Asia’s Diabetes Challenge

Karl-Heinz Jung
Head, Japan, Mena & International

12th Geneva Association Health and Ageing Conference
“Insuring Health Care for the Elderly in Asia”

16-17 November 2015, Singapore
Asia’s Diabetes Challenge

12th Geneva Association Health and Aging Conference

Karl-Heinz Jung
Head, Japan, MENA & International

In Asia. For Asia.
1. Facts about Diabetes
2. Asia Feeling the Heat
3. Case for Private Insurance Solutions
4. Key Takeaways
Facts about Diabetes

- It’s a **chronic** disease, and there is **no cure**!
- Occurs when the body cannot **produce** enough insulin or cannot **make good use** of it.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Type 1</th>
<th>Type 2</th>
<th>Gestational</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Produce</strong></td>
<td>little or no insulin</td>
<td>Insulin resistance or relative insulin deficiency</td>
<td>Occurs during pregnancy</td>
</tr>
</tbody>
</table>


| Complications    | • Heart attack and stroke  
|                  | • Kidney failure  
|                  | • Reduced vision or blindness  
|                  | • Nerve damage leading to limb amputation  
|                  | • Cancer | • Delivery problems  
|                  |        | • Low blood sugar in baby after birth |

| Prevention       | Unpreventable. Patients need daily insulin injections. | Can be managed through exercise and diet. Most patients need oral drugs and / or insulin. | Unpreventable |

Source: International Diabetes Federation (IDF), World Health Organization (WHO), American Diabetes Association (ADA)
1. Facts about Diabetes
2. Asia Feeling the Heat
3. Case for Private Insurance Solutions
4. Key Takeaways
Number of People (20-79 years old) with Diabetes, 2014

- **Asia:** 243m
- **Europe:** 42 m
- **Africa:** 37 m
- **LatAm:** 35 m
- **N. America:** 29 m
- **Oceania:** 2 m

**Total:** 387m

Source: Data from International Diabetes Federation (IDF)
## China and India in the Lead

**Top 10 countries by number of people with diabetes (20-79 years, 2014)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Number of People with Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>96.3m</td>
</tr>
<tr>
<td>2</td>
<td>India</td>
<td>66.8m</td>
</tr>
<tr>
<td>3</td>
<td>USA</td>
<td>25.8m</td>
</tr>
<tr>
<td>4</td>
<td>Brazil</td>
<td>11.6m</td>
</tr>
<tr>
<td>5</td>
<td>Indonesia</td>
<td>9.1m</td>
</tr>
<tr>
<td>6</td>
<td>Mexico</td>
<td>9.0m</td>
</tr>
<tr>
<td>7</td>
<td>Egypt</td>
<td>7.6m</td>
</tr>
<tr>
<td>8</td>
<td>Germany</td>
<td>7.3m</td>
</tr>
<tr>
<td>9</td>
<td>Turkey</td>
<td>7.3m</td>
</tr>
<tr>
<td>10</td>
<td>Japan</td>
<td>7.2m</td>
</tr>
</tbody>
</table>

Source: IDF

- ~ 243m cases in Asia out of 387m globally
- US$120bn diabetes-related expenditure in Asia
Diabetes Prevalence Growing Fast!

- Strong growth in prevalence, especially among developing economies

- Solutions are falling behind growing problems

![National Prevalence Rate Across Selected Asian Economies](chart.png)

Source: IDF
More Young People Impacted

Percentage of Diabetes Cases Accounted by Young Adults (20-39 yrs old)

- Underlying drivers: Urbanization and undesirable lifestyle changes
- Significant implications: Individuals, public & private schemes

Source: IDF, ACR
Individual Spend Rising

- **Macro view**
  - Increase in income per capita allowing more medical spent
  - General medical inflation

- **Disease-specific**
  - Duration with diabetes
  - Choice of drugs and treatments

### Diabetes-related Expenditure

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean Expenditure per Patient</th>
<th>2007-2014 CAGR (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>2,144</td>
<td>18%</td>
</tr>
<tr>
<td>Singapore</td>
<td>2,858</td>
<td>12%</td>
</tr>
<tr>
<td>Japan</td>
<td>4,908</td>
<td>8%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>150</td>
<td>26%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>175</td>
<td>26%</td>
</tr>
<tr>
<td>Philippines</td>
<td>205</td>
<td>23%</td>
</tr>
<tr>
<td>China</td>
<td>421</td>
<td>21%</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>74</td>
<td>18%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>123</td>
<td>18%</td>
</tr>
<tr>
<td>India</td>
<td>95</td>
<td>17%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>43</td>
<td>14%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>565</td>
<td>13%</td>
</tr>
<tr>
<td>Thailand</td>
<td>285</td>
<td>11%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>88</td>
<td>6%</td>
</tr>
<tr>
<td>Oman</td>
<td>1,069</td>
<td>15%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>1,949</td>
<td>14%</td>
</tr>
<tr>
<td>Qatar</td>
<td>2,748</td>
<td>12%</td>
</tr>
<tr>
<td>UAE</td>
<td>1,967</td>
<td>10%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1,067</td>
<td>9%</td>
</tr>
<tr>
<td>Bahrain</td>
<td>1,196</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: IDF, ACR

