

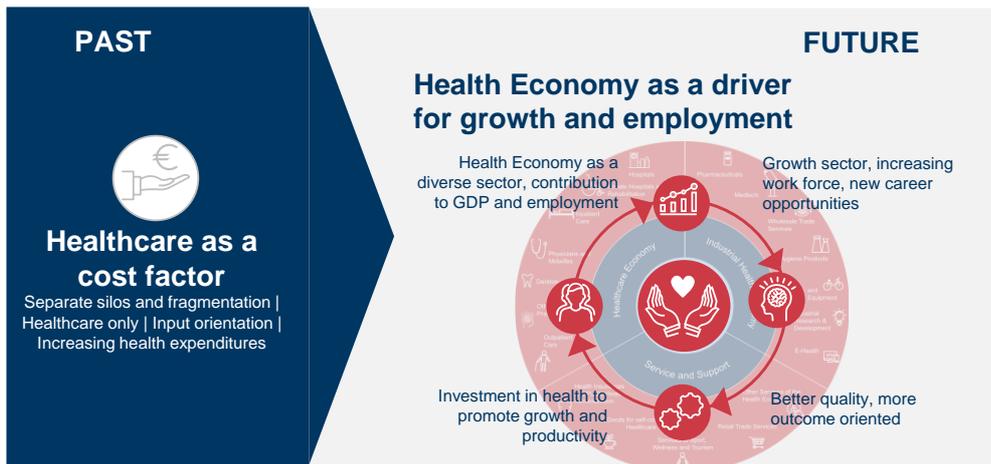
MANAGEMENT SUMMARY JUNE 2020

The Economic Footprint of the Health Economy in Mexico

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Challenging the past understanding of healthcare

Health expenditures have a substantial impact on the economy. New data, calculated by WifOR, is challenging the past understanding of healthcare as an economic burden, and fostering the paradigm shift towards a global Health Economy. WifOR's calculations show that the global Health Economy accounted for 7.6 percent of the global gross value added (GVA) and secured 5.8 percent of global employment in 2014. For 2020, WifOR estimates the contribution of the Health Economy to global GVA to be 9.3 percent.



Investments in health lead to economic growth, wealth and employment

Health expenditures create economic growth, wealth, and well-being along the value chain of care: from the inpatient and outpatient sector (e. g. hospitals, practitioners, care) to the Industrial Health Economy (e. g. pharma, biotech, medtech, R&D, e-health). By measuring the contributions along the entire value chain, Health Economy Reporting (HER) can offer robust conclusions and actionable recommendations to key decision makers. It also makes comparisons with other important sectors of the economy possible while enabling the impact assessment of future health policy decisions.

„Health investment is the smartest investment – it pays off.“

Dr. Zsuzanna Jakob, WHO Regional Director for Europe

WifOR's research is aligned with initiatives of the World Health Organisation (WHO). The WHO also stresses the fact that health systems are essential in determining the economic performance and stability of a country. Further, health systems have a positive impact on the economic performance of other sectors of the economy. Beyond that is their crucial role as a key sector for driving forward the implementation of local and national goals for sustainable development, by enhancing its employment, training, and purchasing functions both locally and nationally.¹

¹ World Health Organization, "Economic and Social Impacts and Benefits of Health Systems" (Copenhagen, 2019).

Increasing health investments are necessary to achieve the Sustainable Development Goals (SDGs)

SDG 3 aims to “ensure healthy lives and promote well-being for all at all ages”. According to the Lancet, additional health investments of USD 371 billion are needed per year in lower- and middle-income countries by 2030 to reach health system targets.² The authors estimate a financing gap of USD 20-54 billion per year. If funds should be made available, those investments would save 97 million lives and increase life expectancy drastically.

Health investments in Mexico are far below the global average

With a 5.5 percent share in the gross domestic product (GDP), health expenditures in Mexico are significantly below the global average. Against the background of the multidimensional benefits of health investments put forward by research done by the WHO and WifOR there is a need for action in Mexico.

