

# Deconstructing Healthcare Delivery

## - The Malaysia Experience

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# New methods of healthcare delivery relevant to the Malaysia system

## Future trends and the role of technology

The demand for it (healthcare) is not only potentially unlimited; it is also by nature not capable of being limited in a precise and intelligible way.



Enoch Powell  
*Health Minister, UK 1960-63*

# Outline

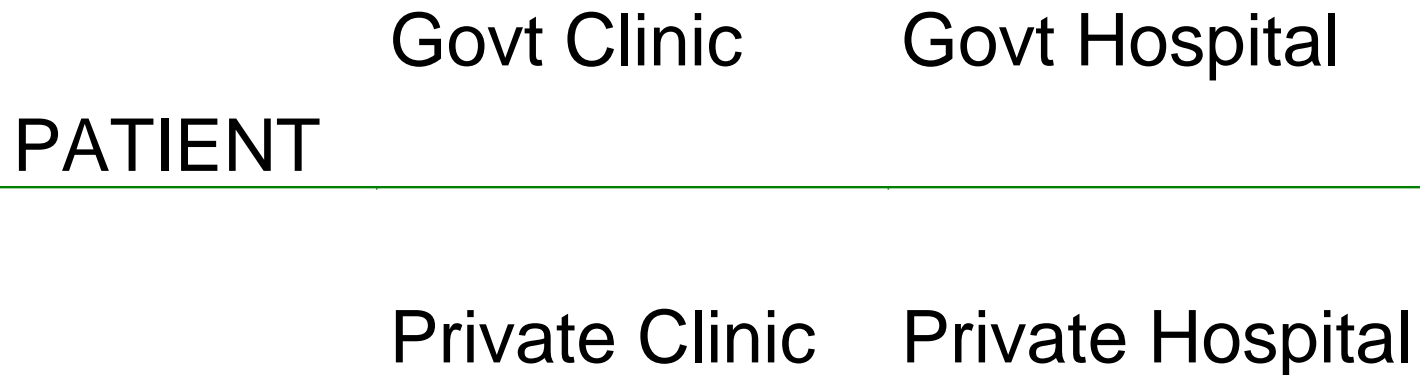
1. Malaysian Healthcare Scenario
2. Present System of Healthcare Delivery
3. Mind-set shift
  - disease v. wellness
  - treatment v. prevention
  - patient v. person
4. Role of Technology in Personalized Healthcare
5. Future Trends
  - technology and the physician
  - consumerization
  - role of provider institutions

