

The Sustainable Development Goal 5 calls for safe, effective, and appropriate medical technologies, which over the past century has profoundly influenced service delivery and health outcomes, and have been a dominant factor in the growth of health care expenditure (Lorenzoni et al., 2019[9]). Computed tomography (CT) scanners and magnetic resonance imaging (MRI) units help doctors diagnose a range of conditions by producing images of internal organs and structures of the body. MRI exams do not expose patients to ionizing radiation, unlike conventional radiography and CT scanning. Mammography is used to diagnose breast cancer, and radiation therapy units are used for cancer treatment and palliative care. This equipment is fundamental for an adequate response to diseases, but a balance must be stricken to ensure financial sustainability, as they are expensive technologies.

There are substantial differences in availability of technologies across LAC countries. Usually, the higher the country income level the higher the availability of medical equipment, but this does not seem to be the general pattern in the region. Other factors such as health spending and health care planning influence investment and availability.

Chile has the highest number of CT scanners with 24 per million population followed by Antigua and Barbuda with 22 (the latter is explained partially by the country's small population). However, they remain below the OECD average of 27. On the other hand, Saint Vincent and the Grenadines has less than one CT scanner per million people, the same as Haiti and Nicaragua (Figure 5.7).

For MRI units, Chile has the largest number with 12 units per million population, followed Antigua and Barbuda and Saint Lucia reporting 10 or more units per million population. Several countries such as Barbados, Dominica, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Ecuador, Nicaragua, Colombia, Paraguay and Cuba report less than one unit per million population (Figure 5.8).

Panama reports the highest number of mammographs with more than 278 units per million females aged 50-69, as opposed to Paraguay, Colombia, Cuba and Haiti with less than 20 mammographs available per million females aged 50-69 (Figure 5.9).

In the LAC region, no countries get close to the density of radiotherapy units reported in OECD countries of seven units

per million population. Uruguay, Suriname and Barbados are the only three countries reporting over three units per million population, while seven countries report having none (Figure 5.11).

In general terms, LAC countries still have space to put more investment into medical technologies to improve equitable access for the population. At the same time, such expansion in access can be accompanied by the development of regulatory frameworks in the areas of registration, assessment and purchasing rules as well as in clearly orienting the clinical use of medical technologies based on the best available scientific evidence. For instance, some OECD countries promote rational use of diagnostic technologies by implementing clinical practice guidelines to reduce the use of unnecessary diagnostic tests and procedures. The guidelines include, for example, avoiding imaging studies such as MRI, CT or X-rays for acute low back pain without specific indications (OECD, 2017[10]).

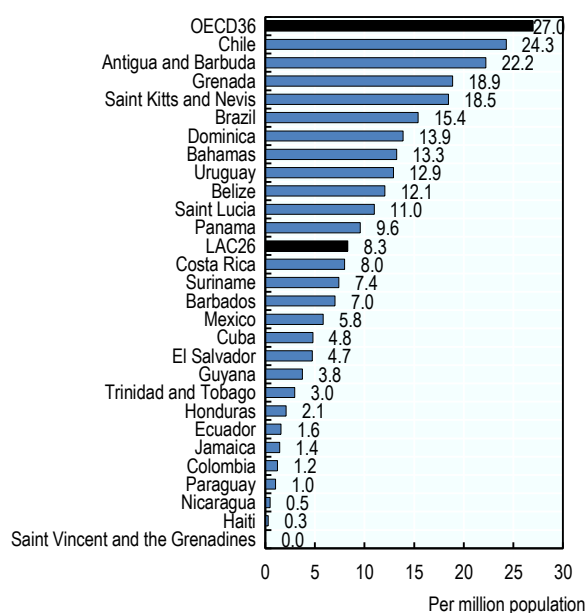
### Definition and comparability

The data cover equipment installed both in hospitals and the ambulatory sector and public and private sectors in most countries. However, there is only partial coverage for some countries. Data for Antigua and Barbuda refers only to equipment in the private sector. Data for Paraguay, Ecuador and Trinidad and Tobago refers to equipment in the public sector.

### References

- [9] Lorenzoni, L. et al. (2019), "Health Spending Projections to 2030: New results based on a revised OECD methodology", *OECD Health Working Papers*, No. 110, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5667f23d-en>.
- [10] OECD (2017), *New Health Technologies: Managing Access, Value and Sustainability*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264266438-en>.

