



Health Opportunities in China

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BACKGROUND

China As Number 1

Top population (1.4 billion – China's population has grown by 360 million since 1978. The U.S. has 330 million)

Top energy consumer

Top carbon emissions

Top foreign reserves

Top savings rate

Top manufacturer

Top exporter

Top executioner

U.S. Companies Doing Well in China

Yum! (KFC)	40%
General Motors	13%
Microsoft	99%
Boeing	52%
Nike	?
Coca-Cola	67%
Proctor & Gamble	
55%/hair	
Intel	15%
Starbucks	70%
Apple (tablets)	51%

In total, the number of American companies that are making money in China is not high nor is the number of companies increasing much.

- 67 American companies are profitable (2012)
- 8 companies are very profitable

Top Challenges for Foreign Companies in China

- Higher costs
- Competition with Chinese companies
- Administrative licensing
- Human resources
- Intellectual property rights enforcement
- Uneven enforcement of Chinese laws
- Transparency
- Standards and conformity assessment
- Foreign investment restrictions

Recommendations for Western Firms to Overcome Obstacles

- **Produce locally in China**
- **Have/develop a “high quality” product perception**
- **Put in much time and effort to:**
 - **Build a distribution network**
 - **Raise awareness of brands**

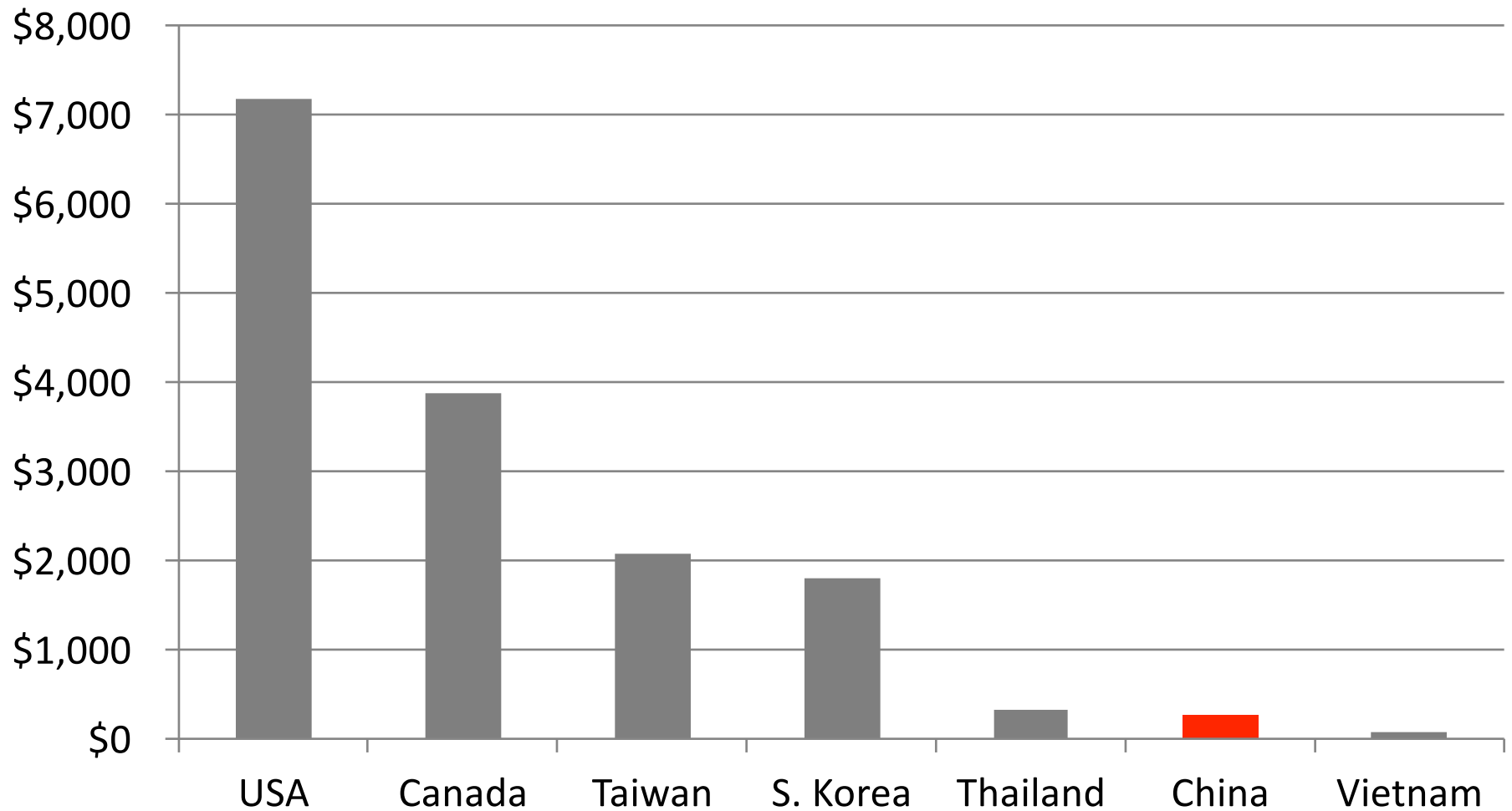
Today, Low Govt Spending on Health Care in China

