

Investing in European health R&D

A pathway to sustained innovation and stronger economies

Executive summary*

A large number of factors point to an unavoidable rise in healthcare expenditure of an estimated 5 percentage points to 12%-15% of Europe's GDP by 2030, even with policy interventions and/or budget caps that aim to counterbalance these pressures. Trends that pushed up healthcare expenditure in the past will become even more intense in the coming decades. (See chapter 1)

- First, there is an expansion of **demand** for healthcare services mainly due to: an ageing and more obese population; better informed patients; and an increase in the societal and individual willingness to pay for healthcare as a result of higher income levels.
- Second, **supply** is accelerating thanks to the biomedical revolution of recent medical advancements, such as personalised medicine, and the convergence of different technologies.
- And third, the **nature of healthcare provision**, and specifically its heavy reliance on trained labour to deliver healthcare services, makes it difficult to achieve significant productivity gains, unlike some sectors such as the computing and automotive industries. Over time, healthcare therefore inevitably claims an increasing share of a country's economy.

This growth in healthcare costs need not be undesirable, as is frequently stated. This is especially so when higher spending on healthcare leads to improved healthcare quality and life expectancy. With this in mind, the challenge is not so much "how do we reverse the growth of healthcare costs?" but more about "how can we best deploy the increasing resources spent on healthcare to create optimal benefits for the European population?"

The challenge is not so much "how do we reverse the growth of healthcare costs?" but more about "how can we best deploy the increasing resources spent on healthcare to create optimal benefits for the European population?"

Health R&D is the key to being able to respond to this dilemma. Increased investment in R&D has a fundamental role to play in economic growth in Europe as there are direct and indirect links between increasing R&D spend on healthcare, improved healthcare services, and the consequent wider benefits to the overall economy. This is even more the case in a context of growing healthcare expenditure. (See chapter 2)

- First, there is the direct impact of innovative technologies on the quality of healthcare provision, leading to **improved health outcomes** and extended years of life.

- Second, shifting healthcare budgets from delivery of care to newer technologies leads to higher **efficiency gains** in the long term, as the price of new technologies tends to decrease over time for both medicines (through the loss of patent exclusivity) and medical devices (due to decreasing prices, e.g. for bare metal stents). This creates further budgetary room for better care and newer and better technologies – which, in turn, have their own positive impact on population health gains.
- Third, improved health leads to **better productivity** among the working population and may even increase the maximum working age from its current level.
- And fourth, R&D investments, if appropriately rewarded, have the potential to provide **high economic yields** both in terms of return on investment and also by creating a knowledge economy and deploying a highly educated workforce with technical skills. This has a widespread positive impact on society and not only on a section of society (i.e. the patients).

These last two points lead to improved levels of GDP, benefiting the whole population, and, with GDP being a main driver for the willingness to pay for health, this also benefits patients.

However, the outlook for Europe is not as positive as it could be. Over recent years there has been a stagnation in European private and public investment in R&D, while at the same time most cost components driving the total expenditure on health R&D have steadily increased in price. (See chapter 3)

- **Private biopharmaceutical investments in health R&D**, which are double the size of total public health R&D, have been slowing down since the start of the economic crisis in 2007/8. Biopharmaceutical companies have faced increased difficulties in marketing innovative products in the European markets, as well as reduced financial returns as a result of increasingly limiting reward mechanisms for innovative technologies. At the same time, the price of most cost components driving total expenditure on health R&D have increased significantly over the last decade. The combination of this pressure on both revenues and costs has had a negative effect on the private resources made available to R&D. Uncertainty around future market conditions is casting a shadow over opportunities to reverse recent developments, and is likely to have a negative influence on current private investment decisions. Publicly-funded R&D is unlikely to make up for this situation.
- **Public R&D investments** in Europe are only one-third the level of public investments made by the US. At country level, they declined or stagnated in most European countries, fell for the first time in total absolute numbers in 2011 and will be further under pressure in the near future due to public budget deficits. Investments at the European Union level account for only 2% of total public and private R&D and the current Horizon 2020 budget could lead to a stagnation in EU level funding for seven years.

These developments will have a negative impact on future health gains as well as future efficiency, productivity and economic benefits.

The potential of R&D investment to increase the health of European populations and positively impact on Europe's economies makes it crucial that governments adopt policies that will encourage the growth and success of health R&D. First, these policies should adequately reward new technologies. Second, the future willingness to pay for innovation should be reflected in transparent and predictable policy decisions now, in order to promote future positive decisions on private long-term investment. And third, governments should prioritise their direct investment in public health R&D and create explicit incentives for private health R&D. **(See chapter 4).**

The following chapters outline the arguments and underlying facts in support of increased investment in health R&D in Europe. The paper first looks at current and future trends in healthcare expenditure (chapter 1). It then substantiates the argument that increased R&D will have a positive impact on the health of populations and European economies (chapter 2). Further analysis investigates the recent trends in R&D investment in healthcare innovation in Europe (chapter 3). Finally, it looks at the policy options available to European and national institutions and governments to promote health-related R&D (chapter 4).

***Acknowledgement**

This document is the executive summary of *'Investing in European health R&D - A pathway to sustained innovation and stronger economies'*, a publication based on research delivered by the Deloitte Health Economics group and commissioned by Janssen Pharmaceutica N.V in 2013.