Ministry of Health - Brazil
FIOCRUZ (Oswaldo Cruz Foundation)
René Rachou Institute

# "2030 AGENDA FOR WATER, SANITATION AND HYGIENE IN LATIN AMERICA AND THE CARIBBEAN: A LOOK FROM THE HUMAN RIGHTS PERSPECTIVE"

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Vitor Carvalho Queiroz

# BACKGROUND

UN General Assembly Resolution 64/292 in **2010**: Recognition of the **Human Right to Water and Sanitation**

Normative content:

- *Availability*
- *Physical Accessibility*
- *Quality And Safety*
- *Affordability*
- *Acceptability*
- *Dignity And Privacy*

# BACKGROUND

**The 2030 Agenda for Sustainable Development (2015)**

…

SDG 6. Ensure availability and sustainable management of water and sanitation for all

…

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Indicator 6.1.1:

Proportion of population using safely managed drinking water services

# BACKGROUND

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

Indicator 6.2.1a:

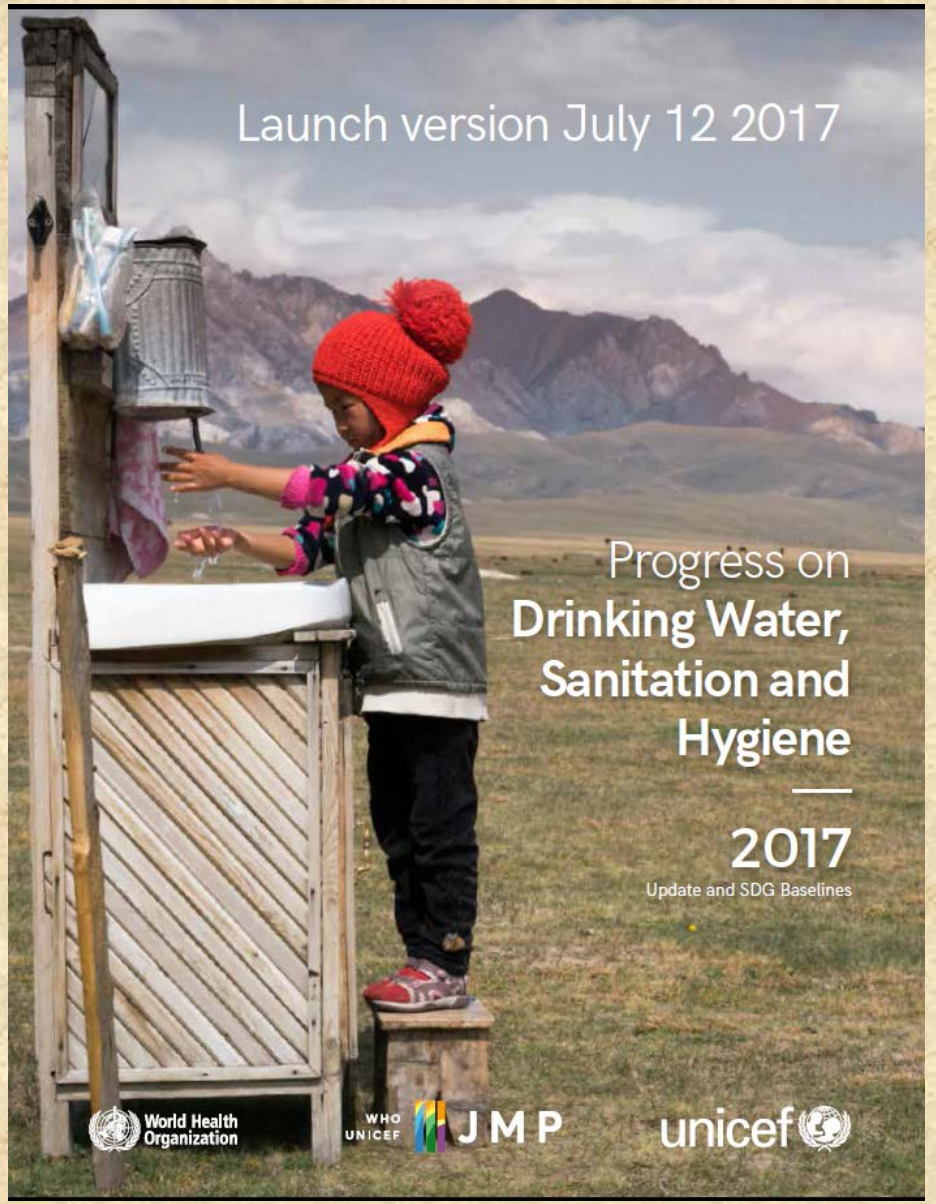
Proportion of population using safely managed sanitation services

