threat to conventional medical practice

# Robots trending in healthcare

## - Examples -

- Data management: Watson-like models
- Dispensing meds: robot pharmacists
- Administering cancer treatments: Nano robots
- Diagnosing diseases: pap smear screening
- Caring for the elderly: 24 hour live-in robots
- Surgical robots: now a billion dollar industry in a growing range of medical specialties

- Medicine is becoming digital...we'll eventually be able to use artificial intelligence instead of doctors for much of our health care

- Vivek Wadhwa in Forbes, 12/14/15,

<http://www.forbes.com/sites/chasewithorn/2015/12/14/artificial-intelligence-doctors-and-virtual-reality-vacations-are-on-the-horizon/#6935f6bd544a>

# Managing the interface between humans and machines

- Calls for a new role for healthcare practitioners-

This is the first offering of the new AAHC Thought Leadership Institute

# But there is more to healthcare...

**newer**  
~~The new~~ "physics" of patient care

$$E = mc^5$$



# c<sup>5</sup> = Compassion

- *Not every patient can be saved, but illness may be eased by the way doctors respond*

- Adapted from Intoxicated By My Illness, Anatole Broyard, Ballentine Books, 1992

**C<sup>5</sup> must become even more of a priority in our education programs**



# The path forward for academic health centers in 21<sup>st</sup> century healthcare

*Be guided by a strong commitment to aligning patient care, teaching, and research*

## ***The AIM Program***

# ALIGNED INSTITUTIONAL MISSION (AIM) PROGRAM

## Core Components

AIM focuses on the following core components:

- [Mission Alignment](#)
- [Internal Accountability](#)
- [External Accountability](#)
- [Interprofessional Education and Practice](#)
- [Knowledge Sharing](#)

## *Purpose of AIM*

The AAHCI Aligned Institutional Mission (AIM) Program is intended to assist academic health centers in:

- setting and meeting their strategic goals;
- measuring organizational alignment; and
- benchmarking their success

*The AIM program respects the diversity and cultural heterogeneity of our member institutions around the world. AIM is not a “one size fits all” program. It will be tailored to benefit each institution on an individual level. It is AAHC peer reviewed and evaluated.*

**ALIGNED  
INSTITUTIONAL  
MISSION (AIM)  
PROGRAM**

**Implementation  
Plan – Phases**

**Development Phase**

**Design and optimization – 2016/2017**

**Pilot Phase**

**Full model testing, fine tuning,  
program finalized and prepared for  
launch – 2017/2018**

**Launch**

**Full roll-out, program to be supported  
by application fees – 2018**

# ALIGNED INSTITUTIONAL MISSION (AIM) PROGRAM

## Development Sites

- Seoul National University, Seoul South Korea
- Universitas Indonesia Faculty of Medicine, Jakarta Indonesia
- University of Arkansas, Little Rock USA
- University of Southern California, Los Angeles USA

## Pilot Sites Now Being Identified

# In conclusion:

## Academic health center goals

- *Restructure health professions education* to meet changing and evolving societal needs
- *Link research* to improved health outcomes
- *Transform patient care* based on population needs and priorities

# An academic health center will be well-positioned for success if:

- It captures the power of an organization that *aligns* teaching, research, and patient care
- It focuses on the *next generation* of education, research and patient care
- It has the *transformational leaders* to change culture and behavior
- It enters into *strategic partnerships* that advance health and well-being

# Thank you



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International

*Leading institutions that serve society*

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