- Chinese government spent \$200/person on health care in 2010
- Healthcare expenditures as % of GDP (2006)
 - China: 5.8%
 - USA: 15.3%

HEALTH REFORM

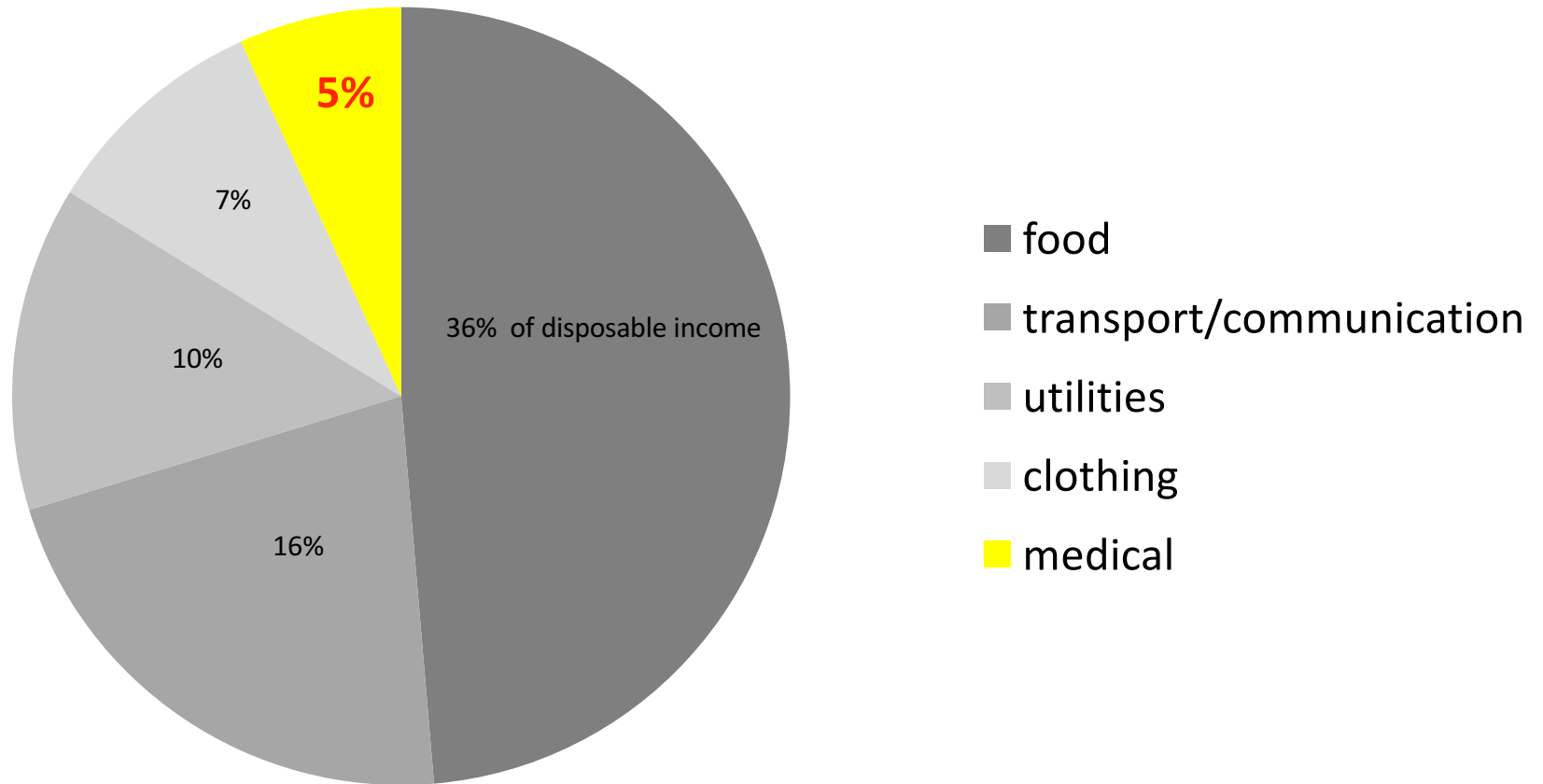
China Medical History Primer

- 1915 - Peking Union Medical School – Started by the Rockefeller Foundation
- 1949 - Barefoot doctors primary care system put in place by Mao Zedong
- 1965-1975 - Medical Education halted during the Cultural Revolution
 - Shanghai: 10,885 doctors (1950), 1,514 (1965), 0 in 1966
- 1979 – Economic modernization and restarting of Medical Schools (Deng Xiao Peng)
 - Fee for service private care started.