Indicator 6.2.1b:

Proportion of population using hand-washing facilities with soap and water

# STRUCTURE OF THE REPORT

1. Introduction
2. Access to WASH services in Latin America and the Caribbean
3. Inequalities in the access to WASH services
    - 3.1 Analysis of Inequalities by subgroups
    - 3.2 Multiple layers of inequality
    - 3.3 Water and Sanitation Access Adjusted by Inequality
4. Affordability
5. Institutional evaluation of the WASH sectors
6. Joint analysis: Access Data and Institutional Aspects
7. Case studies
8. Conclusions and recomendations




UN WATER

World Health Organization

# FINANCING UNIVERSAL WATER, SANITATION AND HYGIENE UNDER THE SUSTAINABLE DEVELOPMENT GOALS

**UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water**

**GLAAS 2017 Report**

glaas | UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water

# JMP classification of improved and unimproved facility types

| | DRINKING WATER[2] | SANITATION |
|---|---|---|
| **Improved facilities** | Piped supplies<br>• Tap water in the dwelling, yard or plot<br>• Public standposts<br>Non-piped supplies<br>• Boreholes/tubewells<br>• Protected wells and springs<br>• Rainwater<br>• Packaged water, including bottled water and sachet water<br>• Delivered water, including tanker trucks and small carts | Networked sanitation<br>• Flush and pour flush toilets connected to sewers<br>On-site sanitation<br>• Flush and pour flush toilets or latrines connected to septic tanks or pits<br>• Ventilated improved pit latrines<br>• Pit latrines with slabs<br>• Composting toilets, including twin pit latrines and container-based systems |
| **Unimproved facilities** | Non-piped supplies<br>• Unprotected wells and springs | On-site sanitation<br>• Pit latrines without slabs<br>• Hanging latrines<br>• Bucket latrines |
| **No facilities** | Surface water | Open defecation |

Table 1-1

| SERVICE LEVEL | DEFINITION |
| --- | --- |
| SAFELY MANAGED | Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination |
| BASIC | Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing |
| LIMITED | Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing |
| UNIMPROVED | Drinking water from an unprotected dug well or unprotected spring |
| SURFACE WATER | Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal |

***Note:*** *Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water.*

| SERVICE LEVEL | DEFINITION |
| --- | --- |
| **SAFELY MANAGED** | Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite |
| **BASIC** | Use of improved facilities that are not shared with other households |
| **LIMITED** | Use of improved facilities shared between two or more households |
| **UNIMPROVED** | Use of pit latrines without a slab or platform, hanging latrines or bucket latrines |
| **OPEN DEFECATION** | Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste |

***Note:*** *improved facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.*

| SERVICE LEVEL | DEFINITION |
| --- | --- |
| **BASIC** | Availability of a handwashing facility on premises with soap and water |
| **LIMITED** | Availability of a handwashing facility on premises without soap and water |
| **NO FACILITY** | No handwashing facility on premises |

