

Congresso Nazionale 2019 CNETO, Fondazione Action for Health Institute, Politecnico di Milano, ABC...Salute

Esperienze di successo : Thomas Jefferson University e Jefferson Health

Peter Scoles



cneto

CENTRO
NAZIONALE
TECNICA E
OPEDALIERA



FONDAZIONE
ACTION FOR HEALTH
INSTITUTE



POLITECNICO
MILANO 1863

DIPARTIMENTO DI ARCHITETTURA,
INGEGNERIA DELLE COSTRUZIONI
E AMBIENTE COSTRUITO

ABC

Associazione culturale

...SALUTE

Camogli (GE), 2 - 3 dicembre 2019

Congresso Nazionale 2019

CNETO, Fondazione Action for Health Institute,
Politecnico di Milano, ABC...Salute

Dare valore alla salute

Dalla medicina curativa alla medicina proattiva
Nuove strutture e sistemi integrati per la salute

Patrocinato e supportato da



REGIONE LIGURIA



Design
& Health

STATS

AIRNOVA

HARPACEAS
the BIM expert

sihta

simm

STU
SOCIETA' ITALIANA DI STUDI
URBANI, PAESAGGI E SERVIZI PUBBLICI

SagiCofim

SIEMENS



ORDINE DEGLI
ARCHITETTI
PIANIFICATORI
PAESAGGI E
CONSERVATORI
DI GENOVA

Ordine Ingegneri Genova



ORDINE PROVINCIALE
DEI MEDICI CHIRURGHI
E DEGLI ODONTOIATRI
GENOVA

Journal

Ingegneria

Progettare
per la Sanità

Jefferson Background

- Private non-profit organization
- Founded 1824 as Jefferson Medical College
- Hospital opened 1877
- More practicing graduates than any other US school
- Renamed Sidney Kimmel Medical College 2013
- Joined with Philadelphia University 2017 to become Thomas Jefferson University



