



Class 5: Innovation in the Physician Practice Model



Non-precision medicine...

Stu's Views

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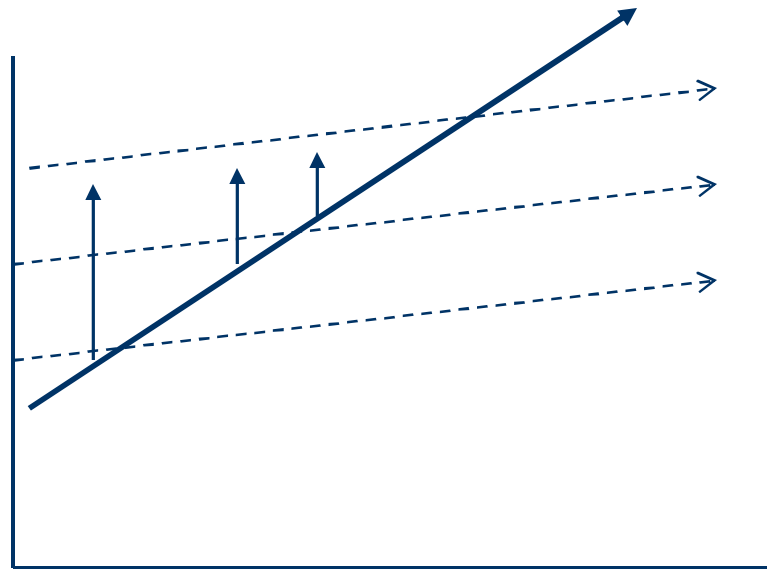
"I'm stumped.
We'll have to wait for
the autopsy."

Concept of “quality” in “jobs-to-be-done”

- Every product/service has a Basis of Competition
 - Type of improvements for which customers will pay a premium price
 - Narrows the gap between what they want and what they are getting now

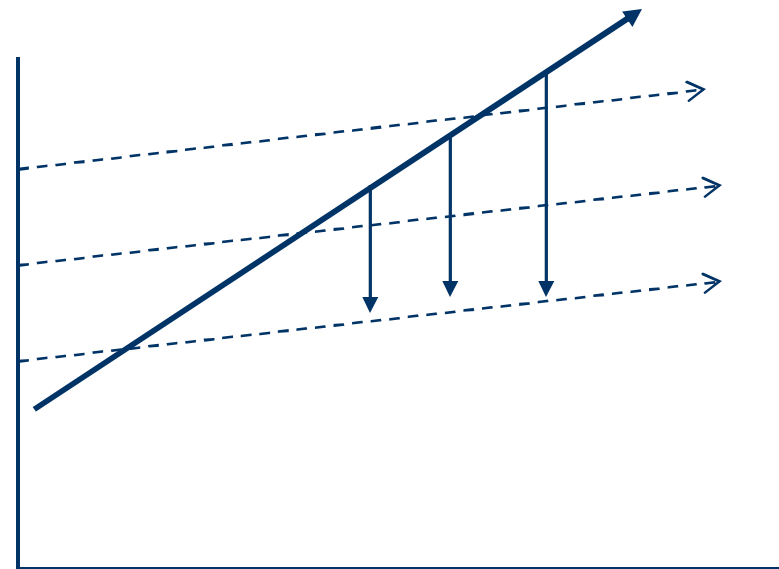
When product is relatively low on innovation scale...

- Customers will pay more for better performance, better reliability (higher % quality+)



When innovation scale is high, or overshoot...

- Won't pay premium price for performance any more (it's a given)
- WILL pay for convenience, rapid delivery, higher responsiveness
- Once things perform well and reliably, % quality+ becomes convenience, rapid service, etc.
- Apple vs. Dell



In the realm of precision medicine...

- Dx and Tx are reliable and predictable
- MinuteClinics (and other retail medical clinics) provide %quality+through convenience and rapid service.
- Quality should be judged on the job-to-be-done

Life Expectancy loosely associated to availability of physicians

<u>Country</u>	<u>Physicians/1,000</u>	<u>LE at Birth</u>
India	0.6	69.3
South Africa	0.77	48.9
Singapore	1.4	81.9
China	1.51	73.2
Japan	2	82
Canada	2.1	81.2
U.K.	2.2	78.8
U.S.	2.3	78.1
Switz.	3.6	80.7
Belgium	3.9	79.1
Italy	4.2	80.7
Russia	4.25	65.9

Over 850,000 physicians in the U.S.

