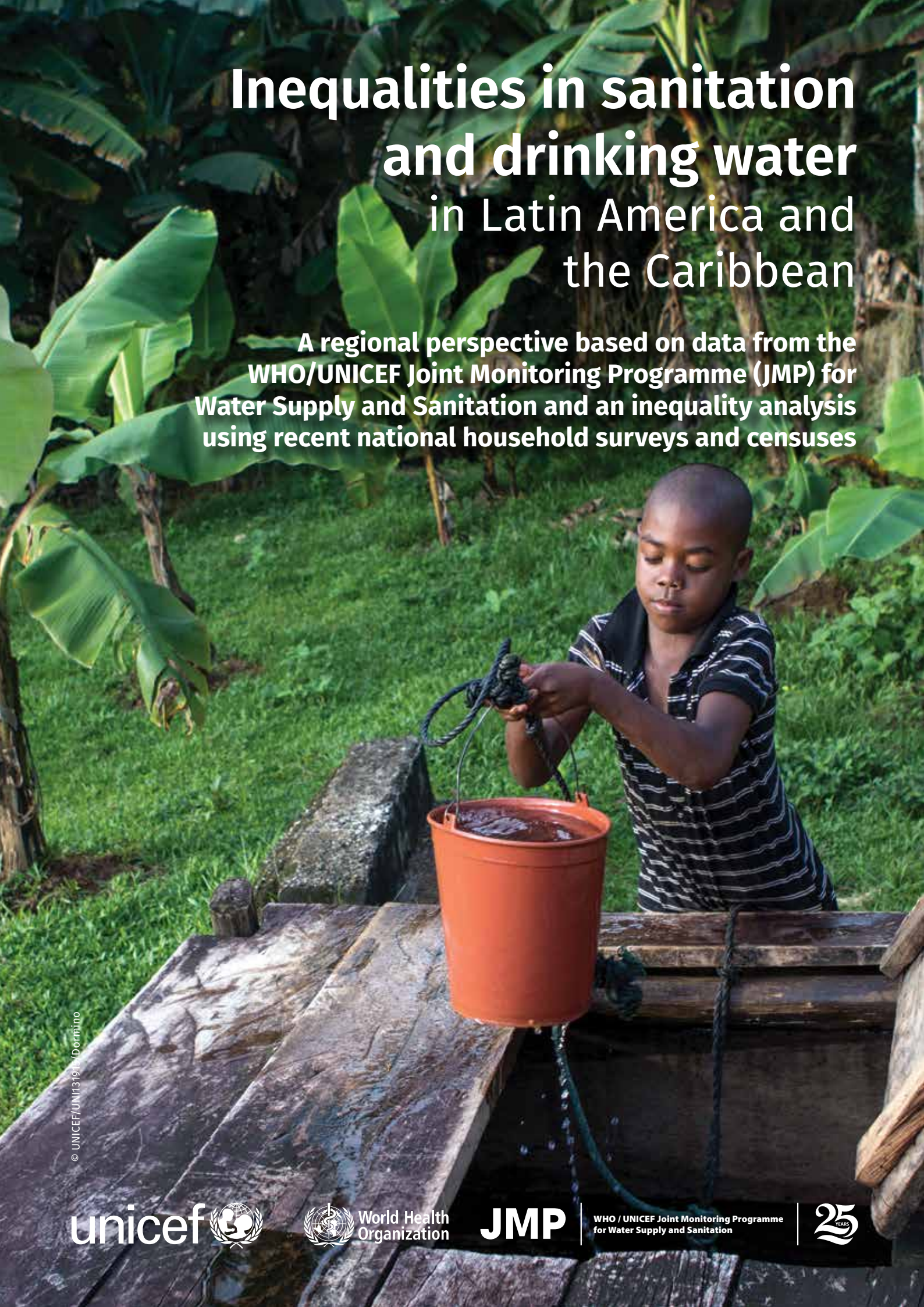
Inequalities in sanitation and drinking water in Latin America and the Caribbean

A regional perspective based on data from the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation and an inequality analysis using recent national household surveys and censuses



unicef
World Health Organization
JMP
WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation
25 YEARS

In Latin America and the Caribbean

83%

of the population used an improved sanitation facility in 2015

Yet **18 million** still practised open defecation

In Latin America and the Caribbean

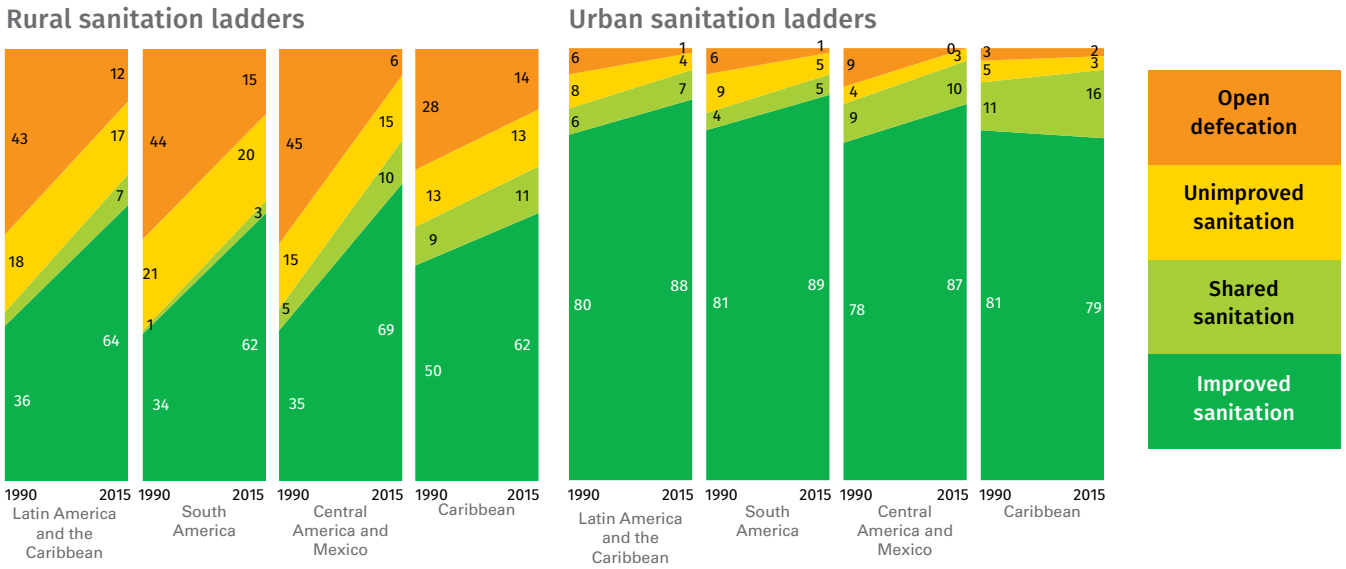
95%

of the population used an improved drinking water source in 2015

Yet **34 million** still used unimproved drinking water sources

Sanitation and drinking water ladders

Sanitation and water ladders provide a way to show inequalities in the level of service used by households and trends in coverage across these service levels over time. For sanitation this ranges from the practice of open defecation and unimproved sanitation to the use of an improved sanitation facility. For drinking water, there are also four levels with the highest level of service being piped water on premises. Definitions and data sources are provided at the end of this snapshot.