Jefferson's Surgical History

Samuel Gross

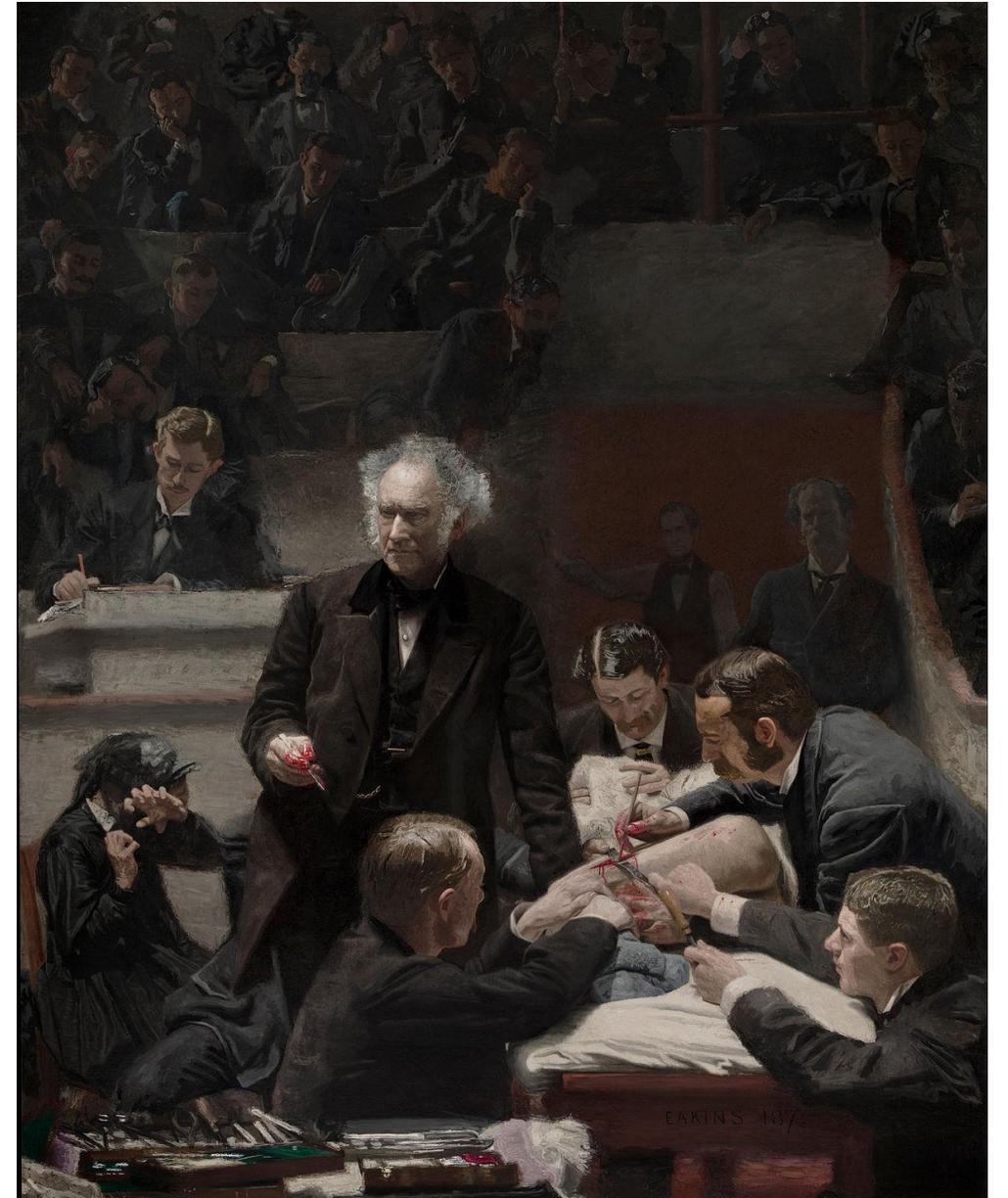
- Thomas Eakins *The Gross Clinic*

John Gibbon

- Inventor of Heart Lung machine
- First successful cardiac bypass

Anthony DePalma

- Placed Jefferson at the forefront of Orthopedic Surgery





Jefferson Today

- Undergraduate and graduate programs in Liberal Arts, Design, Engineering, Architecture and Health Professions
- Medical College, Nursing College, Allied Health College
- Academic pillar of Thomas Jefferson University Health System

US Health Care Background

- Health care is a commodity, not a right
- No comprehensive national health care plan
- Largely fee-for service basis

With some notable exceptions, health care providers are rewarded for providing care to people who are already sick

Until 10 years ago Public Health was not part of the curriculum of US medical schools

Caveat

Much of the information regarding health care coverage in the US is incomplete, not accurate, misleading, or false

Government Sponsored Programs

- Medicare > 65 years: 15%
- Medicaid*: 7%
- Military personnel and Dependents: 3%
- Affordable Care Act: 3%

Private Sector: 60%

- Blue Cross/Blue Shield, Aetna
- Health Care Systems as Insurers
 - Kaiser, UPMC

No Health Insurance: 10-15%

Affordable Care Act (ACA) “Obamacare”

Goals

- Make affordable health insurance available to more people.
 - Provides subsidies for low income households
- Expands Medicaid to cover all adults with income below 138% of the federal poverty level. (Not all states have expanded their Medicaid programs.)
- Encourage innovations that lower costs

Accountable Care Organizations (ACO's)

- Medicare-based program
- Encourages hospitals and health care providers to coordinate comprehensive care
- ACO's are financially rewarded for meeting quality standards and achieving cost reductions

Non profit and for profit organizations may participate

US Health Expenditure Projections 2018-2027

- Health care expenditures will grow from \$3.6 to \$6.0 trillion
- Health share of GDP is expected to rise from 17.9 % to 19.4 %
- Medicare costs will rise faster than private or Medicaid costs
- Prescription drug costs are projected to grow by 6.1 % / year driven by demand for new drugs and increased prices on existing drugs
- Costs for physician services are projected to grow by 5.4%

US Defense spending 3.1% of GDP

Long term US inflation rates ~ 2 to 2.5%

Health care education contributes directly and indirectly to health care costs

- Public education stops at the 12th year in the US
- Even in state supported universities, students are responsible for a large portion of the tuition and all of their housing costs.