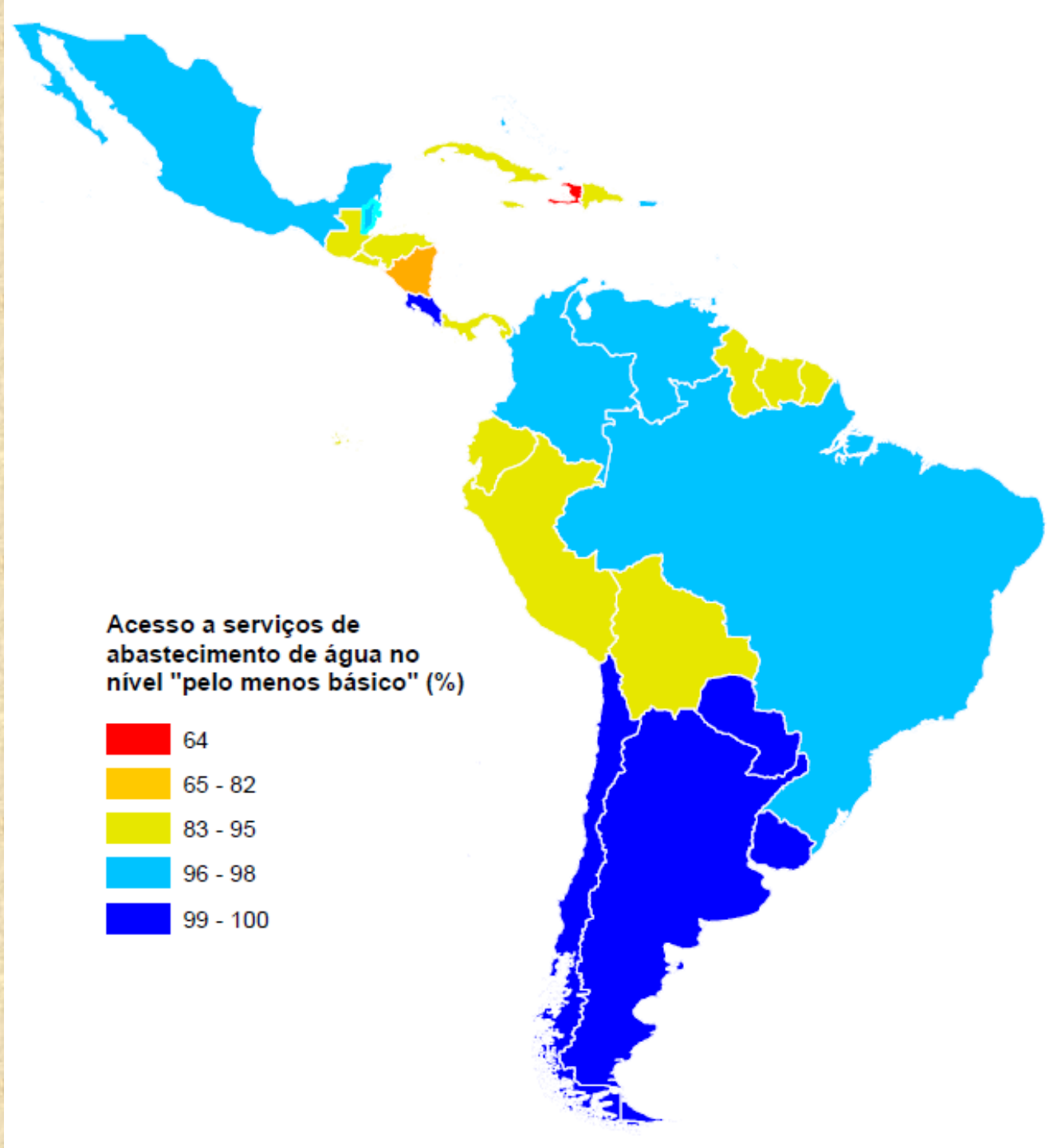
***Note:*** *Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.*