Per Capita Health Expenditure (2010)

Shanghai (2007)



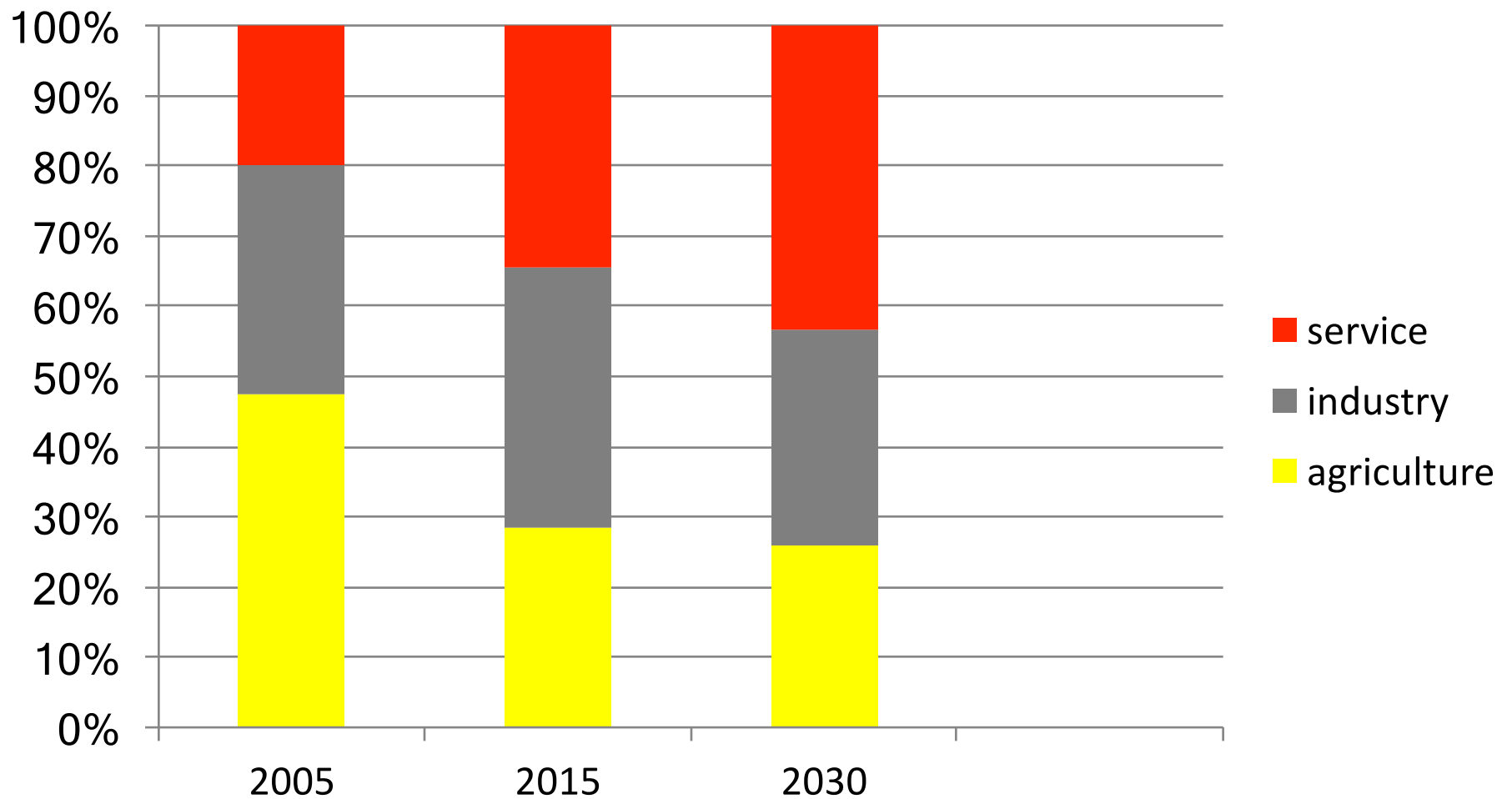
Low Average Consumer Expenditure for Medical

Health Reform (2009)

- Government commits to 16.5% increase in funds toward health per year until 2015
- Health insurance for all (universal coverage)
- Social insurance through employers in cities
 - High out-of-pocket expenses (30 to 50% co-pays)
 - Consultations with physicians specialists range from \$10 to \$16.
 - This will lessen the need for doctors to over-prescribe pharmaceuticals
- Government payouts to peasants in rural areas

Health Reform

- More health facilities and renovations of existing facilities
 - Traditional Chinese Medicine receives a big infusion of financial support
- Some hospitals are being allowed to vary prices and service offerings
 - A move toward a competitive health system
- Essential Drug Package
 - 400 drugs at all hospitals
 - Government is setting prices and getting large discounts
 - Almost 50% of the 400 drugs come from multi-national corporations

