What’s in store for 2019 and beyond?

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Our mission as a nonprofit, faith-based hospital is to provide the highest quality health care services to the communities we serve.

Hoag Hospital Newport Beach
Opened 1952
- 273 Medical Surgical Beds
- 70 Perinatal Beds
- 21 NICU Beds
- 19 Critical Care/Intensive Care Beds
- 19 Operating Rooms
- 18 Inpatient Rehabilitation Beds
- 58 Emergency Department Beds
- 2 dedicated NIR Angio Labs, 5 Cath Labs
- Full Imaging

Hoag Hospital Irvine
Opened in 2010
- 72 Medical Surgical Beds
- 12 Critical Care/Intensive Care Beds
- 2 Operating Rooms
- 23 Emergency Department Beds
- 2 Cath Labs
- Full Imaging

Hoag Orthopedic Institute
Opened 2010
- Specialty Hospital
- Jointly owned by Hoag and Orthopedic Surgeons
- 70 Medical Surgical Beds
- 9 Operating Rooms
Hoag Health Network

8 Health Centers
11 Urgent Care Centers
1,600 Physicians
6,200 Employees
2,000 Volunteers
So, what project delivery methods do healthcare organizations really want?
Influencing Forces in Healthcare

- Orange County Demographics
- Essential Continued Cost Reductions
- Retail Clinics and Telehealth
- Medicare Advantage and Medi-Cal
- Orange County Competition
- Hoag Physician Requirements
Orange County Demographics

- 3.2m total OC population
- 13% 10 year OC growth
- 24% 5 year growth
- 1.6x Greater Irvine growth
- 20% more likely to have a college degree
- 150k Coastal OC growth

- Diversity
“If you don’t like change…get out of healthcare…”
“Ninety percent of incumbents and innovators alike don't believe healthcare's status quo will continue. Seventy percent predict value-based care will dominate healthcare by 2030.”

Source: Oliver Wyman
WILL DIGITAL HEALTH TECHNOLOGY REPLACE PHYSICIANS?

DIGITAL HEALTH TECHNOLOGIES WILL PLAY A LIMITED ROLE IN THESE PROFESSIONS MOSTLY SERVING AS AUXILIARY TOOLS.

- Geriatrics
- Dentistry
- Otolaryngology
- Pulmonology
- Dermatology
- Radiology

DIGITAL HEALTH TECHNOLOGIES WILL HAVE AN IMPACT ON THESE PROFESSIONS BUT IT WON’T CHANGE THEIR INTERACTION-BASED NATURE.

- Psychiatry
- Neurology
- General Practice
- Endocrinology
- Gastroenterology
- Pediatrics
- Infectology
- Oncology
- Emergency Medicine

MANY REPETITIVE COMPONENTS OF THE JOBS WILL BE REPLACED BY TECHNOLOGIES TO CREATE SPACE FOR CREATIVE TASKS.

- Ophthalmology
- Cardiology
- OB/GYN
- Sports Medicine
- Plastic Surgery
- Surgery
- Forensic Medicine
- Pathology

THese professions will be heavily dependent on digital health technologies, medical professionals will work with them on a daily basis.

- Data-based (dealing with data about or derived from the patient)
- Interaction-based (talking with the patient in person or remotely)
- Creative (something new happens every day)
- Repetitive (a large part of the job is the same every day)
FDA APPROVALS FOR ARTIFICIAL INTELLIGENCE-BASED ALGORITHMS IN MEDICINE