# Malaysian Healthcare Scenario

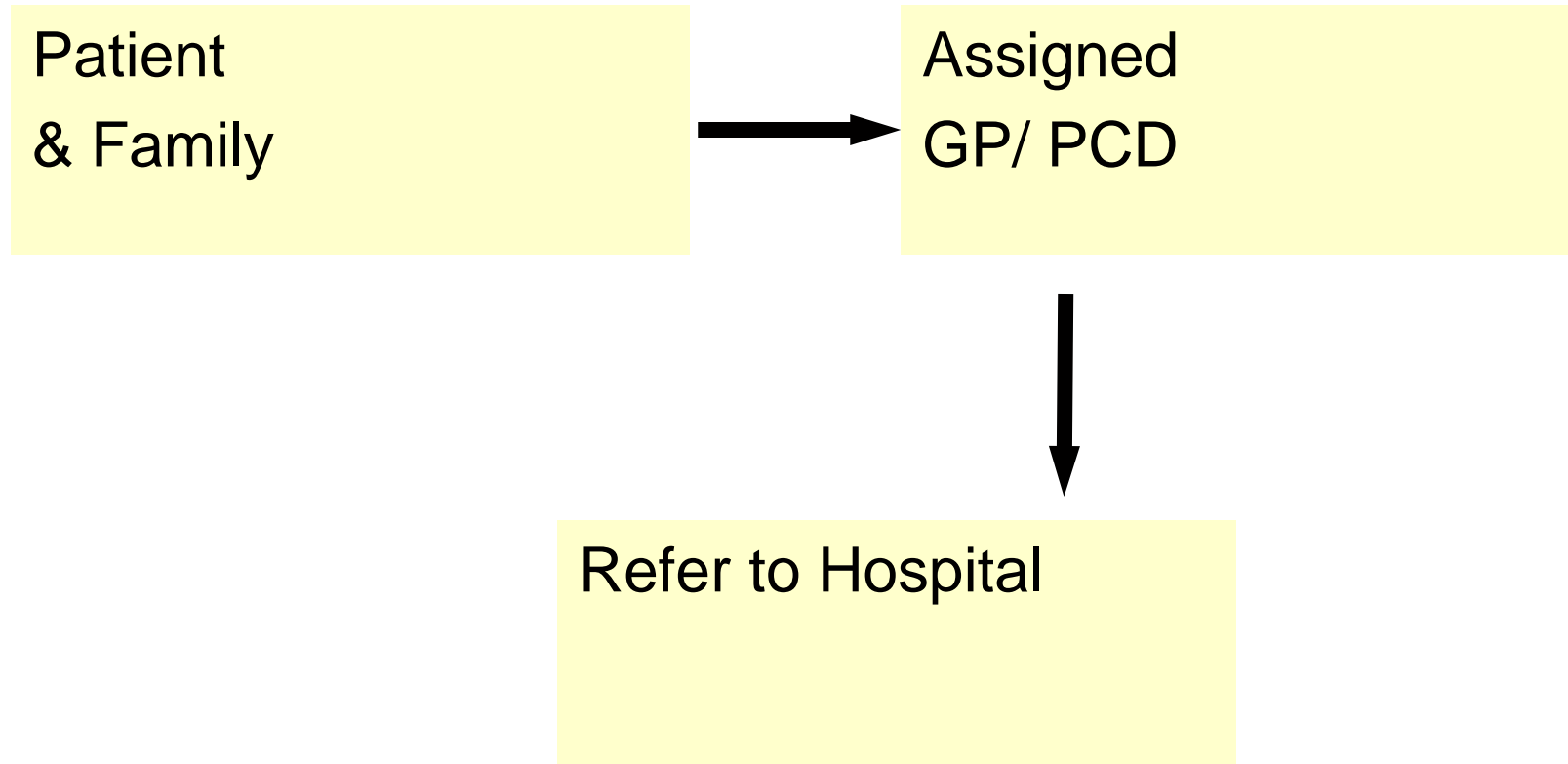
- Total Expenditure in Health - 4.4% GDP (2010), 7% (2020)
- Amount - RM 31 Billion (USD 10 Billion) p.a.
- 180,000 jobs in 2020
- Private: Public Spending - 3:2
  - ◆ Integration
- 19% Malaysians with Health Insurance
  - ◆ Uneven distribution

# Present System

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# 1 Care



# Present System of Healthcare Delivery

- Developed over years
- Patient and Physician centric
- Increasing complexities
  - ◆ Medical issues
  - ◆ Resource issues - gatekeeper concept
  - ◆ Logistic issues
  - ◆ Reimbursement issues
  - ◆ Administrative issues
- Friction of patient-physician interaction
- Inefficiencies - perceived and real



# Healthcare Delivery - from Ancient to Modern

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and what's really interesting is that there's still human brain we still know nothing about."



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"Enough acupuncture - get me a couple of aspirin."