*Constant exchange rate
### Pressure Mounts on Public Funds

#### Recent and Upcoming Developments

<table>
<thead>
<tr>
<th>Country</th>
<th>Timeline</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>Nov 2014</td>
<td>Expanded national health insurance program to all senior citizens</td>
</tr>
<tr>
<td>Singapore</td>
<td>Nov 2015</td>
<td>Expanded national insurance scheme to be compulsory and universal, lifetime coverage with no lifetime claim limit and include pre-existing conditions</td>
</tr>
<tr>
<td>China</td>
<td>End-2015</td>
<td>Expand medical insurance to cover all major illnesses for urban and rural residents participating in the basic medical insurance system</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2019</td>
<td>Mandatory enrollment in national system for all Indonesians</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2020</td>
<td>Social health insurance for 80% of population, from targeted 70% of population in 2015</td>
</tr>
</tbody>
</table>

**Indonesia**
- Non-mandatory national health insurance system, US$243m deficit in 2014
- Projected deficit in 2015, >US$900m
- May raise premiums by end-2015

**Thailand**
- 2013 public health spending, US$14b
- 2013 fiscal deficit, US$7.7b
- Fiscal deficit expected to widen in FY15/16 and FY16/17

Source: The World Bank, WHO, ADB, various news sources
China’s State Council has decided to introduce the medical insurance scheme on serious illnesses across the nation (July 2015)

- Main purpose is to **solve the problem of poverty** caused by major/chronic diseases.
- By end of 2015, all residents participating in the basic medical insurance system for rural and urban residents will be covered.
- Scheme will be **run by private insurance institutions** and be financed from the basic medical schemes.
- **A chronic disease** can also be a major illness.
- Eligible are households where health expenditure equals or exceeds 40% of the household’s capacity to pay.

Source: China State Council
Private insurance can do more to help households and governments

Private Out-of-Pocket
- Wage growth still recovering from crisis
- Poverty or income inequality persist

Government-funded
- ‘New normal’ growth environment
- Competing uses for public fund

Health Financing Structure in Asia, 2013

Source: WHO, ACR

* Data for private insurance are not available
Huge Potential for Private Insurance

Potential Market for Diabetes Insurance: Selected Asian Economies

Source: ACR estimates
1. Facts about Diabetes
2. Asia Feeling the Heat
3. Case for Private Insurance Solutions
4. Key Takeaways
General Issues for Insurance

Lack of experience data
- Product design
- Product pricing

Lack of sophistication
- Methods of diagnosis or monitoring (e.g. HbA1c)
- Benefits of insured (e.g. fixed benefits)

Market failure
- Asymmetric information and adverse selection
- Lack of randomness and moral hazard
General Issues for Insurance, cont’d

1. Demand aspects
   - Awareness of the impact of diabetes on general health
   - Awareness of the cost

2. Supply aspects
   - Expertise for early detection of diabetic conditions
   - Expertise & infra-structure to manage early-stage diabetes cases

=> We need incentive-based insurance solutions to align interests
Advent of New Technology

• **Improving insurability**
  - Big data and analytical tools
  - Telematics in healthcare to monitor patients’ actions
  - Smartphone apps (e.g. monitor glucose level using phones)

• **Pitfalls of technological application**
  - Risk selection – cherry picking issue
  - Burden on healthcare providers

Solutions built around information and data
Market Developments

• Private plans exist with limited scale

• Scale achieved most quickly with public schemes
  ➢ Few governments have fiscal bandwidth to sustain programs
Involving Private & Public Sectors

Target: Integrated Solution with Governments and Private Sector

**Governments**
- Infrastructure
- Medical expertise
- Education & Training
- Regulations
- Oversight on healthcare institutions and costs

**Private Sector**
- Access to data
- Technological applications
- Talent pool
- Promoting awareness – lifestyle programs
1. Facts about Diabetes
2. Asia Feeling the Heat
3. Case for Commercial Insurance Solutions
4. Key Takeaways
**Diabetes and Implications**

- Financial and economic impact of diabetes is catastrophic not only for individuals, but also the governments and societies at large.
- Public sector cannot solve this issue alone.
- Diabetes 2 can be controlled but requires lifestyle changes.
- Private and public sector together can improve the financial and non-financial health outcomes.
- Data issues need to be addressed to unlock potential solutions which are likely to be information- and data-driven.
Thank You For Your Attention