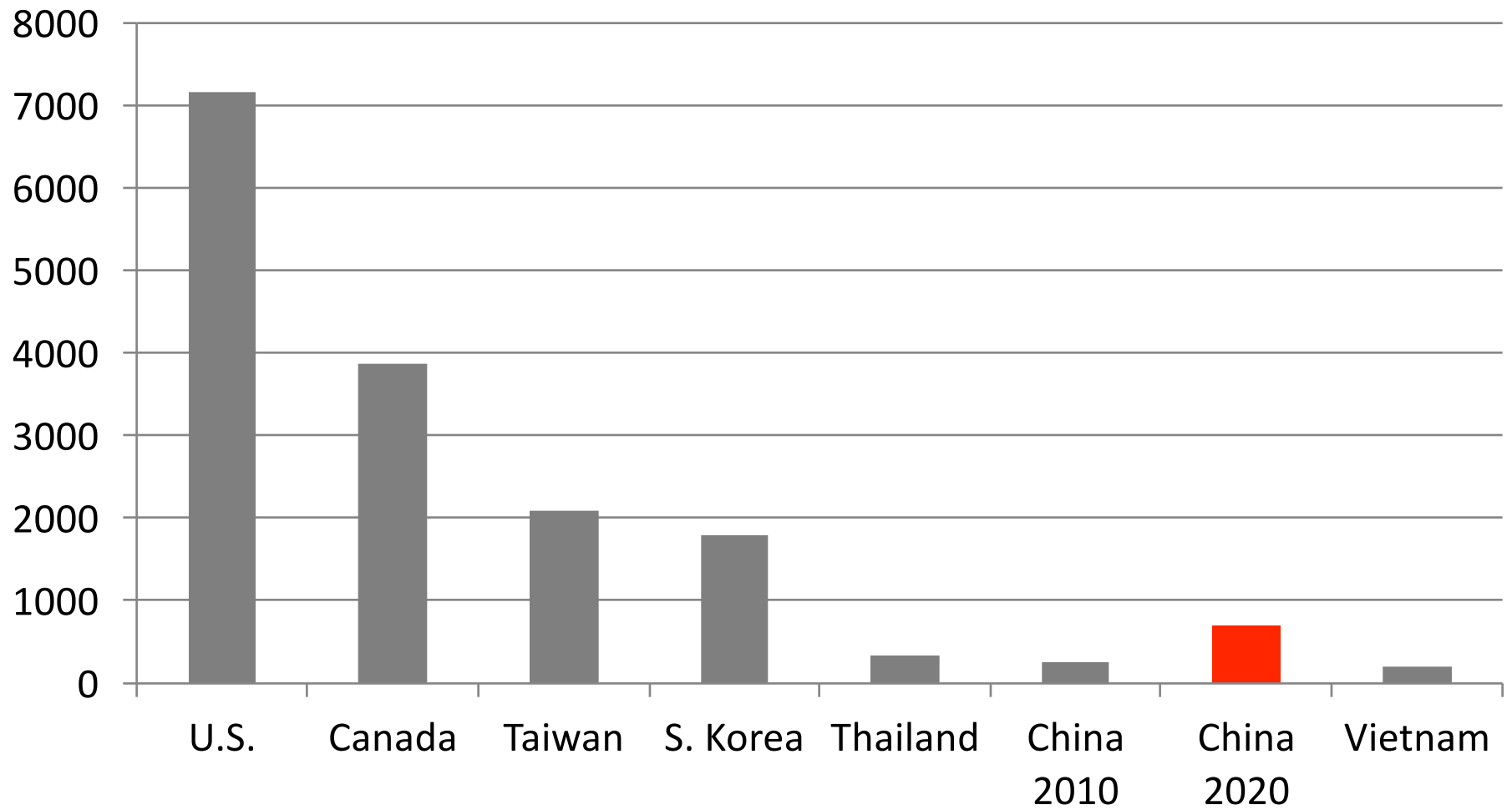


Expanding Service Sector Employment

	2006	2011	2020
Per Capita Health Expenditure	\$119	\$261	~ \$700
Total Health Expenditure	\$156Billion	\$357B	~ \$1Trillion
% with Health Insurance	43%	95%	~ 95%

* China Health Statistics Year Book

Quickly Increasing Health Spending in China



Comparing China's 2020 Per Capita Expenditure for Health Care

Physician Practice

- No private practice – all physicians are employed by a hospital and practice in the hospital.
- Salaries are very low by western standards. A typical physician earns around \$6,000 per year.
 - Consideration is being given to increasing physician pay to \$17,000/year for high level specialists
- Healthcare delivery is high-volume and impersonal with a heavy emphasis on pharmaceutical and diagnostic services.

Example Of Poor Medical Care

- Full Body Rash
 - Several other patients and a janitor gathered around to hear the prognosis
 - Based on air in Yunnan; It is different than Beijing
 - Based on spicier food in Yunnan
 - Based on different water in Yunnan
 - Suggestion: Leave Yunnan and go back to Beijing

Under the Knife, New Yorker Magazine, 8/25/14

Violence Against Medical Personnel

- Violence has increased 23% on average each year from 2002 to 2012
- “Malpractice mobs” – 20 guys go to hospital to get a settlement (avoid court). They share 50% of the profit with the patient’s family
- On average, a Chinese hospital has 27 attacks/year!

Chinese Hospital Association, 2012

Health Demographics

- Chronic disease conditions proliferating rapidly
 - 92 million diabetics and 150 million pre-diabetics
 - In comparison, the U.S. currently has 27 million diabetics
- Cancer / Respiratory & Depression – under-diagnosed
 - 2 million new cancer cases per year, but facilities are only able to handle about 400,000 patients/year (2007)