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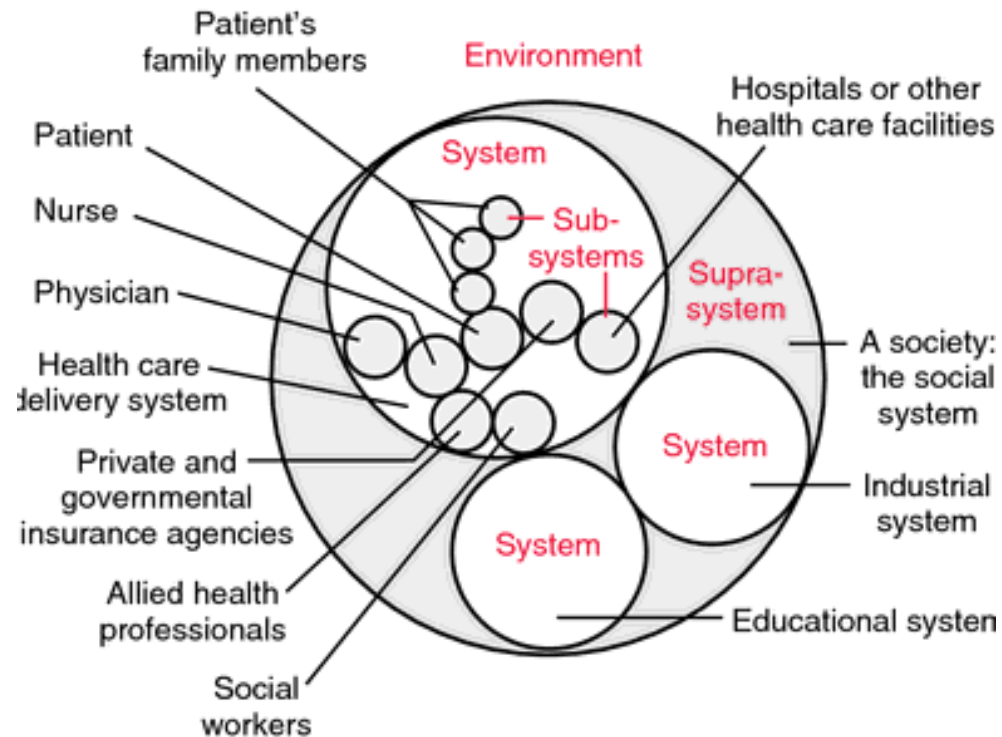


# Healthcare Delivery - from Ancient to Modern



"It's a postcard from your doctor. He says he'll be right with you."

# Healthcare Delivery - from Ancient to Modern



# Healthcare Delivery - from Ancient to Modern

## What is Medical Care Network for Chronic Neurological Diseases

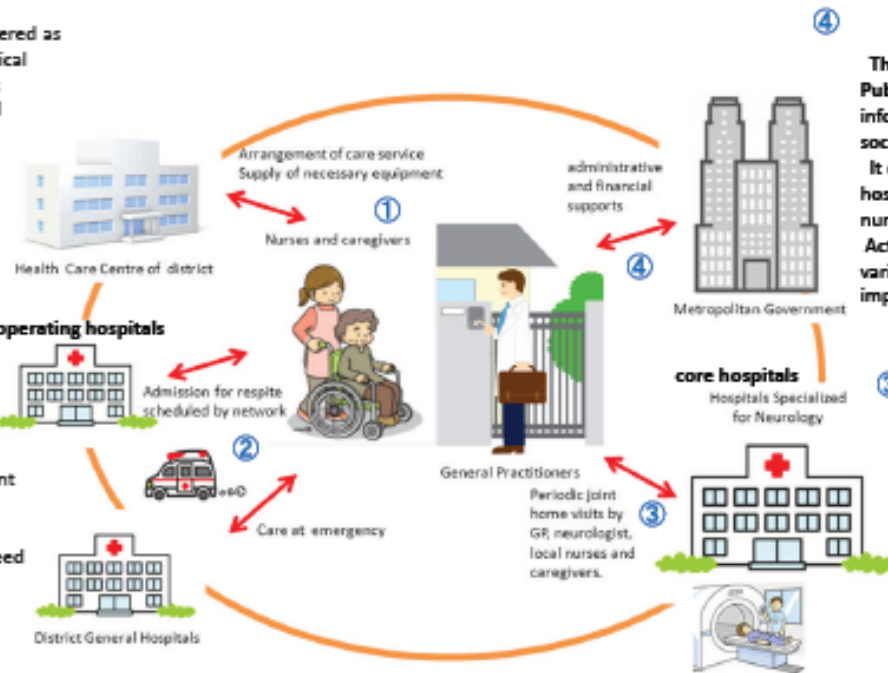
①

Patients who are registered as having chronic neurological diseases are assessed as to the needs for medical care and equipment. Respirators and related equipment, including electric generator to be used at blackout, are provided.

②

Thirty core hospitals and 58 cooperating Hospitals are currently assigned. Contracts between the metropolitan government and hospitals allows government officials to allocate patients who need respite to beds designated for them.

