Global Healthcare Outlook & Supply Chain Implications: Themes

**Structural Growth Drivers**
- Global demographic trends
- Income growth, development stage
- Innovation

**Industry Outlook**

**Production & Trade Patterns**

**Supply Chain Implications**
Healthcare Sector Performance Through the Great Recession

Sales per Share (Index, 2004=100)

Source: Bloomberg
Aging Global Population – A Structural Tailwind for Healthcare

Share of World Population Aged 65 and Over (%)

UN World Population Growth (%/yr)

<table>
<thead>
<tr>
<th></th>
<th>65+</th>
<th>85+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>to 2021</td>
<td>3.2%</td>
<td>3.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>to 2031</td>
<td>3.2%</td>
<td>3.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>to 2041</td>
<td>3.1%</td>
<td>3.9%</td>
<td>0.9%</td>
</tr>
<tr>
<td>to 2051</td>
<td>2.8%</td>
<td>3.8%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Source: United Nations
Demographic Shift is Global

- Over the next 20 years, less developed regions expected to add >3.5x more to 65+ population than developed regions

- China will add more to 65+ population than entire developed world combined

- Asia to have 60% of world’s population over 65 years of age by 2040

Source: United Nations
Health Expenditures Increase Significantly with Age

Per Capita U.S. Personal Healthcare Spending by Age Group (in dollars)

Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. 2004 data.

Per Capita U.S. Spending on Drugs & Medical Products by Age Group (in dollars)

Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. 2004 data.
Healthcare Spending a Greater Priority as Development Advances

- Strong relationship between income and healthcare expenditures’ share of GDP
- Spending priorities change with incomes
- Social safety nets become more prevalent with development
- Health spending % of GDP:
  - OECD Average 9.5%
  - China 5%
  - India 4%

Suggests global opportunity as development stage advances

Source: OECD
Global Economic Outlook

$ Change in Real GDP, 2013-2023

Source: Economist Intelligence Unit, Haver Analytics
Innovations Promise Huge Growth Potential for the Industry

• Healthcare innovation: supply creates its own demand
• Customization in treatment: the economics of genomics
• The human condition: no matter how much progress we make, we will never lack for ailments to treat
Medical Device Manufacturing is Booming in the United States

Manufacturing Shipments
in Millions of 2005 Dollars


- Medical Devices (Left Axis)
- Total All Manufacturing (Right Axis)

Sources: BEA and FedEx Corporate Economics
Productivity Growth in the Medical Device Manufacturing Sector has Been Impressive

Productivity Growth
Annual Average
2000 to 2011

Non-Farm Business 2.3%
All Manufacturing 3.5%
Medical Device Manufacturing 7.3%

Sources: BEA, Census and FedEx Corporate Economics
Industry Overview & Outlook – Medical Devices & Supplies

<table>
<thead>
<tr>
<th>U.S. Medical Devices &amp; Supplies</th>
<th>2013 Sales ($millions)</th>
<th>Annual Growth 2013-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Device Manufacturing</td>
<td>$35,195</td>
<td>7.0%</td>
</tr>
<tr>
<td>Medical Instruments &amp; Supplies Mfg</td>
<td>$91,720</td>
<td>3.9%</td>
</tr>
<tr>
<td>Medical Supply/Device Wholesaling</td>
<td>$157,436</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Source: IBISWorld 2013 estimates & forecasts

- Attractive growth rates expected for Medical Devices
- Aging populations, technological advances support growth
- Healthcare cost containment measures, customer consolidation challenging to industry pricing
- Emerging markets (esp. China and India) big opportunities
U.S. Trade in Medical Devices

Export Growth

Import Growth

Exports To...
- Japan: 13%
- Netherlands: 10%
- Canada: 9%
- Germany: 8%
- Other: 60%

Imports From...
- Mexico: 15%
- Ireland: 13%
- China: 13%
- Germany: 11%
- Other: 48%