<u>Specialty</u>	<u>#</u>	<u>Median Salary/Yr.</u>
Internal Medicine	116,000	\$176,000
Family Practice	92,500	\$135,000
Pediatrics	60,800	\$175,000
Psychiatry	35,500	\$169,000
OB/GYN	34,600	\$261,000
General Surgery	27,100	\$291,000
Orthopedic Surgery	24,300	\$342,000

Training is long and costs are high...

- 4 years undergrad
- 4 years medical school
- For medical specialties:
 - . 2-3 year residency for general practice
 - . 2 or more years fellowship for specialty
- For surgical specialties:
 - . 4-5 years of residency for general surgery
 - . 1 year general surgery + 4 or more years for specialty surgery
 - . 2-3 year fellowships for subspecialties.
- Tuition for medical school: \$25,000 to \$41,000/year

Physician practices do four jobs...

1. Dx and Tx of precision-medicine disorders
 2. Management of chronic diseases
 3. Wellness exams/disease prevention, leading to:
 4. Preliminary I.D. of disorders that are in the realm of intuitive medicine.
- Three different business models for jobs-to-be-done

Where will disruptions occur?

- #1 could be disrupted by retail clinics (fee-for-outcome, or a VAP model)
- #2 could be disrupted by networks that specialize in disease management (fee-for-membership, or facilitated network model)
- #3 and 4: Remain in current practices (intuitive medicine or solution shops).

Will Primary Care Physicians (PCPs) become less valuable?

- No. They will disrupt many jobs being done by specialists.
- How?
 - . New point-of-care diagnostics
 - . Online decision tools
 - . Telemedicine

This has already started...

- PCP practices have been doing EKGs, pulmonary function testing, etc.
 - . Next step: decentralizing more complex diagnostic tests
- SimulConsult is an online service to help physicians Dx neurological disease
- Telemedicine will allow GPs in more remote locations to utilize specialists in Dx and Tx

Current issues that will need to be solved...

- Shortage of PCPs and nurses
- Lack of coordination or integration of healthcare
 - . Many people with chronic diseases see multiple physicians
 - . Electronic Health Records (EHRs) would vastly improve coordination and lower costs

Why is it so hard to develop EHR's?

- EHRs are a systemic job-to-be-done, not local
- Any new technology must do a better job than what it replaces to be adopted
 - . EHRs don't help the average physician practice
 - . Financial leverage is # of patients seen, not efficiency of record keeping
 - . Physicians must bear costs of new system, but benefits accrue to patients, insurers and other healthcare providers

EHR's ARE useful in large systems...

- Mayo Clinic, Cleveland Clinic, Kaiser, etc. utilize proprietary systems
 - . Coordination/integration good within system
 - . BUT, are not portable
 - They do not talk to other systems
 - Finding a way to make them communicate is extremely difficult
 - Not in the interest of these organizations to force fit how they operate into a standard format so that other organizations can better care for their patients

Systemic EHR's could emerge via three paths...

1. Set a standard BEFORE the industry is established. Ex: GSM wireless standard in Europe
 - . Not a likely course with so many EHRs already in place
2. Virtualization - creating the PDF equivalent of health records
3. Coercion (governmental mandates)

What will emerge?

- A Personal Health Record (PHR) that is portable and readable by any system
 - Web-based most likely
 - The patient carries the PHR from provider to provider
providers don't supply them

Summary

- To innovate in the physician practice business
 1. Separate the multibusiness model practice into more efficient fee-for-service (solution shops), fee-for-outcome (VAP), and fee-for-membership (facilitated networks)
 2. PCPs will disrupt specialists by
 1. Point-of-care diagnostics
 2. Online decision tools
 3. Telemedicine
 3. Develop portable PHRs that go with the patient to help assure coordinated and integrated care

Next week

- Finalized teams
- Opportunities for innovation in chronic disease management