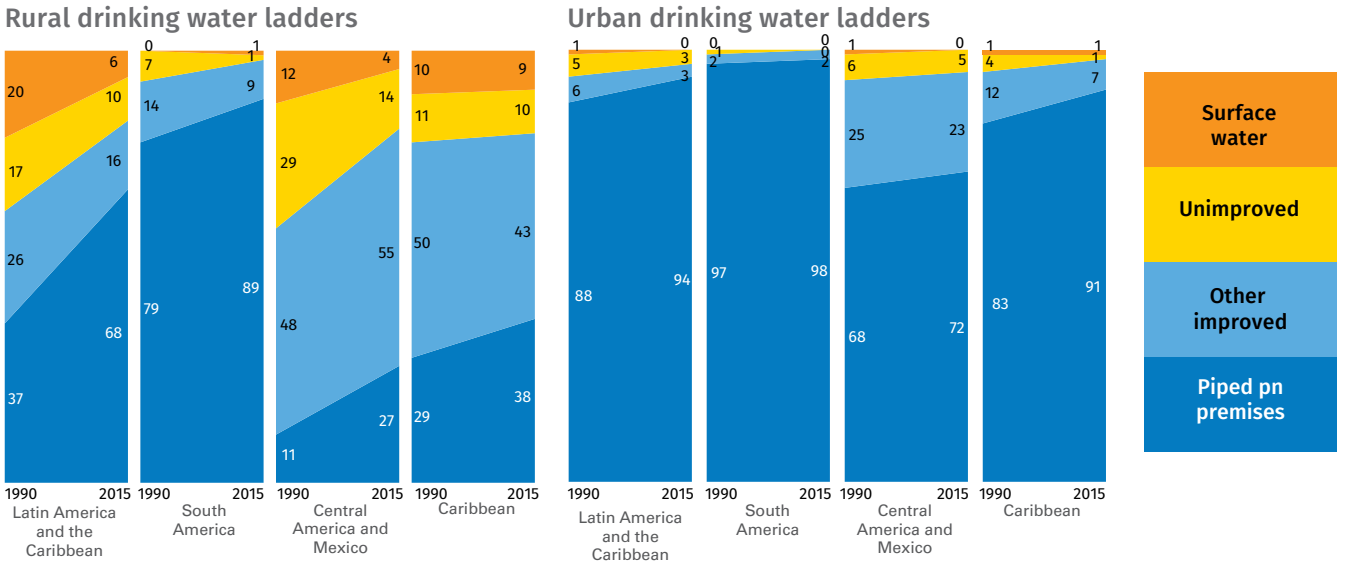


Trends in rural and urban sanitation in Latin America and the Caribbean, 1990-2015

Overall in Latin America and the Caribbean, rural improved sanitation coverage increased from 36% to 64% between 1990 and 2015. The biggest increases were in South America and Central America and Mexico. Comparatively few households share sanitation facilities in South America but sharing of an improved facility is more widespread in the Caribbean and Central America and Mexico, where it is practised by at least 10% of the population.

Urban improved sanitation coverage is higher than in rural areas in all three sub-regions and was close to 90% in South America (89%) and Central America and Mexico (87%). Urban sanitation was somewhat lower in the Caribbean and declined slightly between 1990 and 2015.

Whereas one in four in rural areas practised open defecation in 1990, this had dropped to just over one in ten by 2015. Open defecation is most common in rural areas of South America and rural Caribbean.



Trends in rural and urban drinking water in Latin America and the Caribbean, 1990-2015

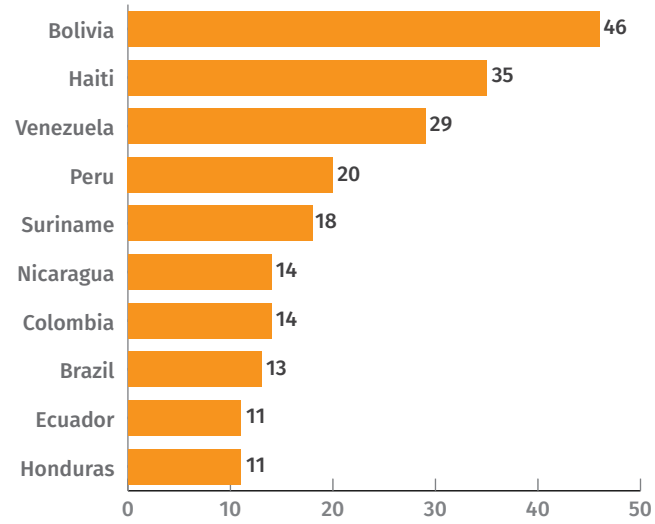
In rural Latin America and the Caribbean large increases in improved drinking water coverage have been made since 1990, driven by an expansion of piped water on premises. Whereas coverage of piped water on premises is high in South America (89%), it is considerably lower in rural Central America and Mexico (27%) and rural Caribbean (38%). The use of unimproved drinking water sources is uncommon in South America but approximately one in five still rely on these sources in Central America and Mexico and the Caribbean.

Coverage of piped water is much higher in urban areas of LAC, with piped water on premises serving over 9 out of 10 urban dwellers in South America and the Caribbean. The use of unimproved drinking water sources in urban areas is uncommon in all three sub-regions but highest in Central America and Mexico (5%).

Population with no water and sanitation service

In Latin America and the Caribbean, many people still do not have any water and sanitation services, relying on the practice of open defecation or using surface waters for drinking. The charts below show how the lack of services is distributed amongst countries in Latin America and the Caribbean.