US Medical Education

11-15 years

College

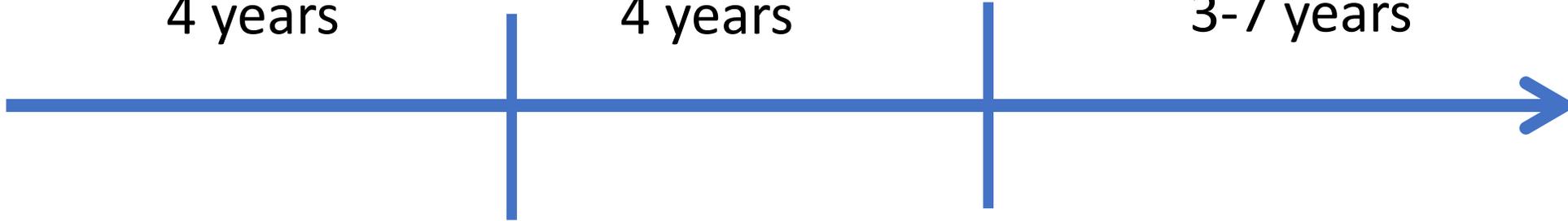
4 years

Undergraduate
Medical School

4 years

Graduate Medical
Education

3-7 years



This is very expensive

4 years Undergraduate college

\$360,000

4 years Medical School

400,000

\$760,000

Financed at 5.5% for 30 years

\$1,553,470

Monthly payments

\$4,315.20

Median Mid-Career Income
US Medical Specialties
2019

Source:
Medscape Physician Compensation Report

Self reported survey data
Not independently verified

Internal Medicine	243,000
Pediatrics	225,000
General Surgery	362,000
Orthopedic Surgery	482,000
Psychiatry	260,000
Family Medicine	231,000
Emergency Medicine	353,000

	Pretax	15,000	
	Post Tax	11,250	
	Expenses		
		Home mortgage	2500
		Heat/Light/IT	500
Primary Care Physician		Health insurance	700
Starting Salary \$180,000		Other insurance	500
Mid career \$250,000		Food	1500
		Education Loans	4350
		Auto	250
		Clothing/Misc.	500
		Total	11235
	Margin	\$15.00	

In a fee-for-service system, physician income ultimately depends on how much revenue they generate for their employer

It is inconceivable that educational debt will not affect choice of specialty or subsequent practice behavior



Some things are clear

- *Health care is expensive*
- *The cost of health care is rising faster than the overall inflation rate*
- *A large number of people have no insurance or are underinsured*
- *Health care expenses are the largest source of personal bankruptcy in the US*

The current US health care system is not sustainable

It may fail catastrophically through pandemic illness, natural disaster, or economic crisis

It may fail because the cost is not sustainable

It may fail because of public outrage

Legislative changes will be difficult, and may not be legal.

- *They can't be done by executive order*
- *They will require a veto proof majority in the US Senate*
- *They will be challenged at the US Supreme Court*
- *Compulsory single payer plans such as Medicare for All may require Constitutional amendments*

Who will oppose change?

- *Conservative lawmakers and their constituents*
- *Insurance companies, device manufacturers, the pharmaceutical industry, and advertising companies*
- *Highly paid Physician specialty organizations*
- *US equity investors.*
- *For-profit health systems.*

Is there an acceptable compromise?

