

11.6 Cost effectiveness

In economic terms, effectiveness measures the degree to which an activity accomplishes its objectives. Cost effectiveness, which is the ratio of resources invested (input) to results attained (outcomes), plays a crucial role in assessing the effectiveness of government policies. The education and healthcare sectors have sufficiently well-developed and internationally standardised measures of inputs and outcomes to allow their cost effectiveness to be meaningfully compared.

Health

Health expenditure makes up a substantial portion of total public expenditure. One way to capture health cost effectiveness in broad terms is by comparing countries' improvements in life expectancy at birth (outcome) to their total health expenditure per capita (input). Current health expenditure comprises both public and private spending. This is important to note since private spending in Latin America and the Caribbean (LAC) makes up a substantially larger share of healthcare expenditure than in the OECD. In the LAC region, 32.4% of health spending was paid out-of-pocket in 2019, compared with 20% on average across OECD countries (OECD/The World Bank, 2023). Life expectancy serves as an aggregated outcome of the effectiveness of health systems, with the caveat that life expectancy is also affected by factors beyond healthcare activities and spending levels, such as life habits and the physical environment. In the LAC region, health expenditure strongly correlates with life expectancy at birth, with a correlation of 0.66. Average life expectancy in LAC countries is 73.2 years, compared to 80.1 years on average among OECD countries. However, OECD countries also spend over six times more per capita on healthcare, on average, than LAC countries.

The countries above the fitted line in Figure 11.13, such as Antigua and Barbuda, Chile, and Costa Rica, have high life expectancies relative to their health expenditure, which could indicate high health cost effectiveness. Barbados, Panama and Uruguay, and are some of the top spenders in the region, with life expectancies that align with these expenditures. In contrast, although the Bahamas has the highest spending on healthcare in the LAC region, it has relatively low life expectancy (72.6 years), which may be due to sharp increases in its healthcare expenditures in response to the COVID-19 pandemic (OECD/The World Bank, 2023).

Education

The cost effectiveness of education systems can be measured by comparing students' learning outcomes – based on scores in the OECD Programme for International Student Assessment (PISA) – and cumulative expenditure on education per student. However, PISA scores are also influenced by other structural factors, such as the amount of time students spend learning outside regular

lessons, as well as the family and social environment. The COVID-19 pandemic had an impact on the global education system, although results in reading and mathematics were already declining prior to the pandemic (OECD, 2023).

In 2020, LAC countries spent a cumulative total of USD 1 397 PPP per student on average in the course of their primary and secondary education. Average PISA scores for LAC students are slightly higher for reading (406) than for mathematics (381), with a positive correlation between cumulative expenditure per student and PISA results. This relationship is particularly strong for reading results, with a correlation of 0.64, and slightly less so for mathematics (0.59). Chile has the highest PISA scores (412 for mathematics and 448 for reading) and the highest expenditure per student (USD 2 763 PPP). Uruguay spends considerably less (USD 2 152), albeit above the LAC average, and achieves comparatively good results in mathematics (409). Mexico (USD 1 222 PPP) and Peru (USD 918 PPP) spend less than the LAC average per student but achieve slightly above-average PISA results, indicating high-cost effectiveness. (Figure 11.14 and Figure 11.15).

Methodology and definitions

Health spending measures the final consumption of healthcare goods and services (i.e. current health expenditure) including personal and collective healthcare but excluding spending on investments. Life expectancy measures how long, on average, a newborn can expect to live, if current death rates do not change.

Every three years, PISA evaluates the performance of 15-year-old students in reading, mathematics and science. Reading performance measures the capacity of these students to understand, use and reflect on written texts. Mathematical performance measures their mathematical literacy. Cumulative expenditure per student is calculated as the combined cumulative expenditure for primary and secondary education, divided by the number of enrolled students in those age groups.

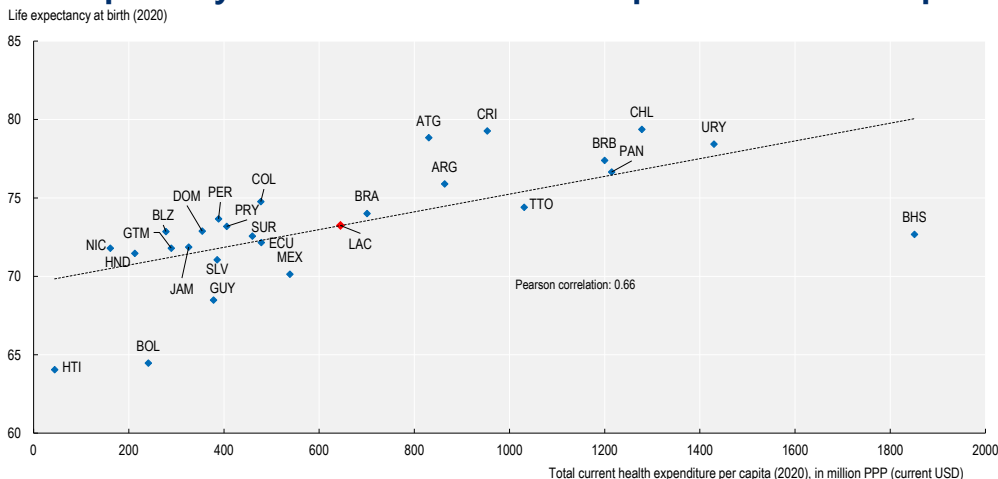
Further reading

OECD (2023), *PISA 2022 Results (Volume I): The State of Learning and Equity in Education*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/53f23881-en>.