Open defecation is practised by at least one in ten living in rural areas in ten countries in 2015

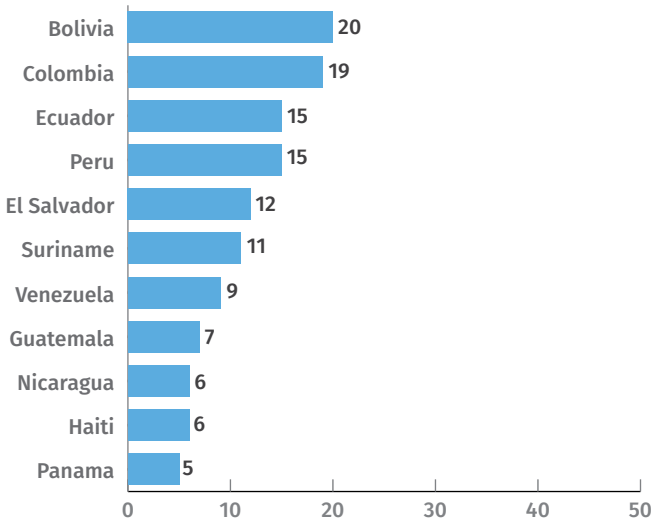


Proportion of rural population practising open defecation (%), 2015

In 2015, 18 million people practised open defecation in Latin America and the Caribbean

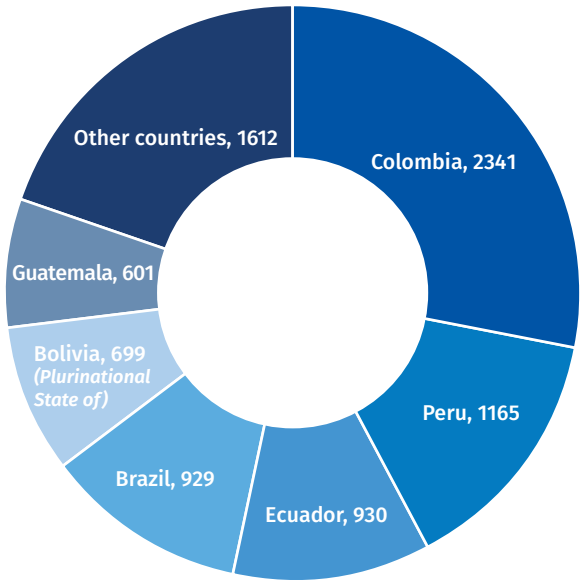
Number of people practising open defecation in Latin America and the Caribbean in 2015 (thousands)

At least 5% of the rural population used surface water in 11 countries in 2015



Proportion of rural population using surface water (%), 2015

In 2015, 8.5 million people used surface water for drinking in Latin America and the Caribbean



Use of surface water in Latin America and the Caribbean in 2015

Key facts

- In Latin America and the Caribbean in 2015, 18 million people still practised open defecation and 8.5 million people relied on surface water for drinking.
- In seven countries over 1 million people practiced open defecation in 2015, with the largest numbers in Brazil, Colombia and Haiti.
- In six countries over half a million people used surface waters for drinking in 2015, with the largest numbers in Colombia, Peru and Ecuador.
- Open defecation was practised by almost half of the rural population in Bolivia in 2015 and one in five used surface waters for drinking.

Inequalities by wealth

Large gaps in access to improved sanitation and drinking water exist between rich and poor.

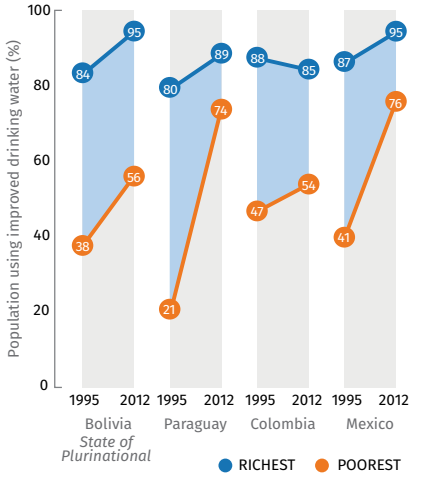
The chart below, called an "equity tree" shows just how much difference there is between the poorest in rural areas and the richest in urban areas of Colombia.

Below, sanitation and drinking water coverage is shown by wealth quintile for urban sanitation and rural drinking water. These show that there are large difference in almost all countries with available data.

Improved sanitation coverage was only 37% amongst the poorest in rural areas of Colombia in 2012.

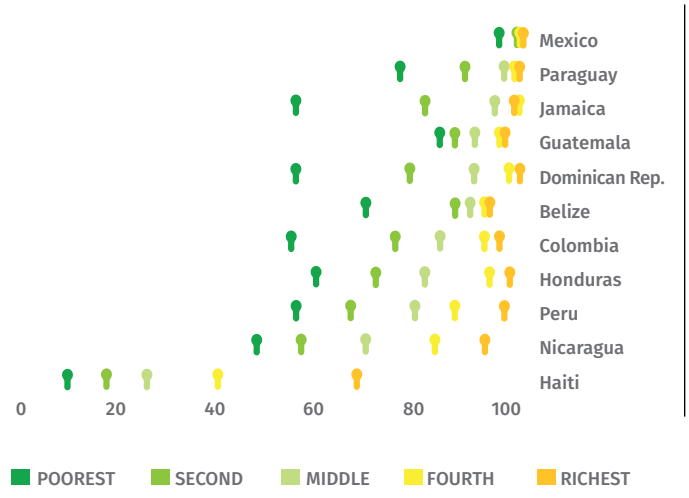
Improved sanitation by country, location and wealth quintile (%)

The gap between the poorest and richest in rural areas appears to be closing in several countries in LAC

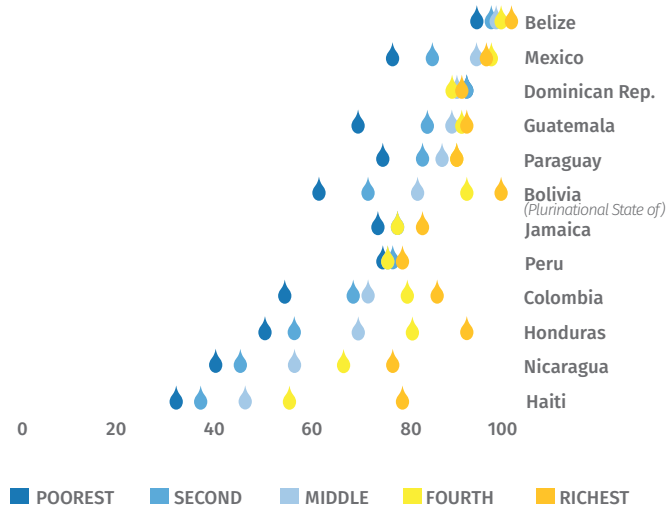


Trends in use of improved drinking water in the richest and poorest rural wealth quintiles, 1995–2012

Sanitation and drinking water coverage is considerably lower for the poorest in many countries in Latin America and the Caribbean



Use of improved sanitation by urban wealth quintile (%)



Use of improved drinking water by rural wealth quintile (%)

Key facts

- There are large gaps in access to improved sanitation and drinking water between rich and poor households in Latin America and the Caribbean.
- Use of improved drinking water amongst the poorest in rural areas is catching up with the richest
- Weath quintile trends are available for only 12 countries in the region. Information on access among the poorest is essential for monitoring progressive realisation of the human rights to water and sanitation and achieving equitable access.

Other inequalities

Insights from national censuses and national household surveys

There is a wealth of nationally representative information on water and sanitation services collected by national statistical agencies in Latin America and the Caribbean. In this snapshot we illustrate the potential to use this information to gain a better understanding of sub-national inequalities in access to these services. Data are drawn from publicly available censuses and household surveys conducted since 2010.