Perhaps

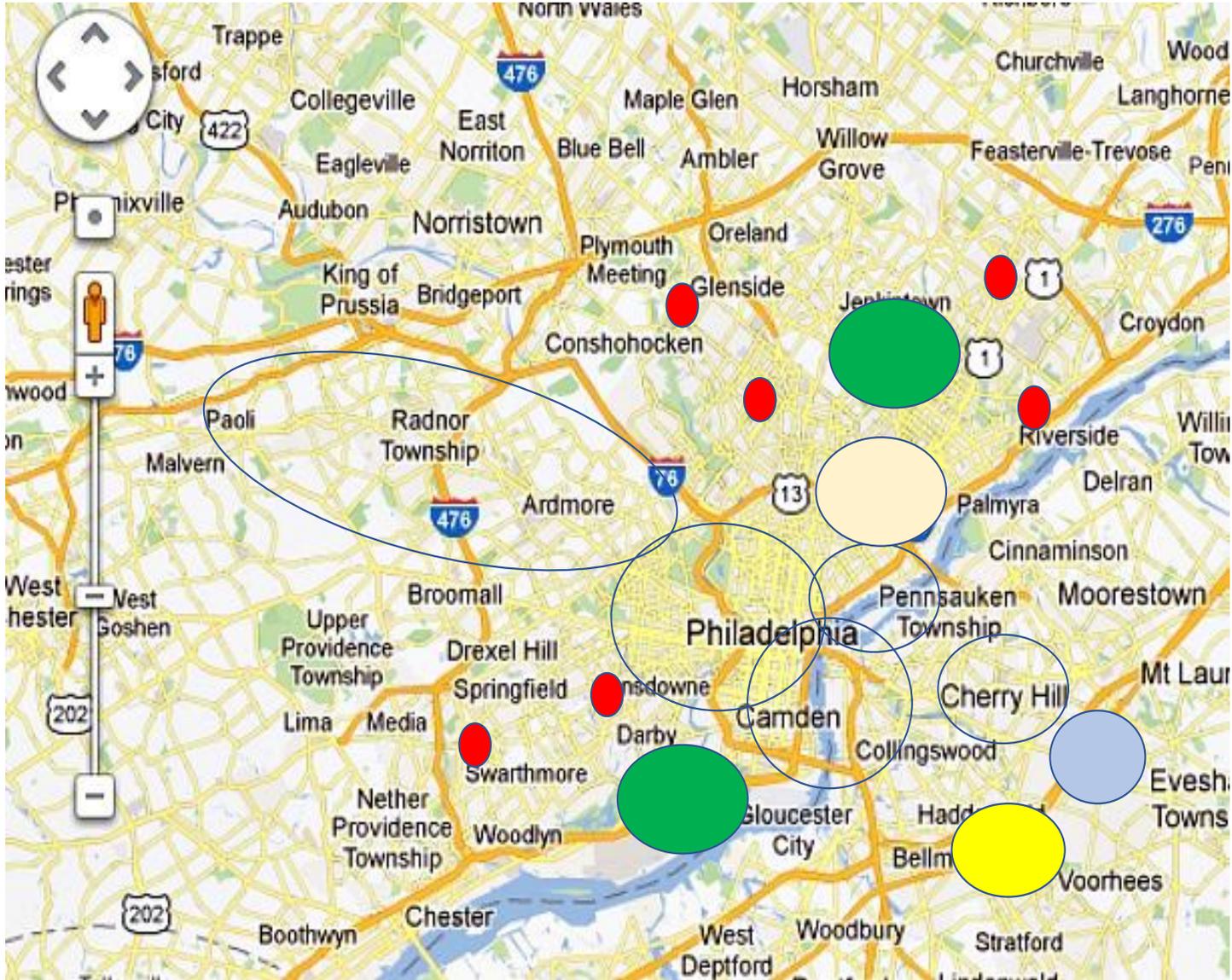
- *It will take a long time to achieve*
- *Only those health systems that survive will participate in the dialogue*
- *Growth is critical to survival*

The Jefferson “story” is based on this premise.

Where we live...

