Biological medicines — the major social and economic challenges

The global spend on pharmaceuticals continues to increase. The use of biological medicines offers new treatment choices to patients, but at a high financial cost. What are the challenges faced by payers and physicians in preserving access to biological medicines within a financially constrained healthcare system?
Population aging is increasing the pressure on health systems

- Between 2015 and 2030, the number of people in the world aged 60 years or over is projected to grow by 56%, from 0.9 billion to 1.4 billion\(^1\)
- By 2050, this population is projected to increase to nearly 2.1 billion; more than double the size it was in 2015\(^1\)

References:

Approximately 80% of adults aged 60 years or over have at least one chronic condition\(^2\)
Health systems must adapt to meet the growing demand for the treatment of chronic conditions

In the US, **chronic conditions** account for:

- **two thirds** of all healthcare costs
- **93%** of Medicare* spending

With the global prevalence of age-related chronic diseases rising, access to cost-effective medical treatment will become increasingly important over the next decades.

Access to cost-effective treatment is paramount for the short, medium, and long-term sustainability of healthcare systems

**Footnotes:**  
*Medicare is a US federal health insurance program for elderly patients.  
Progress in therapeutic options is accompanied by serious budgetary implications

- 225 new products are expected to come to market between 2016 and 2020\(^1\)
- Global spending on medicines is expected to reach 1.4 trillion USD by 2020*\(^2\)

### Global spending and growth (billions), 2010-2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Spending</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$887</td>
<td></td>
</tr>
<tr>
<td>2011–2015</td>
<td>$182</td>
<td>$1,069</td>
</tr>
<tr>
<td>2015</td>
<td>$1,069</td>
<td></td>
</tr>
<tr>
<td>2016–2020</td>
<td>$349</td>
<td>$1,430</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A large proportion of the new therapeutic options under development are biological medicines\(^4\)

**Abbreviations:** CAGR, compound annual growth rate.

**Footnotes:** *Due to exchange rate effects, growth was reduced by 100 billion USD and increased by 268 billion USD in 2011–2015 and 2016–2020, respectively.*

The use of biological medicines continues to grow consistently each year

- Biological medicines are expected to account for 30% of new drug products launched between 2016 and 2020

- Biological medicines can cost up to 100,000 USD per year per patient, negatively impacting on both patient choice and the healthcare system

- By 2020, a number of diseases will have new biological treatment options available across developed markets

- The constrained payer environment is triggering a range of initiatives designed to limit growth in healthcare budgets

Payers seek to provide and preserve access to cutting-edge medicines, but also need to ensure the long-term financial sustainability of their healthcare systems

The long-term potential of biological medicines is hampered by their high cost

Psoriasis

- Psoriasis affects approximately **7.4 million** Americans
  
- Access to biological medicines remains a challenge for many American patients due to factors such as **limited insurance coverage** and **prohibitive costs**
  
- Up to 24% of dermatologists in key EU countries and Canada felt that **cost is a key barrier** to using biological medicines in psoriasis

A number of markets, including Western markets, restrict patient access to biological medicines due to their cost

Access to biological medicines is not uniform across Europe

- Compared with Western Europe, Central and Eastern Europe have experienced reduced access to biological medicines.1,2

**Percentage of patients with rheumatoid arthritis (RA) treated with a biological medicine:**

<table>
<thead>
<tr>
<th>Western Europe*</th>
<th>Central &amp; Eastern Europe**</th>
</tr>
</thead>
<tbody>
<tr>
<td>11–12%</td>
<td>1–5%</td>
</tr>
</tbody>
</table>

This difference in access to biological medicines is largely due to general economic conditions.2

Footnotes: *Based on values from 2009; **Based on values from 2011.

A lack of treatment choice has a detrimental impact on patient care¹

Rheumatoid Arthritis (RA)

- There are around 1.3 million Americans living with RA, many of whom require biological medicines²
- It is estimated that the US market for RA treatment will increase from 6.4 billion USD in 2013 to 9.3 billion USD by 2020³
- On average, patients with RA can expect to pay in excess of 2,700 USD annually in co-payments for biological medicines⁴

“I use Enbrel. I couldn’t walk without it, and when I lost my healthcare insurance it was $1,800 per box. I sold my car to pay for the Enbrel”⁵

Mika Collins, Michigan Patient with RA

The availability of biosimilar medicines enhances competition, improves access to biological medicines, and contributes to the financial sustainability of healthcare systems⁵

Biological medicines — the major social and economic challenges

Population aging and the rising prevalence of chronic conditions is increasing the pressure on health systems\(^1,2\)

Payers seek to provide and preserve access to cutting-edge medicines, but also need to ensure the long-term financial sustainability of their healthcare system\(^3\)

Global spend on pharmaceutical products continues to increase, and is expected to reach 1.4 trillion USD in the near future\(^3\)

Access to biological medicines is not uniform, and is often restricted by their high cost\(^4,5\)

Biological medicines represent an important but expensive proportion of new drugs\(^4\)

The availability of biosimilar medicines enhances competition, improves access to biological medicines, and contributes to the financial sustainability of healthcare systems\(^6\)