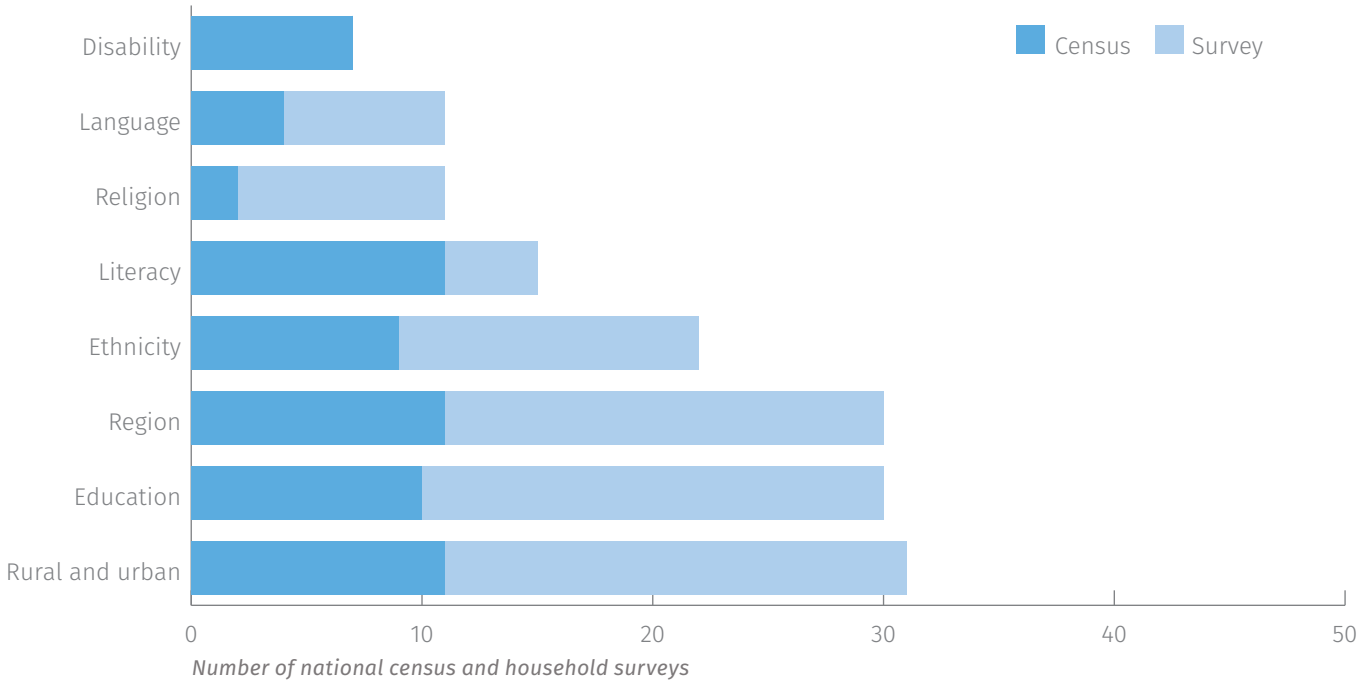
A total of 31 data sources were found, 11 censuses and 20 household surveys. Where possible information on the following stratifiers was extracted:

- Region
- Literacy
- Education
- Ethnicity
- Language
- Disability
- Religion

All national censuses and national household surveys that collect information on water and sanitation can be used to investigate disparities in access. Disaggregation is, however, only possible when censuses and surveys have collected relevant information about the household and its members. In all cases sub-national administrative regions were available and in the majority it was possible to determine the educational level (>95%) and ethnicity (71%) of at least one household member. Information on religion and language were less common and disability was exclusively included in censuses. For religion, this may reflect a lower political priority relative to other stratifiers in some countries. Language was included in comparatively few cases but may be a particularly useful measure of to assess coverage amongst indigenous population.

In this snapshot each equity stratifier is treated independently. More detailed analysis for individual countries is possible and could examine the extent to which inequalities are overlapping or mutually reinforcing. Equally importantly we have focused on equity stratifiers that are considered important at a regional level but participatory approaches could be used to identify country-specific disadvantaged groups for more in-depth analysis of inequalities.

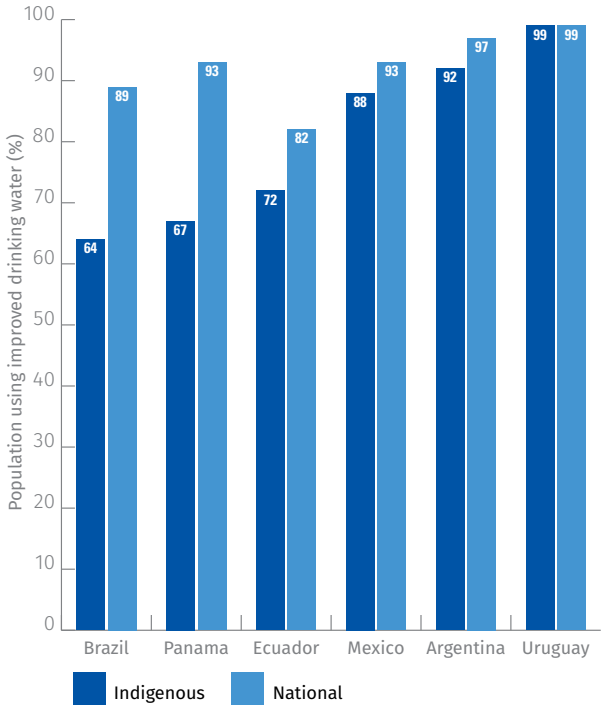
Whilst most censuses and surveys collect information on education and ethnicity fewer ask about literacy, religion, language and disability