Rapidly Aging Society

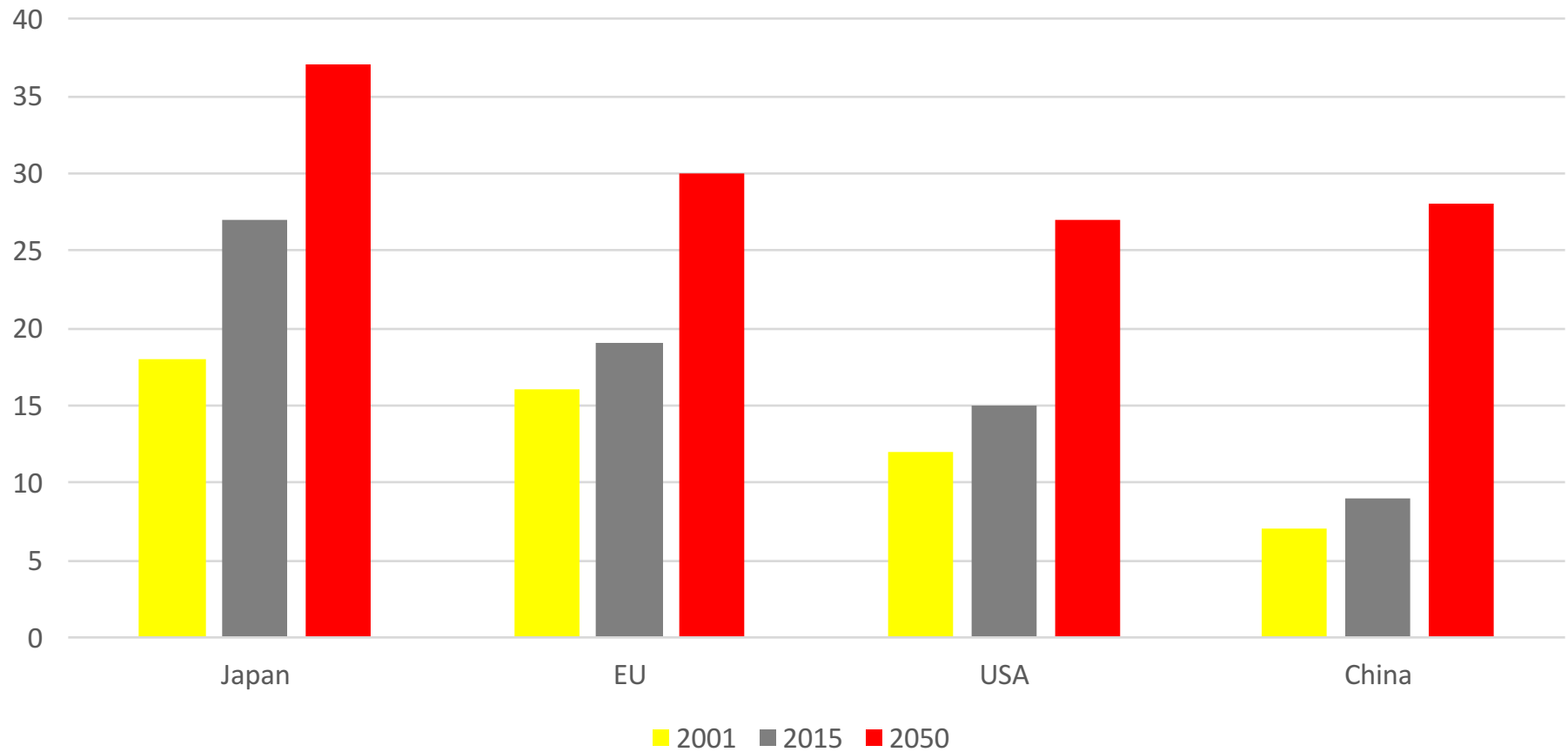
Senior Care is Just Developing

- 65+ will be $\frac{1}{4}$ of the Chinese population by 2050
- Today, there are 8 working age adults for every senior
 - By 2050, there will be 2.5 workers/senior
 - The one child policy was in place from 1979 to 2015



65+ Population (% of Total Pop'l)

Chart Title



A Different Approach

Confucian-based Society

- The government has relied on “filial piety.” Families are expected to live together and provide for their old and/or sick relatives. This has been the government’s approach to “social security” of China
- Today, 90-7-3 Policy. 90% of seniors live with family, 7% in community centers, 3% in senior homes



OPPORTUNITIES

**Pharmaceutical, Medical Device, Insurance, Bio-Medical,
Health Services**

PHARMACEUTICAL

	2006	2011
Total Pharma Expenditure	\$27B	\$71B
Global Ranking	9 th	3 rd
Total Revenue of Top 10 Pharma Co.	\$4B	\$10B
# of Sales Reps for Top 10 Pharma Companies	6,000	>25,000

* Chinese Pharmaceutical Association

China Pharmaceutical

Multi-National Corporate Partnering in China

- 5% of China's GDP in 2010. Expected to be 15% by 2020
 - Government is standardizing bio-medical industries.
- MNCs are teaming up with Chinese companies
 - Sectors: pharmaceuticals, consumer health, vaccines and medical devices
- Pfizer is planning a joint venture with Hisun Pharma
 - Generic drugs, low-cost manufacturing and R&D capacity
 - Also, working with Shanghai Pharma, including a \$50M investment in their IPO

Pharmaceuticals

- Revenues

- China is already in top 3 of revenue producing nations for Bayer and Novo Nordisk

- Retail Pharmacy

- Trying to move medications outside hospitals and into retail pharmacies
- Hospitals used to handle 60 to 80% of all pharmaceutical sales
- Retail pharmacy sales now growing by >20% per year

- Sales Force

- 10 largest MNC Pharmaceuticals have a sales force over 25,000. More than in the U.S.
- Pharmaceutical sales forces have been downsized in Europe and the U.S. in recent years