	 Mexico	 Colombia	 Argentina	 Brazil	 Turkey	 Global ¹	 Germany ²
Share of health expenditures in GDP in 2017	5.5 %	7.2 %	9.1 %	9.5 %	4.2 %	9.9 %	11.2 %
Share of Health Economy in GDP in 2017	5.3 %	6.8 %	8.8 %	7.2 %	4.1 %	8.0 %	12.0 %
Labor force share in overall economy in 2017	5.6 %	7.4 %	8.6 %	7.4 %	5.7 %	6.2 %	17.0 %

Gross value added and employment as key economic indicators of the Health Economy

Gross value added (GVA) measures the contribution of sectors to the economic performance of a country. The sum of GVA over all sectors plus the net tax on goods is commonly known as the gross domestic product (GDP). As a key economic indicator within countries’ national accounts, GVA makes comparisons between local units (e. g. countries, regions, districts) and sectors possible. The second indicator, employment, comprises all persons of working age that are either in paid employment or are self-employed.

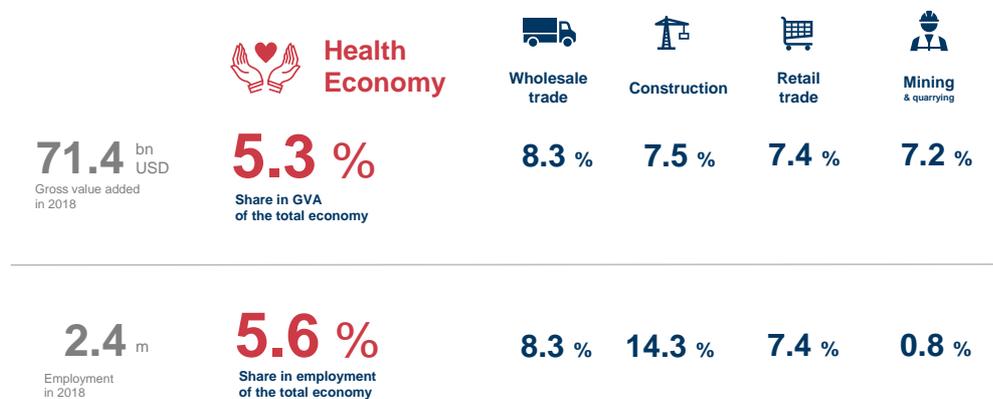
By means of those two indicators, HER quantifies the contribution of the Health Economy to the total Mexican economy. The main data source of the

² Karin Stenberg et al., “Financing Transformative Health Systems towards Achievement of the Health Sustainable Development Goals: A Model for Projected Resource Needs in 67 Low-Income and Middle-Income Countries,” *The Lancet Global Health*, 2017.

Mexican HER is the World Input-Output Database³ (WIOD) that offers information on GVA and employment for 56 Mexican sectors. Further, the WIOD contains information about the interdependencies of those sectors, so that indirect and induced effects can be calculated. The Health Economy is extracted from various sectors (e. g. human health and social work activities, manufacture of pharmaceutical products, wholesale and retail trade, scientific R&D) and, therefore, is called a cross-sectional sector.

The Health Economy is a stabilizer for the Mexican economy

A direct GVA of USD 71.4 billion meant a 5.3 percent share of the Health Economy in Mexico's economic performance in 2018. With an employment of 2.4 million, the share of the Health Economy was 5.6 percent in total employment in Mexico. The sector is, therefore, one of the most important for growth and employment in Mexico.



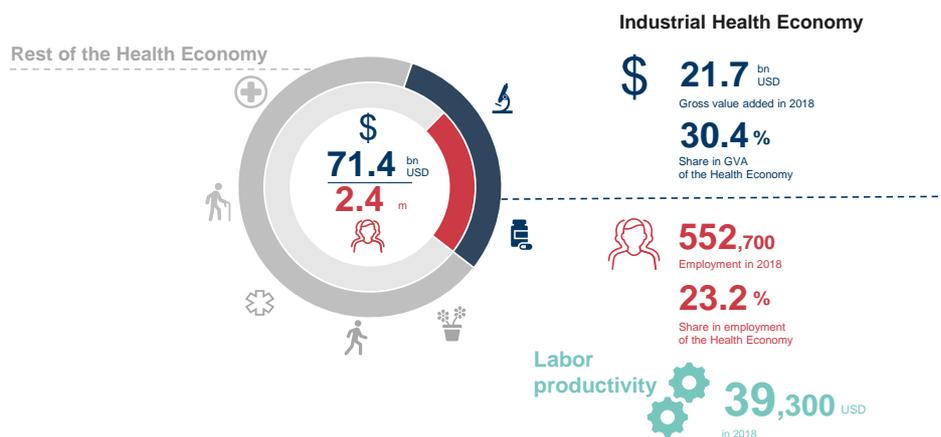
Even more strikingly, the average annual growth rate of the sector's GVA during the last decade was 2.6 percent and, therefore, higher than GVA growth of the total economy in Mexico (2.3 percent). During the same period, employment of the Health Economy has increased by 1.3 percent every year. Again, this number is higher than employment growth of the total Mexican economy (1.1 percent).