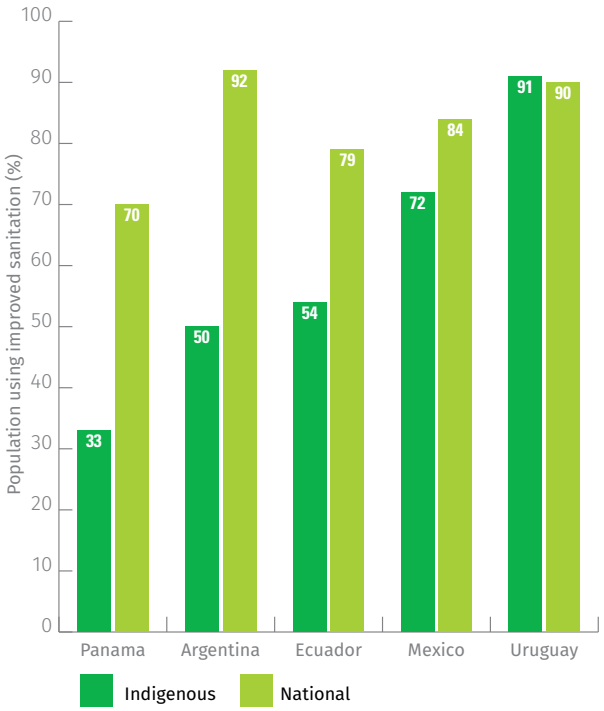


Ethnicity and language

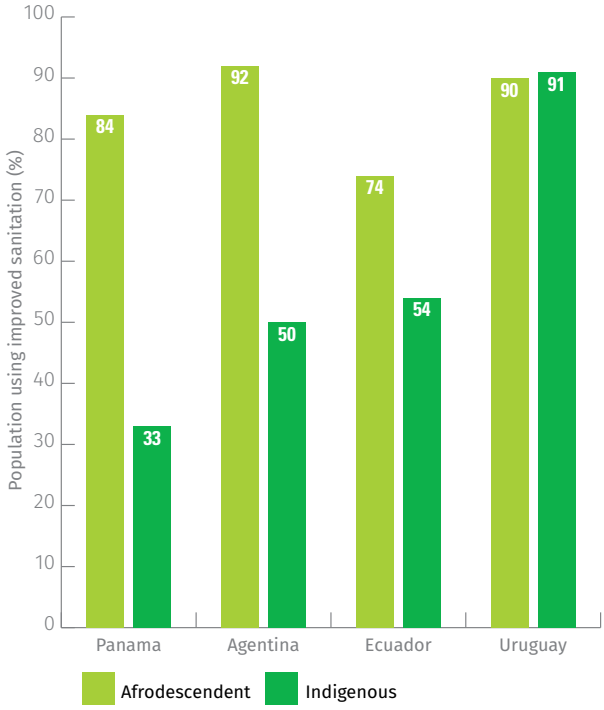
Most censuses and several household surveys ask household members about their ethnic group and in some cases the main languages spoken by household members. These are important characteristics in identifying the most disadvantaged populations. Below we focus primarily on data from the 2010 round of censuses, comparing coverage between indigenous groups and the national average as well as between indigenous and afrodescendents. An example from Paraguay EHP 2014 also shows that language can be strongly associated with sanitation coverage.

Improved sanitation and improved drinking water coverage is lower among indigenous people in several countries with data

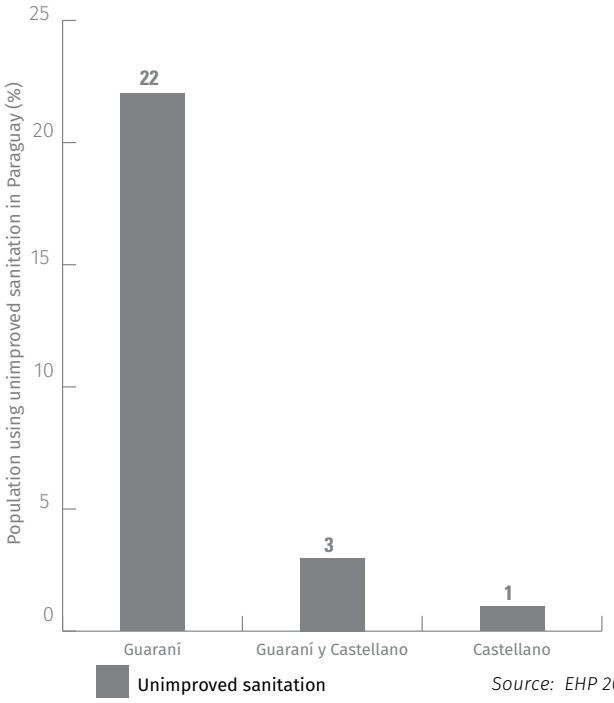




Afrodescendents often have higher improved sanitation coverage than indigenous populations



In Paraguay, speaking only Guarani is strongly associated with use of unimproved sanitation