MEDICAL DEVICES

	2006	2011
Market Size	\$8B	\$20B
Global Ranking	6 th	3 rd
TCM Market Size	\$6B	\$13B

* Southern Medicine Research Institute

China Medical Device

Medical Device

- Emphasis on bringing in state-of-the-art medical devices
- New facilities as a result of health reform:
 - 2,000 county hospitals
 - 2,400 urban hospitals
 - 3,700 community clinics
 - 11,000 urban clinics
- Revenues: GE and Philips now have \$1B annual sales in China/growing quickly

Difficulties

- Product registration, reimbursement, tendering, pricing and distribution can be problematic for MNCs
 - Not standard: Conditions vary at provincial, city and even hospital level
- Beijing government is said to be aiming for 20-30% price reductions on some medical devices

INSURANCE

Insurance

- Private insurance sales have increased from \$3.8B (2004) to \$8.6B (2008)
 - Many U.S. firms have already set up shop for supplemental insurance coverage
- “Domestic insurers are ill equipped to deal with the complexity of the health insurance business.”

HEALTH SERVICES

The Chinese Hospital

- 17,844 hospitals (v.s. 5,200 in U.S.)
 - 10% are private hospital
 - Less than 2% are estimated to be foreign-invested
- Management systems are inefficient.
- Most hospitals are not run as businesses, but as government agencies.

	China	US
Average Length of Stay per Patient	10.9 days	5.5
Admissions per 1,000 population	47.1	136.0
Accounts Receivable in Days	0	57.8
Pharmacy as % of Total Revenues	55%	18%
Average Malpractice Claim	\$500	\$300,000

US vs. CHINA

Hospital Comparison

Limited Management Capacity

- No governance structure
 - No trustees to oversee hospital
 - No mission statements or strategic objectives
- Administrators aren't trained
 - Clinicians rotate annually as administrators
 - No organizational chart, lines of authority
 - Community party influence
- No Chief Financial Officer
 - Senior finance person has principal responsibilities for cashiering
 - No operating budget or cost center budgeting

System Decentralization

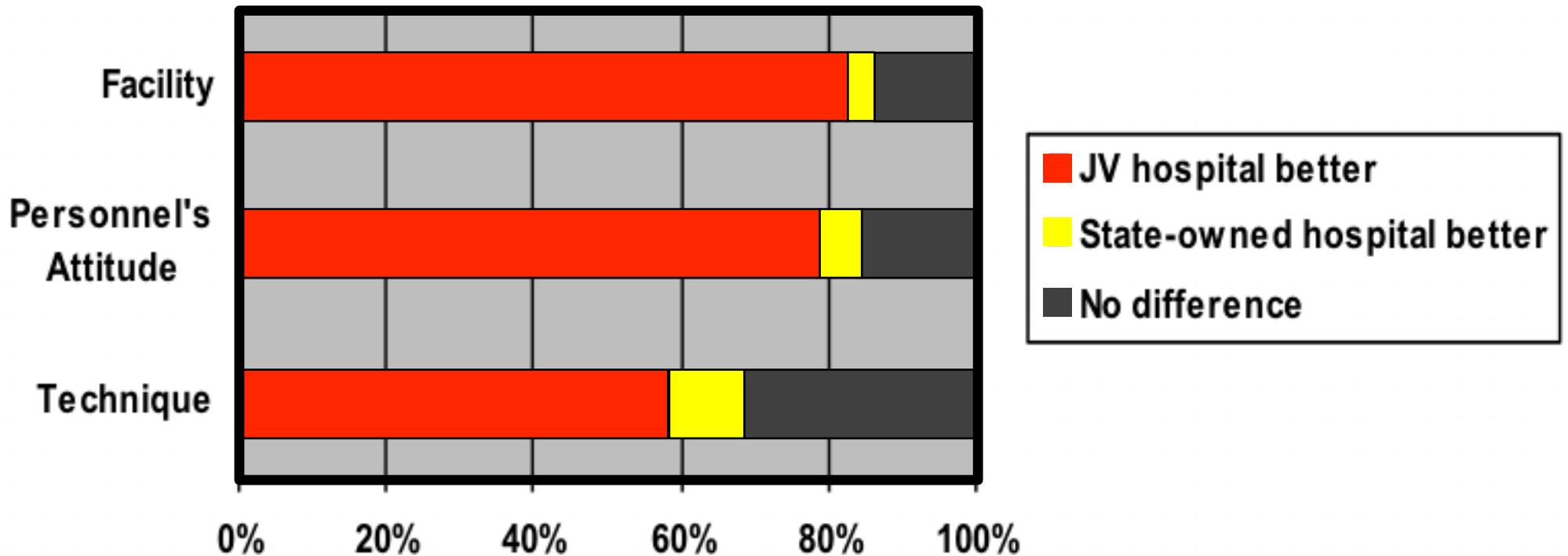
- Patients prefer to visit the primary care hospitals (in urban areas)
 - Long lines every day
 - This is due to perceptions (and maybe reality) of physician capabilities
 - Secondary and tertiary hospitals are under-utilized
- The Government is trying to establish a better primary care system, including referrals to hospitals