Beyond direct effects, the Health Economy generates spillover effects within the Mexican economy. Due to intermediate products and the partial spending of income generated in the Health Economy and its suppliers, the sector generates indirect and induced effects. The sum of direct, indirect, and induced effects, the economic footprint of the sector, amounted to USD 128.9 billion and an employment of over 3.8 million. Said differently, every USD of GVA generated by the Health Economy generates another USD 0.8 within the Mexican economy. Five jobs in the Health Economy secure three additional jobs within the Mexican economy.

³ Marcel P. Timmer u. a., "An Illustrated User Guide to the World-Input-Output Database: the Case of Global Automotive Production", *Review of International Economics*, 2015.

The Industrial Health Economy is the productive pillar of the sector

Almost one third of the sector's value added is generated by the Industrial Health Economy. The sub-sector generated USD 21.7 billion and supported almost 553,000 jobs (23.2 percent in employment of the Health Economy). The labor productivity of the sub-sector was USD 39,300 and was, therefore, higher than the labor productivity of the Health Economy (USD 30,000).



The sub-sector's growth during the last decade remains behind the growth rate of the Health Economy as a whole. Since 2008, the sub-sector's GVA has grown 1.4 percent every year while its growth in employment was 0.9 percent. However, the Industrial Health Economy has shown a steady growth both in terms of GVA and employment after the global financial and economic crisis in 2009.

The Industrial Health Economy itself is a heterogeneous sub-sector. It comprises the manufacture of pharmaceutical products and medical technology as well as service-oriented goods like R&D and wholesale trade.

Novartis contributes USD 199 million to the GVA of the Mexican Health Economy

In 2019, the contribution of Novartis' operations and R&D activities in Mexico was a GVA of USD 199 million and an employment of 1,325.⁴ With USD 150,000, Novartis' labor productivity was much higher than the sector's labor productivity in Mexico.

In addition, Novartis Mexico shows high global interdependencies. The company's global spillover effects amounted to a GVA of USD 247 million and an employment of 10,078. Hence, its global economic footprint was a GVA of USD 446 million and an employment of 11,403. Every USD of GVA by Novartis Mexico generates USD 1.2 globally. Every job secures 7.6 additional jobs.

⁴ FES impact valuation figures are reported for the year 2019. Due to data availability, HER figures are reported until the year 2018.

By incorporating HER into its materiality assessment, Novartis creates better understanding of the societal and economic value of corporate activity. HER adds to Novartis' existing FES impact valuation that combines financial, environmental, and societal indicators measuring Novartis' impact in Mexico.

Health investments in Mexico are crucial to set up a defence plan against future pandemics

In the light of the COVID-19 pandemic, it has become obvious that substantial health investments in Mexico are crucial not only to stabilize the economy but also to set up a defence plan against future pandemics.

During the COVID-19 pandemic, policymakers in Mexico need to address urgent measures that are primarily ensuring access of the vulnerable to diagnostics and treatment and improving R&D for accelerated development of diagnostics, treatments, and vaccines.

However, it is equally important to increase investments in health after the pandemic. Instead of budgeting health expenditures on an annual basis, policymakers in Mexico should consider those expenditures as an investment with its return being a resilient Mexican health system that features a pandemic preparedness.

HER should be set up as an evidence-based monitoring tool to support political decision making in Mexico

Besides strengthening all sub-sectors of the Health Economy, a continuous reporting of the sector by the Mexican ministries together with the national statistical institute would provide an evidence-based monitoring tool to support decision making of economic and health policymakers. The present report is a starting point for a new, objective dialogue between politicians, statistical institutes, associations, and companies.

WifOR Institute is an independent economic research institute that originated from a spin-out of the Department of Public Economics and Economic Policy at the Technical University of Darmstadt, Germany. WifOR's fields of research include Economic, Environmental and Social Impact Analyses as well as Labour Market and Health Economy research.

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