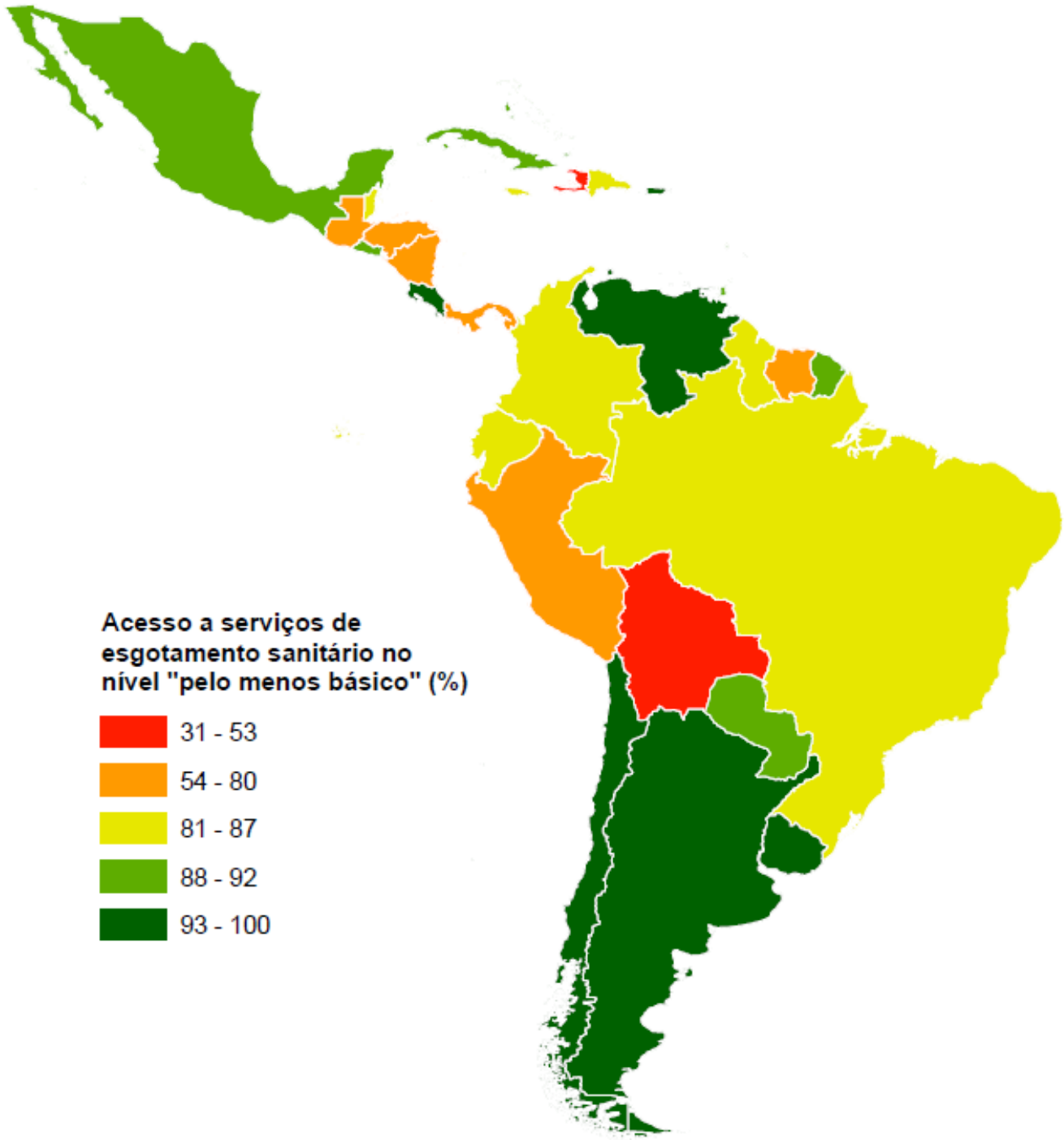
# MAIN DATA SOURCES

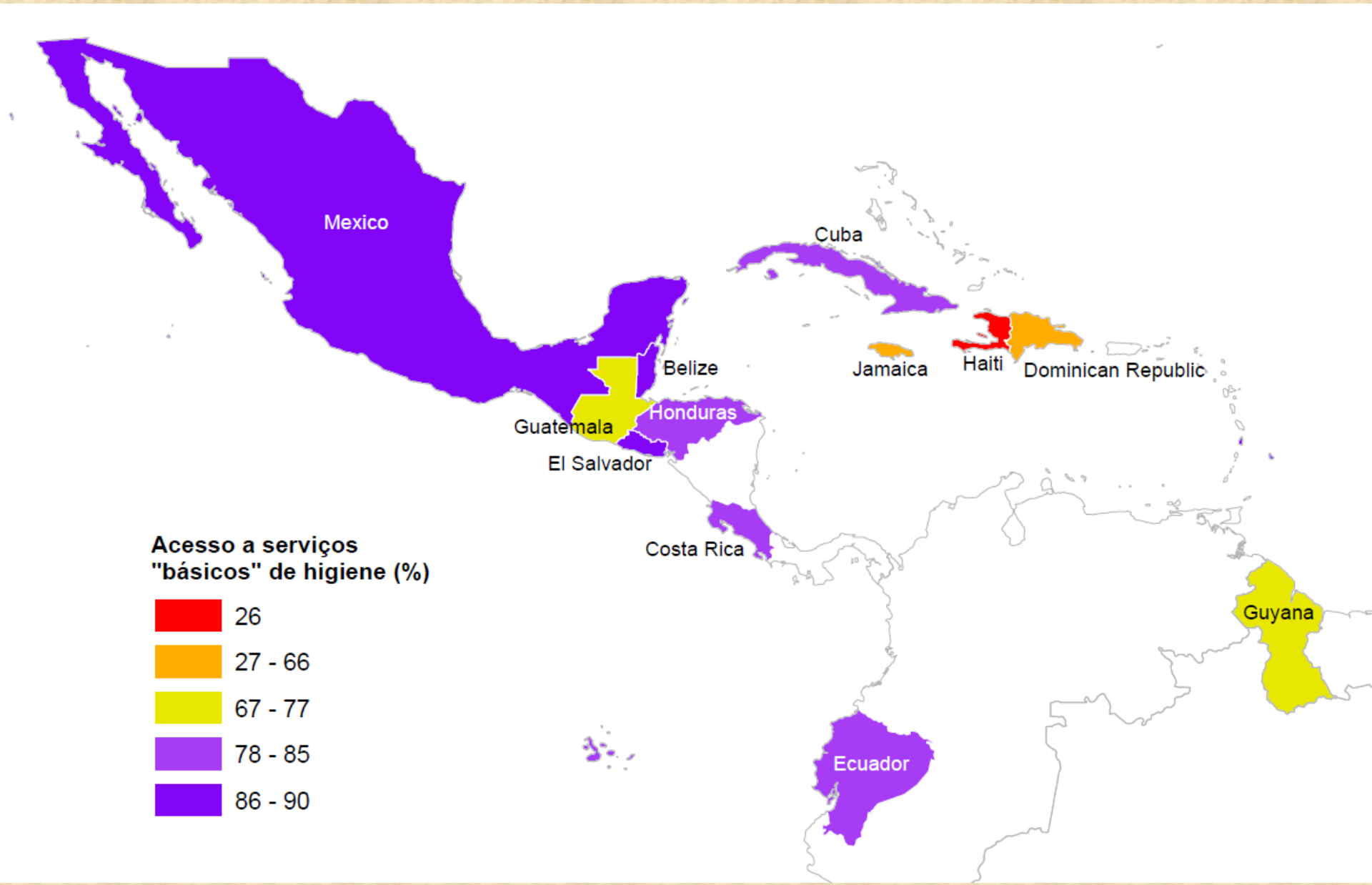
- JMP (Joint Monitoring Program)
- GLAAS (Global Analysis and Assessment of Sanitation and Drinking-Water – UN-Water/OMS)
- Multiple Indicator Cluster Surveys (MICS)
- Demographic and Health Surveys (DHS)
- IPUMS-International Project (MPS)
- IBNET (The International Benchmarking Network for Water and Sanitation Utilities)


Países da América
do Norte e Central
(97%)
Caribe
(86%)
Países
Andinos
(95%)
Cone Sul
(98%)


Países da América
do Norte e Central
(86%)
Caribe
(71%)
Países
Andinos
(82%)
Cone Sul
(89%)


Acesso a serviços de abastecimento de água no nível "pelo menos básico" (%)
64
65 - 82
83 - 95
96 - 98
99 - 100


Acesso a serviços de esgotamento sanitário no nível "pelo menos básico" (%)
31 - 53
54 - 80
81 - 87
88 - 92
93 - 100