Hospital Physical Plant

- Poorly maintained with inadequate environmental and maintenance services
 - Lack of cleanliness
 - Fewer housekeepers than international hospitals
- No mandated codes or requirements for Chinese hospitals
 - Door width, ceiling height, number and type of gas outlets/bed, ventilation requirements, airflow and handling capabilities, etc.
 - As such, infection control is a problem

	CHINA	US
Physicians per 1,000 Population	1.4	2.6
Physicians per Hospital Bed	.6	.9
Nurses per Hospital Bed	.4	2.8

US vs. CHINA Staffing



**Western Joint Venture Hospitals
Seen as Being Better**

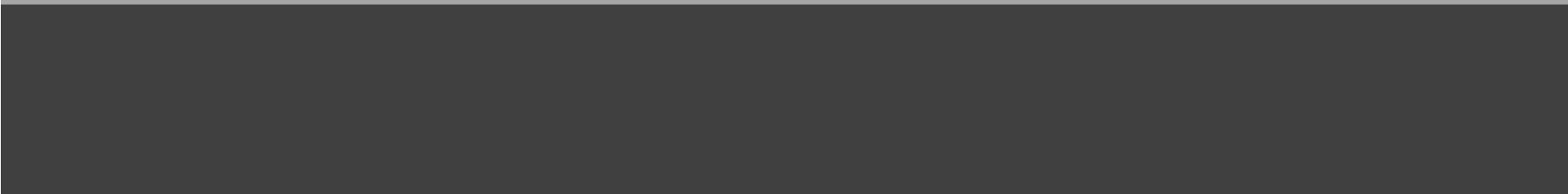
DISSATISFACTION REASON	PERCENTAGE
Long Waiting Line	64.0%
Bad Personnel Attitudes	54.1%
Qualification of Doctors	35.5%
High Price or Overcharge	32.6%
Poor Physical Environment	22.7%
Inconvenient Location	6.4%

* Results from Surveys in Shanghai & Beijing

High Dissatisfaction with Chinese Hospitals

Survey Indicates that Wealthier Chinese Want:

BETTER MANAGEMENT

- Clean, well-maintained hospitals
 - Courteous staff
 - A personal physician not numerous physicians
 - Greater privacy and dignity
 - More involvement in medical decisions
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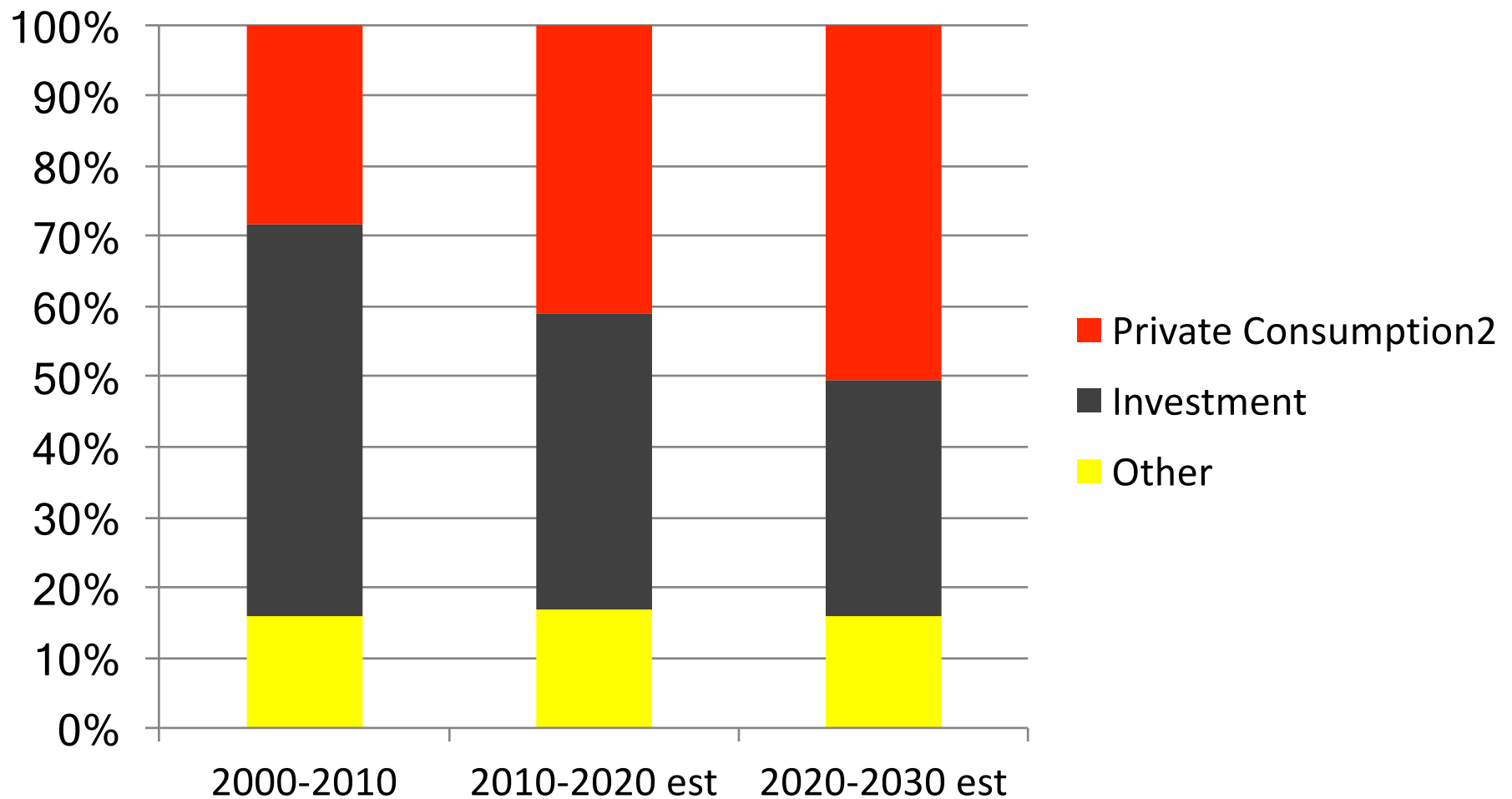
WILL THEY PAY?