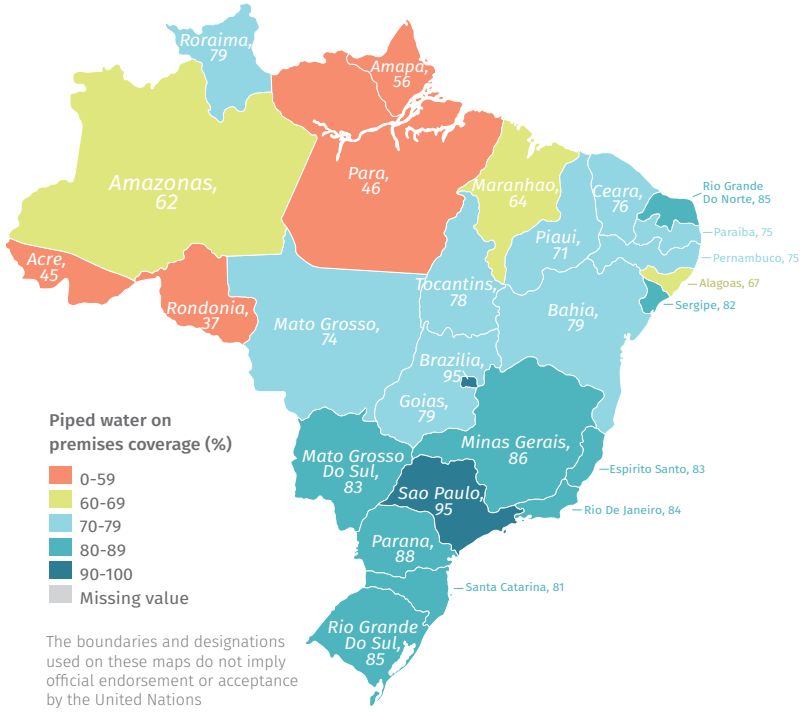


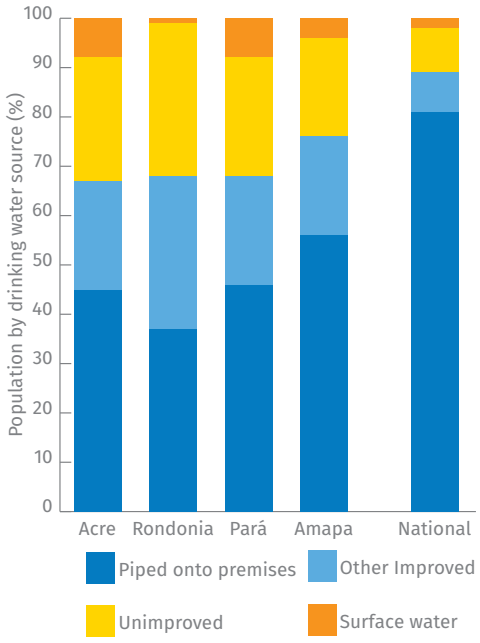
Source: EHP 2014

Regions – drinking water

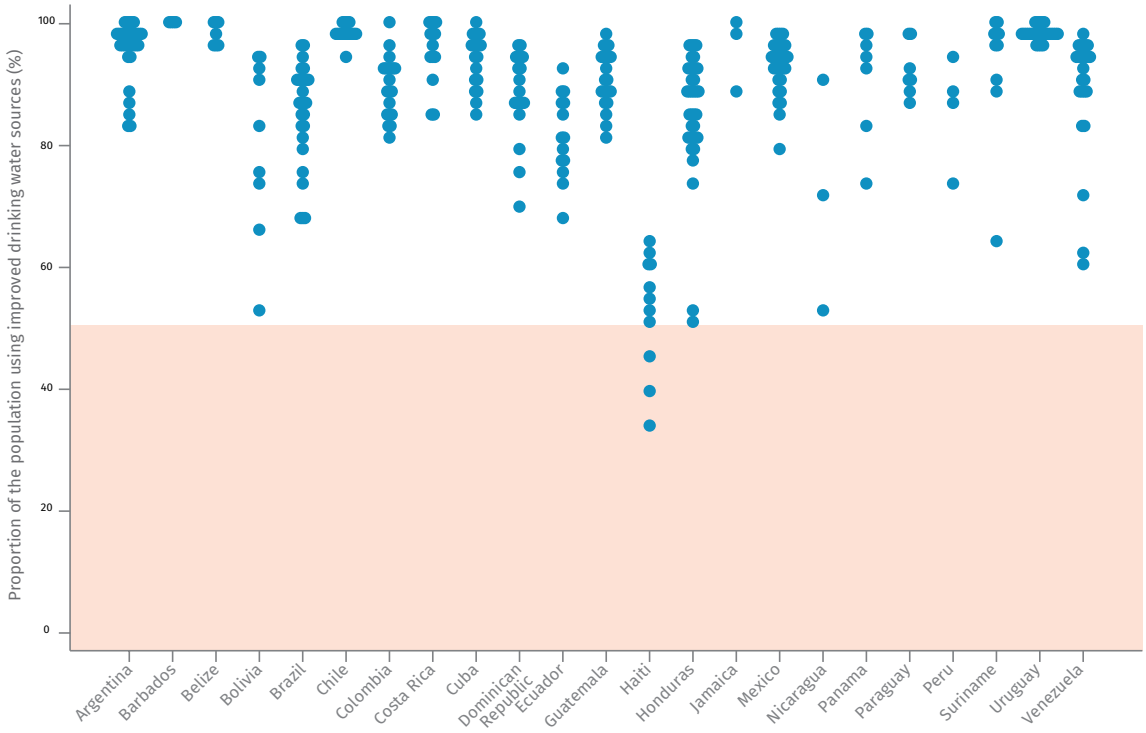
For all countries it is possible to investigate coverage by region. In the map and chart below, differences in coverage are shown for regions of Brazil. Whilst piped water on premises was over 80% nationally according to the census in 2010, coverage was much lower in several regions – especially Rondonia where just over one in three used piped water on premises.

Piped water on premises varies by region in Brazil, with lowest levels in Acre, Amapa, Rondonia and Para





Substantial gaps exist in improved drinking water coverage between regions within many countries in LAC



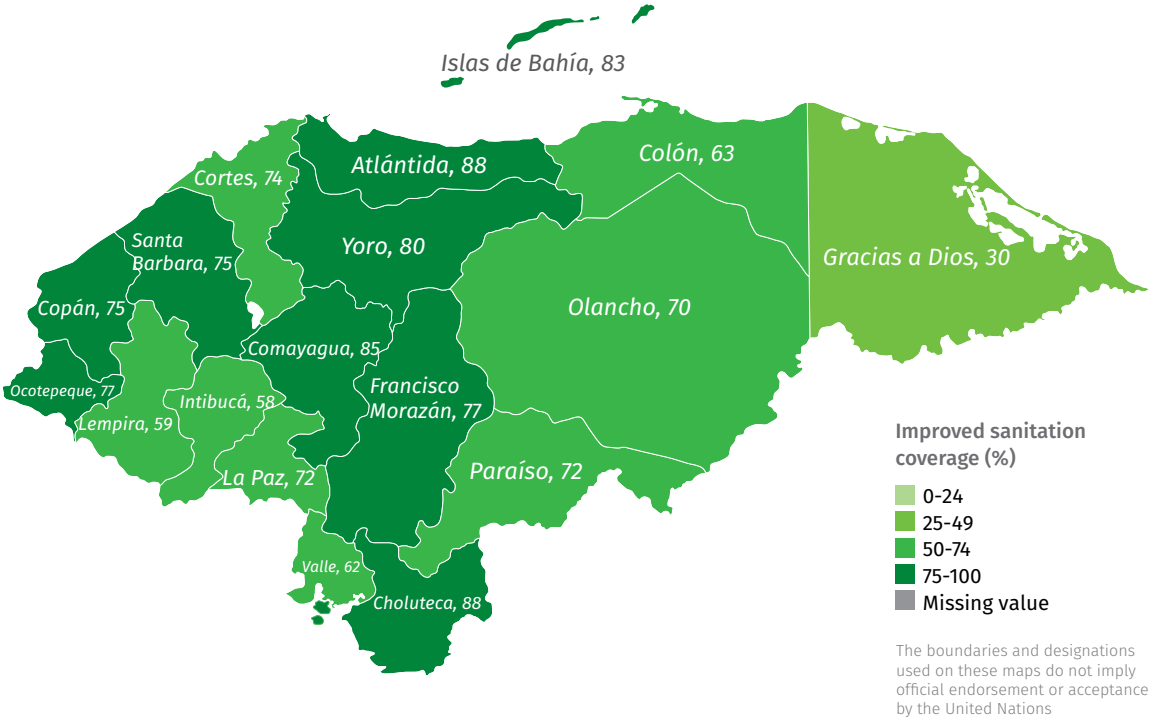
Source: 2010 round of censuses and household surveys

In the chart above each dot represents a region within the country. Regions with similar levels of coverage are shown side by side. We can see from the chart that the number of regions varies between countries making international comparisons challenging – whereas there are 7 regions in Panama there are 19 in Honduras and 32 in Mexico. Nevertheless, we find dramatic differences in coverage between the regions with the highest coverage and the lowest coverage in almost all countries in Latin America and the Caribbean.