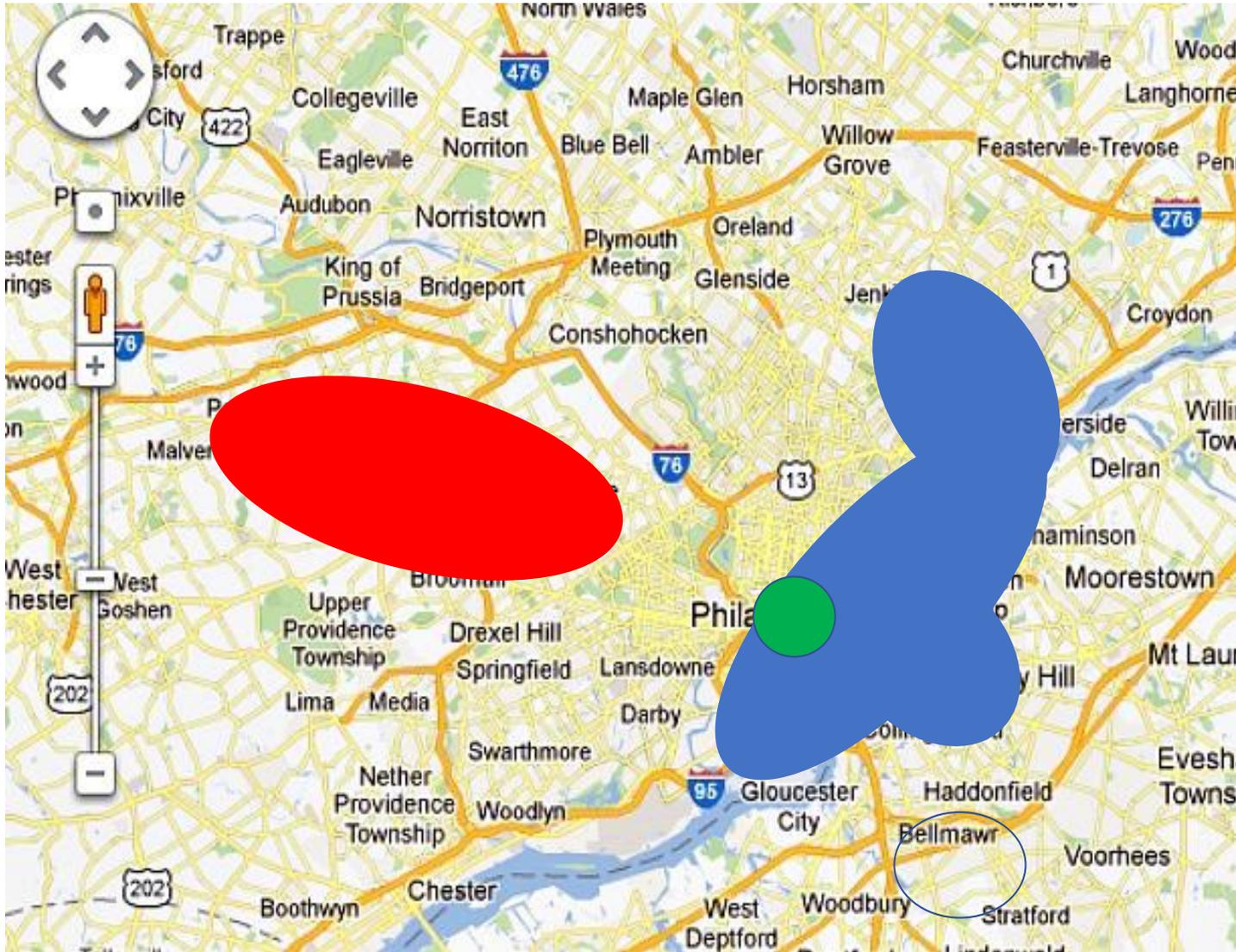






Philadelphia Area
Hospital Systems 2015

- Univ. of Pennsylvania
- Jefferson University
- Temple University
- Drexel University
- Abington Hospital
- Albert Einstein Hospital
- Main Line Health
- Aria Health Network
- Virtua Health Network
- Crozier Chester Network
- Cooper Hospital
- Kennedy Health Network



Philadelphia Area
Hospital Systems 2019

- Univ. of Pennsylvania
- Jefferson University
- Temple University
- Main Line Health

Jefferson Health System

2015

- 3 hospitals
- 11 ambulatory sites
- 700 doctors
- 2500 nurses
- Revenue 1.2 billion

2020

- 20 hospitals
- 50 ambulatory sites
- 2000 doctors
- 8000 nurses
- Projected revenues 9.1 billion

*Jefferson's size assures that it will be at the table, but
it does not assure survival*

*Health system operating margins are small, costs are
rising, and reimbursements are shrinking*

*Efficiency, cost control, translational research,
international outreach, and philanthropy will be
essential*



CNETO
Part 3

Peter V. Scoles MD

Professor of Orthopedics

Vice Dean

Sidney Kimmel Medical College

Thomas Jefferson University

Philadelphia, Pennsylvania

**Impact of Architecture on Health Care
Delivery**





1979

1954

1924

1906





The Worst Way to Design a Hospital