2014:
- AliveCor: detection of atrial fibrillation
- DaChek: diagnosis and treatment of ADR
- chek: determining insulin dosage
- LympH: ultrasound image diagnosis
- One Drop Blood Glucose: quantification of blood glucose levels
- Contab Mobile: memory assessment for the elderly
- ENSO Sleep: diagnosis of sleep disorders
- AneCAD-US: analysis of thyroid nodules
- Lapo Pancrea: detecting arrhythmias
- Subira Medical: medical imaging platform
- BioFlux: detecting arrhythmias
- Bay Labs: echocardiogram analysis
- Vizual: stroke detection on CT
- Arterys Inc: liver and lung cancer diagnosis on CT and MRI
- Empatica: wearable for predicting epilepsy seizures
- Cognion: autism diagnosis tool
- Medronic: predicting blood glucose changes
- Linea: detection of diabetic complications
- icometrix: MRI brain interpretation
- Imagen: X-ray wrist fracture diagnosis
- NeuroBlot: transcranial Doppler probe positioning
- MindMotion GO: motion capture for the elderly
- DreaMed: managing Type 1 diabetes
- POGO: blood glucose monitoring system
- Zebra Medical Vision: coronary artery calcification algorithm
- Adi Tech: CI renal bleeding diagnosis
- IACD: breast density via mammography
- BriefCase: image and diagnosis of breast lesions
- PhysIQ Heart Rhythm Module: detection of atrial fibrillation
- Apple: detection of atrial fibrillation
- RightEye Vision System: identifying visual tracking impairment
- ROSA: acute intracranial hemorrhage image algorithm
- Profound AI: detection and diagnosis of stroke lesions
- ReSET: diagnosis and treatment of substance abuse disorder
- Verify: ECG feature of the Study Watch
- Page AI: clinical grading of hypertension
- AliveCor: six-lead smartphone ECG
- Zebra Medical Vision: chest X-ray analysis
- Aidos: flagging pulmonary embolism

Cardiology
Psychiatry
Endocrinology
Radiology
Gastroenterology
Neurology
Orthopedics
Emergency Medicine
Ophthalmology
Pathology
Oncology
TYPE OF HOSPITAL SERVICES

COMMODITIZED:
- Radiology
- Colonoscopy
- MRI

ELECTIVE:
- Orthopedics
- GI surgeries
- Basic CV procedures

NON-EMERGENT:
- Complex CV procedures
- Complex orthopedics

HARD-TO-PRICE NON-EMERGENT:
- Cancer
- Burn care

EMERGENT:
- Emergency
- Trauma

Source: Oliver Wyman
SHOPPABILITY LEVEL

With an increase in price transparency, certain medical services will become increasingly "shoppable," and the price spread across services will be impacted at various levels.

- Relative shoppability
- Future price spread

Commoditized services | Elective services | Non-emergent services | Hard-to-price Non-emergent services | Emergent services

High | Medium | Low

Source: Oliver Wyman
Younger generations are "dissatisfied" and "very dissatisfied" with aspects of traditional care.
2020 PREDICTIONS FOR AMAZON, HAVEN, GOOGLE, APPLE

AMAZON WILL STILL NEED CARE DELIVERY EXPERTS – JUST LIKE THEY ONCE NEEDED BOOK WHOLESALERS.

EXPECT SOME INTERESTING HAVEN PRODUCTS THAT AREN’T NECESSARILY A THREAT TO INSURERS.

GOOGLE WILL EMPOWER PEOPLE TO COMPARE DIFFERENT OFFERS IN A CARE DELIVERY SETTING.

APPLE’S NEXT MOVE WILL BE DEVICE ORIENTED, LIKELY AROUND “REMOTE BIOMETRIC MONITORING.”

Source: Oliver Wyman
Figure 6.2. Financial Distress Estimates Imposed by SB 1953

Source: Rand Corporation
Continue to move care to more convenient, less expensive venues
Distribute services into the community
Prepare for scalable inpatient services
Organize around integrated clinical institutes
Be competitive in the “war for talent”
Embrace new ways to care for the community
Ten years from now, there will emerge just a few healthcare institutions, who will have shifted away from fragmented care to integrated models, with a reputation for excellence, unparalleled service and patient-focused outcomes that will have broad attraction for patients.

Hoag intends to be one of them.