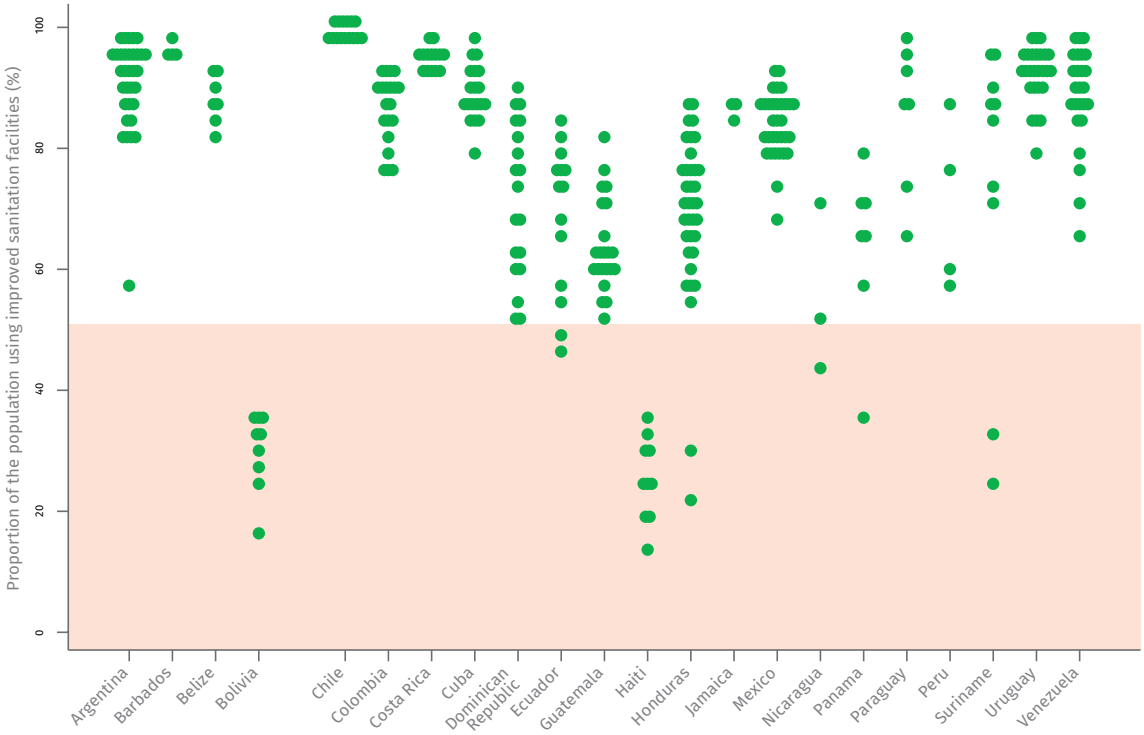
Regions – sanitation

Similarly, coverage of improved sanitation varies considerably by region. In the map below, differences in coverage are shown for regions in Honduras from the recent national census (2013).

Improved sanitation ranges from 88% in Atlantida and Choluteca to only 30 % in Gracias A Dios, Honduras.



In seven countries there is at least one region where less than half of the population uses an improved sanitation facility



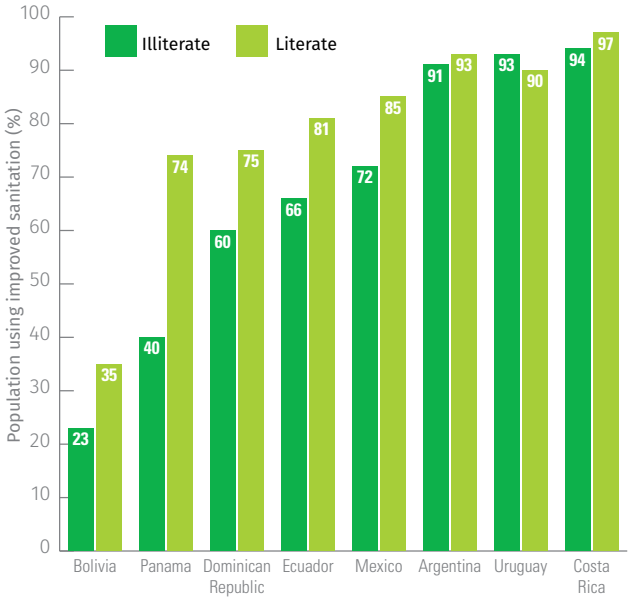
Source: 2010 round of censuses and household surveys

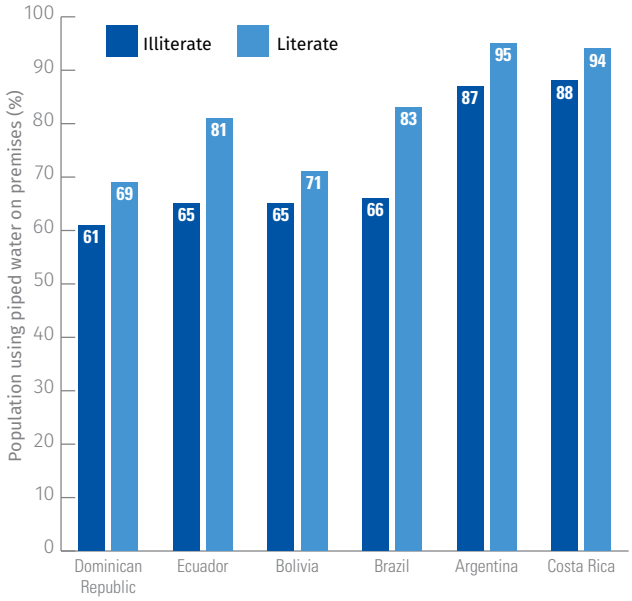
Use of improved sanitation also varies greatly between regions in most countries in Latin America and the Caribbean. In the chart above we find that improved sanitation coverage is below 50% in at least one region in seven countries. In Haiti and Bolivia coverage of improved sanitation is below 50% in all regions of the country.

Literacy and education

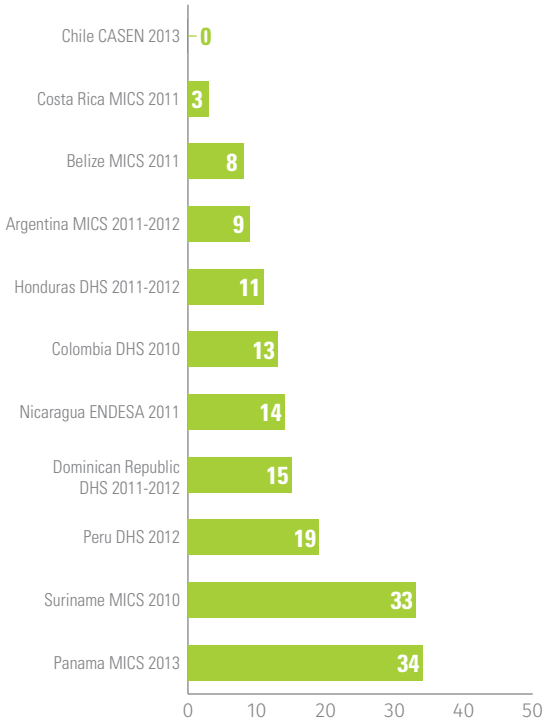
Literate and more educated households often have greater access to services and may also be more aware of the benefits of higher levels of water and sanitation services. They can be more empowered and have greater political voice to demand access to services as one of their basic rights. The charts below show differences in the practice of open defecation by literacy and the gap in coverage between the national level and households where the household head has no formal education.