Source: USITC, ITA
Industry Overview & Outlook - Pharma

- Global pharmaceuticals and medicine manufacturing a ~$1 trillion business
- Near term growth challenged by patent expirations
- Solid growth in biologics, generics
- Growth strongest outside developed world

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<tbody>
<tr>
<td>North America</td>
<td>347.1</td>
<td>3.5%</td>
<td>1 - 2%</td>
<td>1 - 4%</td>
</tr>
<tr>
<td>Europe</td>
<td>265.4</td>
<td>4.9%</td>
<td>0 - 1%</td>
<td>0 - 3%</td>
</tr>
<tr>
<td>Asia / Africa / Australia</td>
<td>165.2</td>
<td>15.5%</td>
<td>10 - 11%</td>
<td>10 - 13%</td>
</tr>
<tr>
<td>Japan</td>
<td>111.2</td>
<td>3.9%</td>
<td>0 - 1%</td>
<td>1 - 4%</td>
</tr>
<tr>
<td>Latin America</td>
<td>66.7</td>
<td>12.3%</td>
<td>13 - 14%</td>
<td>10 - 13%</td>
</tr>
<tr>
<td>Total World</td>
<td>955.6</td>
<td>6.1%</td>
<td>3 - 4%</td>
<td>3 - 6%</td>
</tr>
</tbody>
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Source: IMS Health Market Prognosis, May 2012
Global Production & Trade - Pharma

**Global Pharma Production by Region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>North America</td>
<td>43.0</td>
</tr>
<tr>
<td>Europe</td>
<td>35.0</td>
</tr>
<tr>
<td>North Asia</td>
<td>15.0</td>
</tr>
<tr>
<td>India &amp; Central Asia</td>
<td>3.0</td>
</tr>
<tr>
<td>Oceania</td>
<td>1.5</td>
</tr>
<tr>
<td>South America</td>
<td>1.5</td>
</tr>
<tr>
<td>Africa &amp; Middle East</td>
<td>0.5</td>
</tr>
<tr>
<td>South East Asia</td>
<td>0.5</td>
</tr>
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</table>

Source: IBISWorld 2011

**Top 10 Exporters of Drugs & Medicines**

<table>
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<tr>
<th>2012 Share</th>
<th>2030 Share</th>
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<tbody>
<tr>
<td>Germany</td>
<td>14%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>9%</td>
</tr>
<tr>
<td>United States</td>
<td>9%</td>
</tr>
<tr>
<td>Ireland</td>
<td>8%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7%</td>
</tr>
<tr>
<td>France</td>
<td>7%</td>
</tr>
<tr>
<td>Belgium</td>
<td>6%</td>
</tr>
<tr>
<td>Italy</td>
<td>5%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4%</td>
</tr>
<tr>
<td>Spain</td>
<td>3%</td>
</tr>
</tbody>
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Source: Global Insight
Increasing Supply Chain Complexity

• Regulation increasing complexity
• Geographic activity centers moving from developed to emerging markets (China, India, Brazil)
• M&A driving consolidation, supply chain optimization
• Biologics growth = more cold chain shipping, storage
Several Opcos Support Healthcare Strategy at FedEx

Revenues: $42 billion
People: More than 300,000
Volume: More than 9 million shipments daily
Reach: More than 220 countries and territories

FedEx Corporation

FedEx Services
FedEx Office
FedEx TechConnect
FedEx SupplyChain
FedEx Trade Networks
FedEx Home Delivery
FedEx Smart Post
FedEx Freight
FedEx Custom Critical
FedEx Ground
FedEx Truckload Brokerage
FedEx Commitment to Healthcare

Market Presence
- 35 Year Experience
- 220 countries & territories
- More than 11,000 customers in all segments

FedEx cares:
Health and Human Services Contributions

American Red Cross
Direct Relief International
ORBIS
saving sight worldwide

unicef
United Way