OECD/The World Bank (2023), *Health at a Glance: Latin America and the Caribbean 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/532b0e2d-en>.

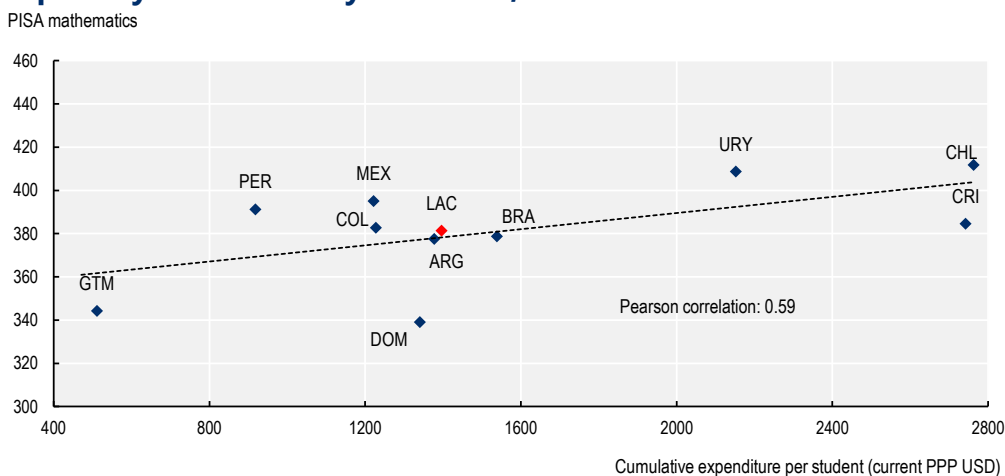
OECD (2021), *Health at a Glance 2021: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/ae3016b9-en>.

Figure 11.13. Life expectancy at birth and total current expenditure on health per capita, 2020



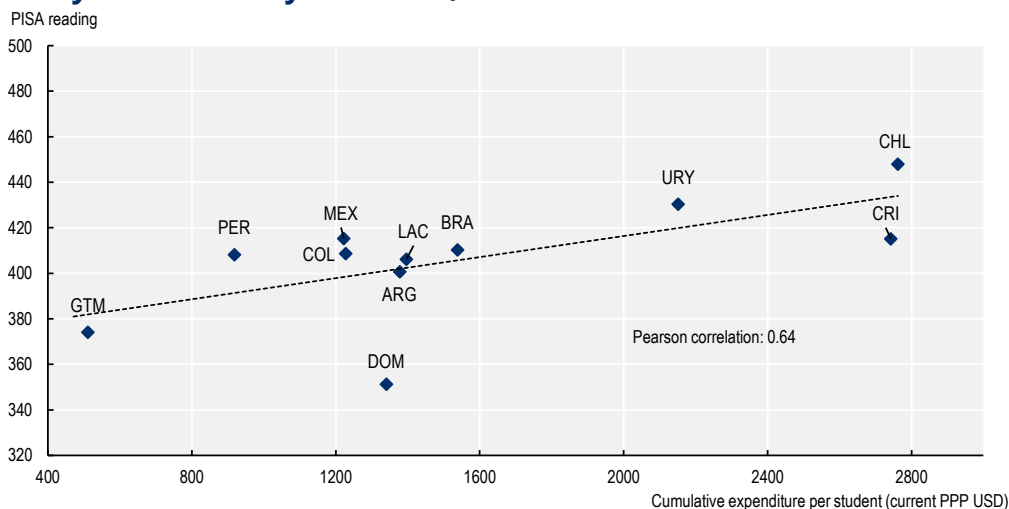
Source: World Health Organization Global Health Expenditure (database) and United Nations World Population Prospects (database).
 StatLink <https://stat.link/iu8p52>

Figure 11.14. Performance in PISA (mathematics) 2022 at age 15 and cumulative expenditure per student in primary and secondary education, 2020



Source: OECD Education at a Glance (database) and UNESCO Institute for Statistics (UIS) (database).
 StatLink <https://stat.link/95lj1s>

Figure 11.15. Performance in PISA (reading) 2022 at age 15 and cumulative expenditure per student in primary and secondary education, 2020



Source: OECD Education at a Glance (database) and UNESCO Institute for Statistics (UIS) (database).
 StatLink <https://stat.link/yfdh9v>



From:
Government at a Glance: Latin America and the Caribbean 2024

Access the complete publication at:

<https://doi.org/10.1787/4abdba16-en>

Please cite this chapter as:

OECD (2024), "Cost effectiveness", in *Government at a Glance: Latin America and the Caribbean 2024*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/7bf3b08d-en>

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.