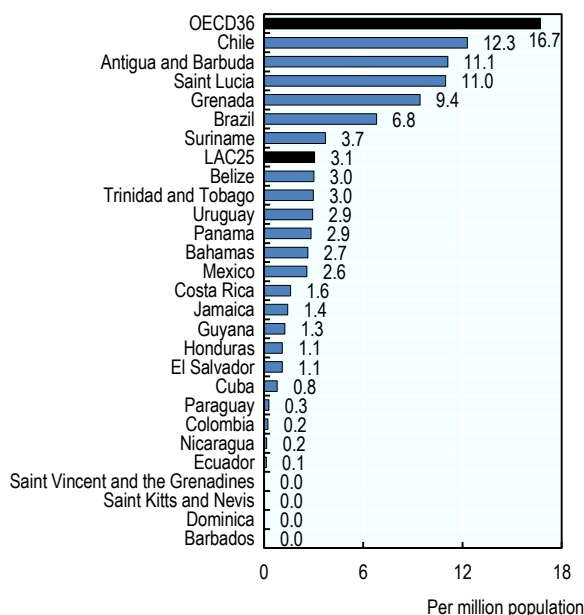
Figure 5.7. Computed tomography scanners per million inhabitants, latest year available



Source: WHO GHO 2016; OECD Health Statistics 2019 for Chile, Colombia, Costa Rica and Mexico.

StatLink <https://stat.link/z5bx2q>

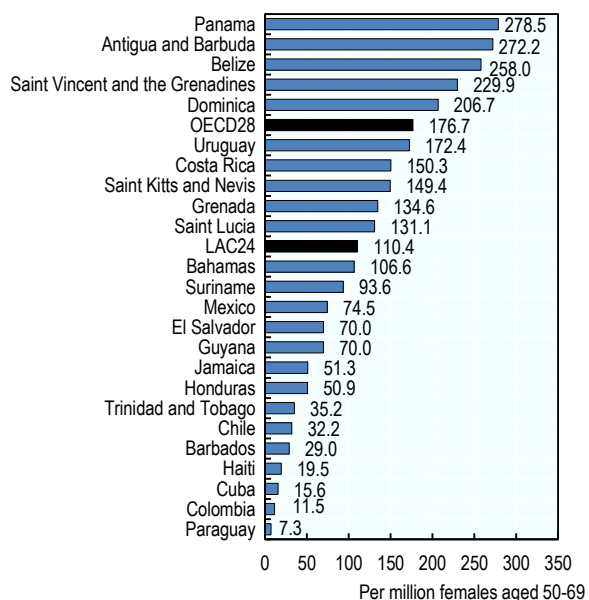
Figure 5.8. MRI units per million inhabitants, latest year available



Source: WHO GHO 2016; OECD Health Statistics 2019 for Chile, Colombia, Costa Rica and Mexico.

StatLink <https://stat.link/ny7gsp>

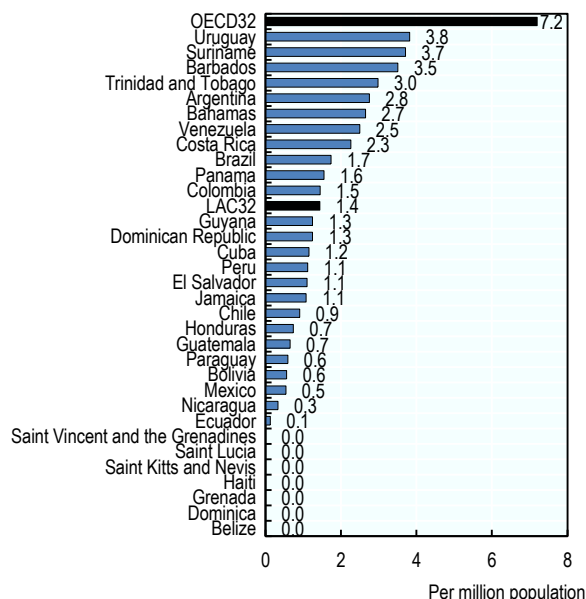
Figure 5.9. Mammography units per million females aged 50-69, latest year available



Source: WHO GHO 2016; OECD Health Statistics 2019 for Chile, Colombia, Costa Rica and Mexico.

StatLink <https://stat.link/kcxtf8>

Figure 5.10. Radiotherapy units, latest year available



Source: WHO GHO 2016; OECD Health Statistics 2019 for Chile, Colombia, Costa Rica and Mexico.

StatLink <https://stat.link/eoub7>



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