Current status of home care patients of TMNH



④

The Bureau of Social Welfare and Public Health provides patients with informations about medical and social services available for them. It coordinates between patients, hospitals, general practitioners, nurses, and local health care centres. Action planning for the time of various kinds of disaster is an important issue for all concerned.

③

Once a diagnosis is established by neurologists, patient, family members and hospital staff discuss to establish a long time care plan. Various arrangements needed to execute the plan are made. They involve local GP and nurses. Periodic joint visits to the patient's home by GP, neurologist, local nurses and caregivers are financially supported by the metropolitan government.

- Home care patients without respirator (45 patients)
- Patients on respirator (55 patients)
- Tokyo Metropolitan Neurological Hospital

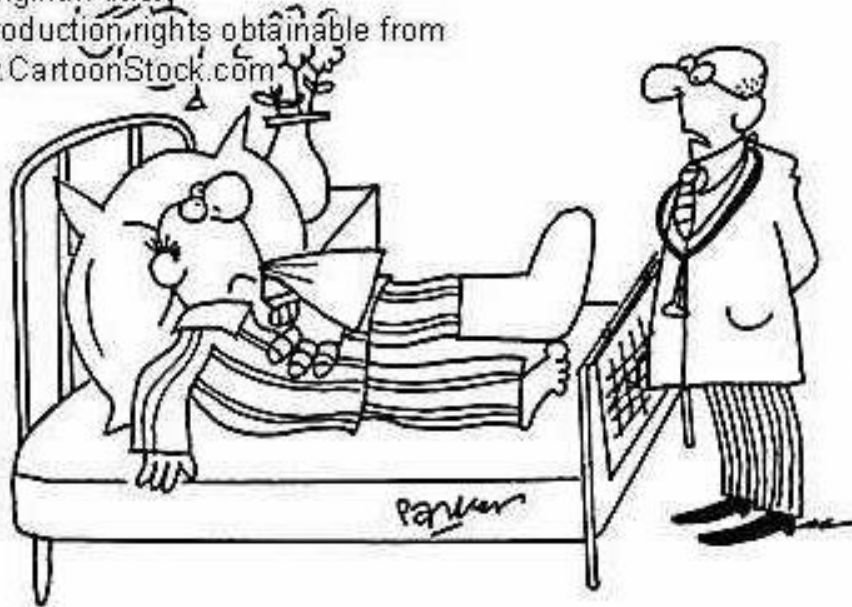
## Medical Care Network for Chronic Neurological Diseases in Tokyo Metropolitan Area

# Present System of Healthcare Delivery

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# Managing Costs and Expectations

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"BAD NEWS, MISTER HOGWHITE - YOUR HOSPITAL PLAN HAS TAKEN A TURN FOR THE WORSE."

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Miraculously you're still alive but when you get the hospital bill you're gonna wish you were dead.

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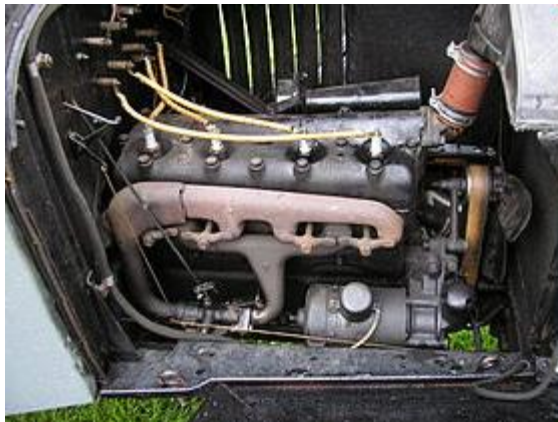
# Healthcare - the need to deconstruct

- ‘You have to ... strip down all things we do in hotels and go and ask why. Why do we do that? Why do we play *The girl from Ipanema* when no one in the bar is over the age of 40?’