Illiteracy is associated with lower coverage of improved sanitation and piped water on premises in several countries in Latin America and the Caribbean

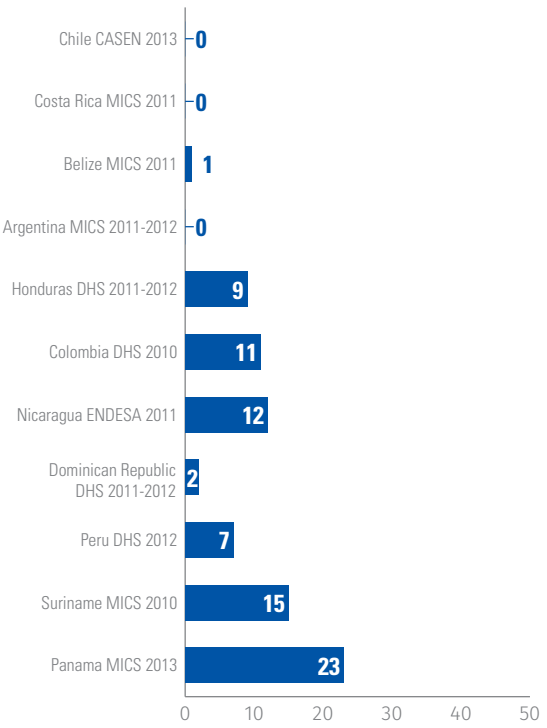




Where a household head has no formal education improved drinking water and sanitation coverage can be much lower than the national average



Difference in improved sanitation coverage among educated household heads (% pt.)

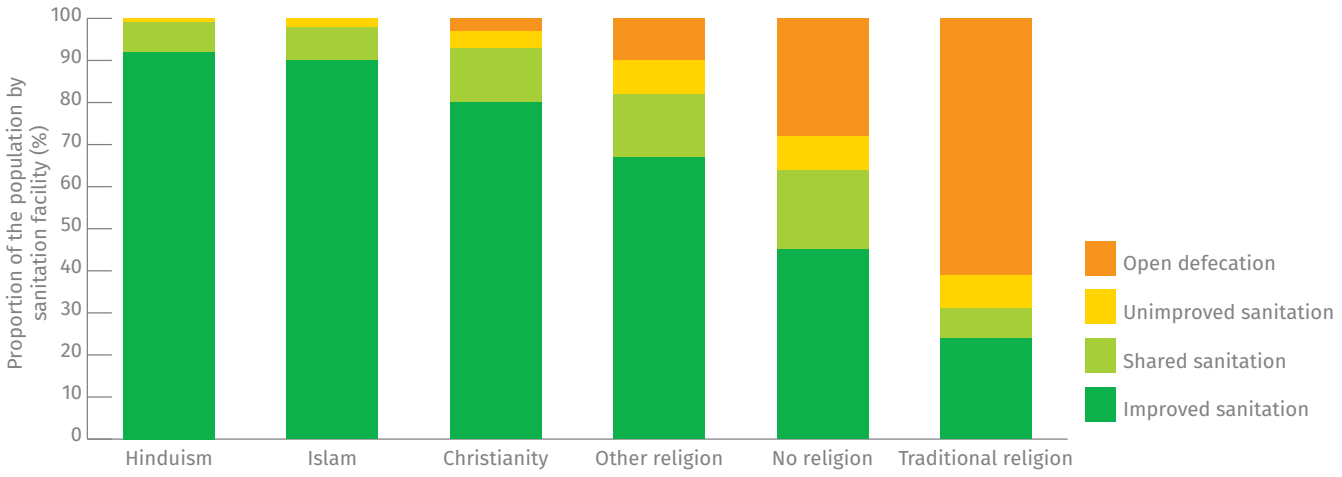


Difference in improved drinking water coverage among educated household heads (% pt.)

Religion

Religion of a household head may be a barrier to accessing services in some countries. It is also possible that particular religions are associated with where households live (rural vs urban), their education level and ethnicity. The MICS survey in Suriname illustrates how big differences can be. Sanitation coverage is much lower for households that practise a "traditional religion".

Practising a traditional religion is associated with lower sanitation coverage in Suriname



Source: MICS 2013

Disability

In households with a disabled person, water and sanitation coverage appears to be similar to the national average as shown in the table below. The surveys and censuses, however, do not collect information on specific challenges faced by disabled people and the definitions of disability vary considerably between countries.

Country	Indicator	Disabled	National
Costa Rica (any disability)	Improved water	95	95
	Improved sanitation	97	97
Ecuador ("permanent" disability)	Improved water	81	83
	Improved sanitation	77	79
Mexico (physical or mental)	Improved water	93	93
	Improved sanitation	82	84
Panama (any disability in list)	Improved water	92	93
	Improved sanitation	69	70

Definitions

Improved drinking water. An improved drinking water source is one that, by the nature of its construction, adequately protects the source from outside contamination, particularly faecal matter. Improved sources include: Piped household water connection located inside the user's dwelling, plot or yard, public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, rainwater collection. Bottled water is considered 'improved' when the household uses an improved source for cooking and personal hygiene. The definition of Improved drinking water does not capture accessibility, availability and quality of the service; the Sustainable Development Goal indicator "safely managed drinking water" will consider all of these elements.

Improved sanitation. An improved sanitation facility is one that hygienically separates human excreta from human contact. Improved sanitation facilities include: Flush/pour flush to piped sewer system, septic tank or pit latrine, ventilated improved pit (VIP) latrine, pit latrine with slab or composting toilet. Only facilities that are not shared or not public are considered improved. The definition of Improved sanitation does not address the management of the sanitation chain which is a priority for the Sustainable Development Goal indicator "safely managed sanitation".

Data
This snapshot is drawn from the WHO/UNICEF Joint Monitoring Program for Water Supply and Sanitation (JMP) 2015 Update and further analysis of household survey and census data (2010-2015) in Latin America and the Caribbean. The JMP exclusively based the estimates for Latin America and the Caribbean on nationally representative data from National Statistics Offices, such as household surveys and national censuses.

For more data and information on the JMP and monitoring of water and sanitation and hygiene (WASH) during the Sustainable Development Goal period visit: www.wssinfo.org

A woman from the indigenous Rama community carries buckets filled with water that she just fetched from an underground well, on the island of Rama Cay, in the eastern coastal Bluefields Lagoon, in South Atlantic Autonomous Region, Nicaragua. The well's water, which is not safe for drinking, is only used for household purposes such as washing clothes or cleaning.

JMP website: www.wssinfo.org

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