Opportunity in the Changing Landscape of China Healthcare
The Dorenfest Group

- 40 years experience in H.I.T.
- Offer healthcare improvement services
- Focus on improving patient care and operational efficiency through better change management
  - Work process improvement
  - Management systems improvement
  - Improvement in services for patients
  - Improvement in quality of patient care

1. Visited 17 cities in China
2. Met 100’s of healthcare industry leaders in China
3. Visited over 100 hospitals to review hospital operations and define opportunities for improvement
4. Met provincial and city health bureau leaders in cities visited
5. Met with many companies selling products and services to the healthcare industry in China
6. Evaluated a group of hospital ownership and management opportunities and assessed viability of the Dorenfest “model hospital” in China
7. Developed a strategy for bringing Dorenfest skill and experience to China
China Healthcare Leaders Want to Leapfrog the World in I.T. Use

- Chinese Hospitals and Health Bureaus Are Carefully Considering How to Be More Successful in Taking Next Steps Forward in I.T. Use

- There Is a Recognition That for China to Accomplish Its Objectives in H.I.T. Requires the Following:
  - Learning Quickly From the Global Experience
  - Overcoming Resistance to Change
  - Knowing How to Manage Change
  - Doing More of What the Rest of the World Did Right and Less of What They Did Wrong to Avoid Mistakes Other Countries Have Made and China Is Still Making
  - Developing More Expertise in These Areas of Need Quickly
Examples of Dorenfest Projects in China

- Some health bureau clients for RHN and digital hospital planning
  - Shenzhen
  - Chongqing

- Some hospital clients
  - Peking University Third Hospital
  - Shanghai Changning Maternity & Infant Health Institute
  - Rizhao City People’s Hospital

- Help clients from other locations bring their skills to Mainland China
  - Hong Kong Hospital Authority
  - Microsoft
  - Philips
The Development of Healthcare in China

1. In the change to a more market driven economy in China, there was a shift from government funding of the healthcare system to citizen funding, which has made China the highest “patient pay out of their pocket” healthcare system in the world.

2. China’s healthcare spending has made it one of the most efficient healthcare systems in the world.

3. China’s outpatient care has followed a different model than the rest of the world, with most outpatient care now provided on hospital campuses.

4. Most country’s healthcare systems now have problems, which generally come from not managing past changes properly.

5. China, on the other hand, has not changed its healthcare system as rapidly as other countries, so its problems are different.
Customer Service Has Been a Lower Priority

1. Long wait times

2. Very few advance appointment systems

3. Average time of physician visit is 2-5 minutes

4. Collecting money and making profits are a major focus
Outpatient Registration is an Example of the Problems of Being an Efficient Investor
Challenges of the Chinese Healthcare System

1. Almost 60% of healthcare costs are paid directly by patients out of their pocket.
2. Access to healthcare for the poor has been limited, but now changing.
3. The middle and upper classes are dissatisfied with healthcare services.
4. Doctor income earning methods weaken the doctor-patient relationship.
5. Drugs and tests fund too much of the healthcare system.
6. Hospitals need to earn profits to support themselves.
7. Primary care is just beginning to separate from hospitals to newly-developed community clinics.
8. Healthcare reform will cause healthcare costs to rise more rapidly.
Healthcare Reform in China Is Bringing Many Changes

1. Basic care for people in China who cannot afford to pay for care

2. Large stimulus spending will be made to improve healthcare.

3. Many major changes are planned all at once. Some are:
   - Public hospital reform
   - Community clinics
   - Modernizing facilities
   - Clinical pathways
   - Regional health networks
   - Electronic health records
   - Many more

4. The challenge for China and the opportunities for wise businesspeople is in the management of all of these changes in a short period of time to accomplish the desired outcomes
China Healthcare Spending Will Grow Rapidly

SOURCE: MINISTRY OF HEALTH ANNUAL STATISTICS YEARBOOK
The Development of H.I.T. in China

- Chinese Hospitals Began to Computerize in the Early 1990s
- The Initial Focus of Computer Efforts Was on Financial Systems
- In the Early 2000s, Chinese Hospitals Began to Implement I.T. for Clinical Systems
- Many Software Solutions Are Now Available, With Several Hundred Smaller Software Companies Emerging
- Between 2005 and 2010, China Hospital Spending on I.T. Grew From $600 Million (USD) In 2005 to Almost $3 Billion (USD) Expected To Be Spent in 2010
- This Rapid Growth in Spending Will Continue Over the Next Several Years
Factors Contributing to Future Spending Growth in China H.I.T.

1. China Hospital Work Processes Are Redundant, Expensive, And Error-prone

2. In 2003, the Ministry Of Health (MOH) Issued Guidelines for Health I.T. Development Which Called for All Cities in China to Implement RHN and Digital Hospital Programs by 2010
   - Gave Momentum to Hospitals to Purchase Clinical Systems
   - Very Slow Progress Towards Stated Goals During the Policy Period

3. Improved Use of I.T. Is One of 8 Pillars of the New China Healthcare Reform Plan. Focuses Include:
   - Improved Hospital I.T. Systems
   - Electronic Health Records
   - Data Sharing Through RHNs and Integration With Community Clinics
   - I.T. Systems to Support Expanded Health Insurance

4. Chinese Hospital Leaders Want to Take a Big Leap Forward in Improving Work Processes and in Digitizing Chinese Hospitals
The Competitive Environment

- There Are Hundreds of Small Software Vendors Active in China H.I.T.
- The Market Segments With the Most Vendors Are H.I.S., PACS, R.I.S., Lab, and EMR
- All H.I.T. Vendors in the Market Started in a City And Most Are Still Operating in That City or a Small Region Around the City. Some H.I.T. Vendors Are Becoming More National in Scope
- Many Vendors in the Hospital Computer Systems Market Offer Heavily Customized Solutions Rather Than Products. These Heavily Customizable Solutions Create Greater Dependency on the Software Vendor and Are More Difficult/Expensive to Keep Current When Vendors Release New Software Updates Periodically
- Chinese Hospital Leaders Would Like to See a New Generation of H.I.T. Software Developed for the Country to Assist in Helping Them Accomplish Their “Leapfrog” Objectives
Allocation of H.I.T. Investment Around the World

2005 GLOBAL H.I.T. INVESTMENT STRUCTURE

Global: 58.9% Service, 28.9% Software, 12.2% Hardware

U.S.: 66.6% Service, 20.2% Software, 13.2% Hardware

Europe: 51.5% Service, 27.8% Software, 20.7% Hardware

SOURCE: CCW Research
Today Chinese Hospital H.I.T. Investment Is Spent Differently Than the Rest of the World

### 2005 GLOBAL H.I.T. INVESTMENT STRUCTURE

<table>
<thead>
<tr>
<th>Region</th>
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<th>Hardware</th>
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**Source:** CCW Research

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2010 China Healthcare Reform and Medical Industry Summit

Dorenfest China Healthcare Group
This conference offers a great learning opportunity

Presentations from the Ministry of Health, Major Hospitals, and Health Bureaus will provide great learning opportunities

Presentations from companies serving the healthcare industry in China will point out opportunities and challenges

Enjoy yourselves and learn a lot
THANK YOU.

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