*Andrew Cosslett*

*CEO, Intercontinental Hotel Group, 2007*

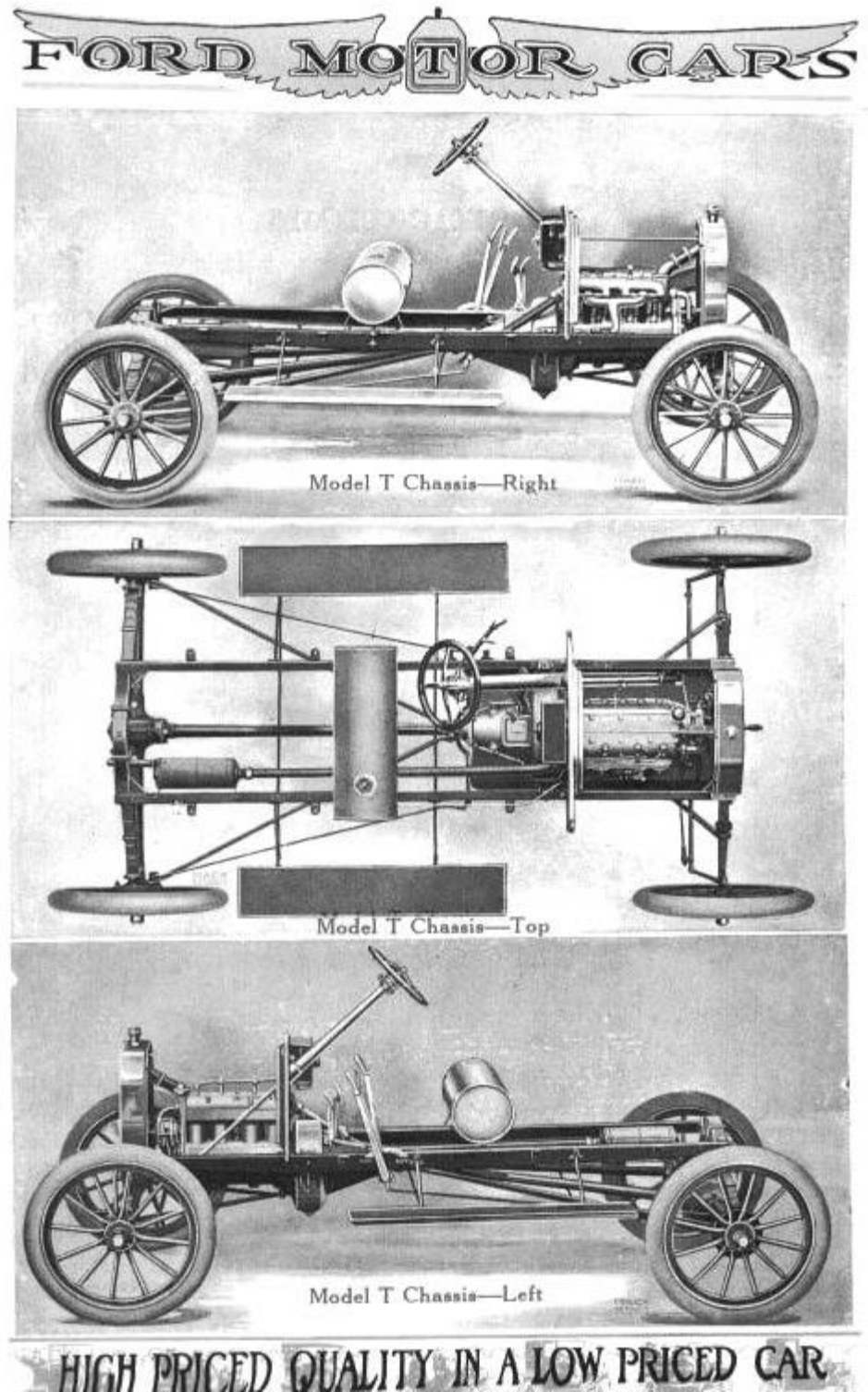
# Ford Model T 1910



Ford Model T Engine 1908-1941

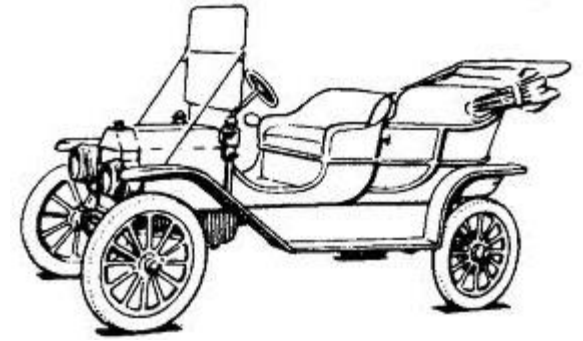
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# Tesla Model S 2013