Will the Chinese Pay Western Health Services' Prices?

- Increasing appreciation for western health technique
 - 60,000 Chinese went to Taipei for western trained doctor care in 2012
 - Number of patients using JV hospitals doubled between 2003 and 2007
- Increasing willingness to pay for certain services
 - Chinese flooding into Hong Kong for maternity care at western hospitals
 - 2.85 million Chinese went to private hospitals in 2007; this is up from 1.5 million in 2003.
- Increasing interest in western standards of care
 - 3 Joint accredited hospitals in 2008; 33 today.
 - As a middle class emerges, they are starting to spend (real estate, wine, electronics), but are still quite frugal, especially for health services

Pricing Comparison (2009)

- At a western Joint Venture hospital it costs approximately \$5,800 for maternity care, including pre- and post-natal care.
- General baby care at a public hospital in Beijing costs from \$400 to \$700.



Consumption as a Factor in China's GDP Growth

2012 est	# Households	Consumption
Global	2	9
Affluent	3	2
Mass Affluent	1	5
Upper Aspirant	12	15
Aspirant	54	54
Lower Aspirant	17	11
Poor	12	4

2030 est	# Households	Consumption
Global	10	30%
Affluent	16	18
Mass Affluent	32	30
Upper Aspirant	17	13
Aspirant	14	7
Lower Aspirant	6	2
Poor	7	1

Consumption by Urban Households by Income Bracket

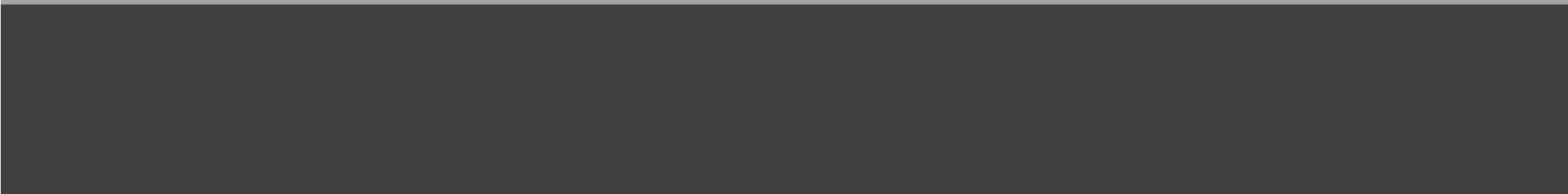
CASE STUDIES

Capitis International Healthcare vs. Proactive Medicare

Case #1: Capitis

- Located in Colorado
 - Joint venture with Capitis China LTD in Hong Kong
- Strong executive team
 - Columbia HCA, supply chain management
 - Leading Chinese physicians involved
- Target Market
 - Upper middle class Chinese (5 million nationals)
 - Expatriates (500,000)
 - Multinational companies
 - Foreign embassies
 - Tourists (3 million annually)

Centers of Excellence

- Cardiovascular Center
 - Diagnostic and Interventional Center
 - General and Family Medicine Center
 - Neurosurgery Center
 - Reproductive Health Center
 - Ortho and Rehabilitation Center
 - Plastic Surgery Center
 - Ophthalmic Surgery Center
- 

Ambitious plan:

- 3 - 250 bed referral hospitals in hub/spoke system
- Will provide primary, secondary, and tertiary care services throughout China



Hospital Referral Network

Case #2 – Proactive Medicare

- Based in Austin, Texas
 - Joint venture corporation in Hong Kong
 - Very strong familial connections in Hong Kong
- Excellent hospital management experience
 - HCA/Columbia background: strategy and operations
- Already operating a couple of private units within public hospitals
 - Has been successful securing financing

Strategy: Clinics First, Hospitals Later

- Maternity and cardiovascular units first
- After clinics are established, they will build referral hospitals

Goal: Acceptance in China

- Trying to be a Chinese hospital with international sophistication
 - Built semi-private units within existing public hospitals
- Cost of care at PM is about half the cost of care in other international hospitals
 - Not just focusing on expatriates
 - Attempting to win over the upper, middle class Chinese

Comparing Strategies

CAPITIS

- Goal: top Intl Hospital
- Excellent Mgmt team
- Hospital-based strategy
 - All Services
- High end market

PROACTIVE MEDICAL CARE

- Goal: top Private Hospital
- Excellent Mgmt team
- Clinic-based strategy
 - 1 or 2 services
- Mid to high end market

First Day at Proactive Medicare's Maternity Unit





QUESTIONS?