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# Mind-set Shift

- Disease v. Wellness
- Treatment v. Prevention
- Patient v. Person

# Role of Technology

- Healthcare technology is on the cusp of (a) breakthrough... We have seen great innovation already but it's only the beginning

*Maria Bartiromo, CNBC, LinkedIn 2013*

# Role of Technology

- Great interaction of Healthcare and Technology
- 'these two worlds are colliding'

*Nick van Terheyden, CMIO, Nuance*

- Value-based care:
  - ◆ quality
  - ◆ efficiency
  - ◆ outcomes

# Role of Technology

- 'Digital revolution will deconstruct how healthcare is delivered.'

*Dr. Eric Topol, The Creative Destruction of Medicine, 2011*

- Aims
  - ◆ improve health
  - ◆ diminish chance to develop preventable disease
  - ◆ minimize consequence of diseases
- Personalized health care - digital platform

*Dr. Ralph Snyderman, Huffington Post, 2013*

# Technology - Medical

- Screening - radiology, breath analysis, genetics
- Diagnostic
- Therapeutics
- Operations and interventions



# Technology - Support and Allied Fields

- Monitoring
  - ◆ health record tracking
- Data collection and storage
- Communication - feedback and dissemination
  - ◆ healthcare professional
  - ◆ caregiving coordination system
  - ◆ medication support system
  - ◆ patient management system
- Chronic diseases and the aging population

# Technology - Devices and Systems

- Patient - hand-held devices
  - ◆ smart phones
  - ◆ e-tablets
- Physician - computerization, digital technology
- Storage
  - ◆ cyberspace
  - ◆ cloud computing
- Systems
  - ◆ telemedicine
  - ◆ teleradiology
  - ◆ telepathology



# 360-degree service orientation

Patient management from start to finish



**“Health care is poised to be revolutionized by two forces - technology and consumerism.”**

*The Creative Destruction of Medicine:  
How the Digital Revolution Will Create Better Health Care (Eric Topol)*

“One-size-fits-all medicine will soon be overtaken by highly personalized, customized solutions that are enabled by breakthroughs in genomics and mobile devices and propelled by empowered consumers looking to live longer, healthier lives. Fasten your seat belts and get ready for the ride—and learn what steps you can take to begin to take control of your health.”

*Steve Case, co-founder, AOL, and founder of Revolution LLC*



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# Some Future Trends

- Technology and the physician
  - ◆ Buy-in into different layers of practice environment
- Consumerization
  - ◆ Patients have control and actively engage in their own health and well-being
- Role of Provider Institutions
  - ◆ concept of hospital
  - ◆ adoption of technology
  - ◆ virtual v. real patients
  - ◆ virtual v. real providers

# Healthcare and Technology - Challenges

- Acceptance
  - ◆ Physician
  - ◆ Institution
  - ◆ Payers
- Costs
- Timeline
  - ◆ 13 years to take a new healthcare innovation to its establishment as standard of care  
*(Delos Cosgrove, CEO and President, Cleveland Clinic)*
- Implementation - inter and intra-system diversity



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# Conclusions

- Change in landscape of healthcare delivery is inevitable
- Change will encompass deconstructing existing models - back to essentials
- New priorities
- Prominent role of technology - digital
- Set up ecosystems that embrace new methods of healthcare delivery - cost effective
- Preserve human connection

# Thank you



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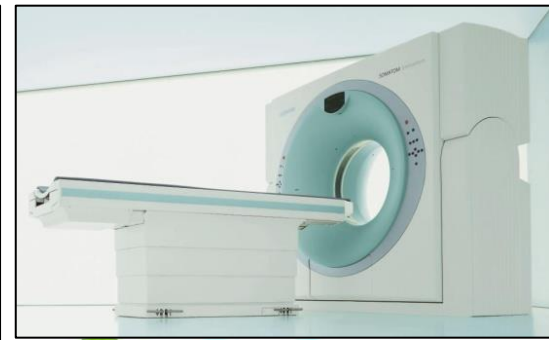
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