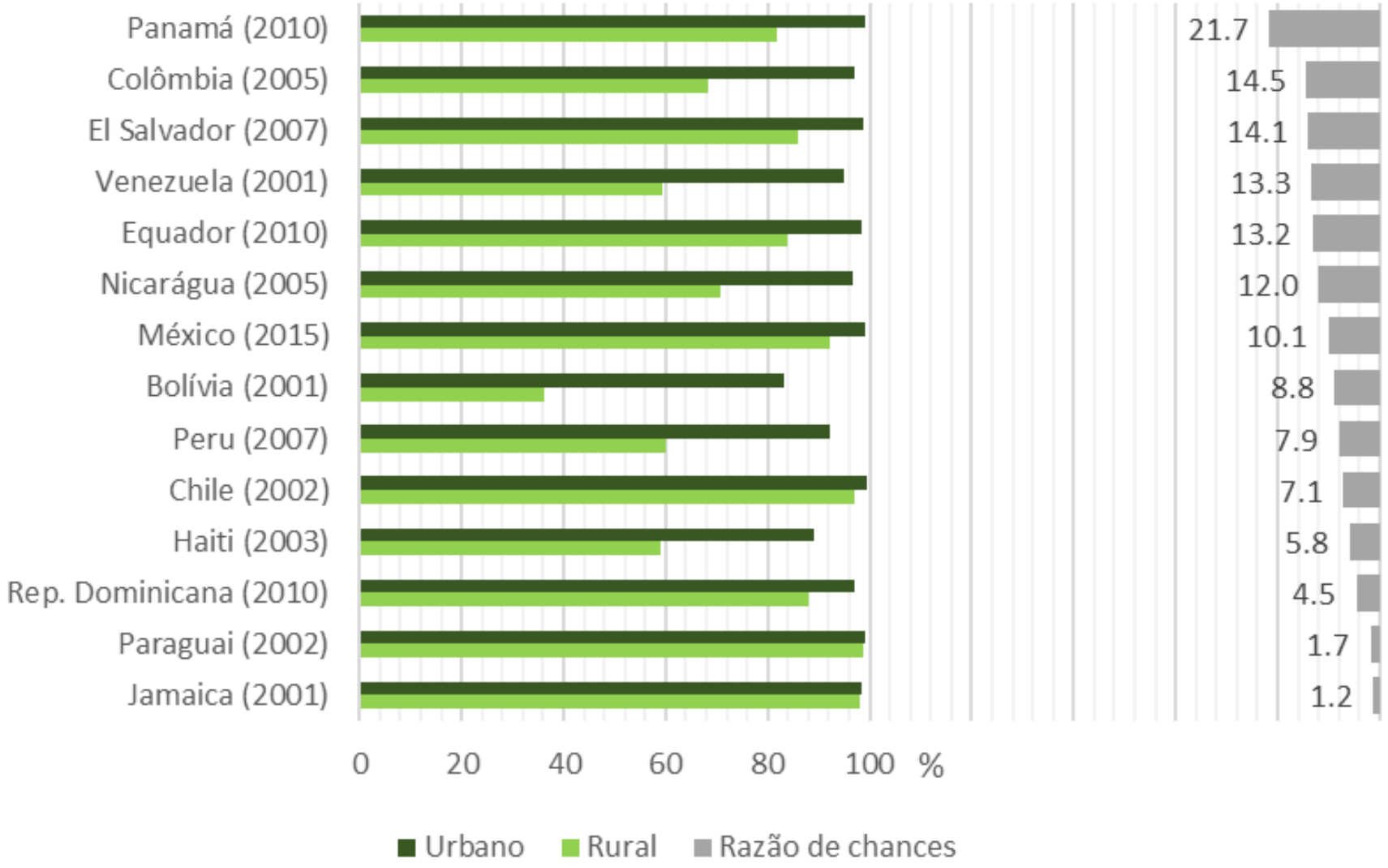

Mexico
Cuba
Belize
Jamaica
Haiti
Dominican Republic
Guatemala
Honduras
El Salvador
Costa Rica
Guyana
Ecuador
Acesso a serviços "básicos" de higiene (%)
26
27 - 66
67 - 77
78 - 85
86 - 90

# Inequalities in the access to water supply, sanitation and hygiene services

Multiple criteria for disaggregation of the population in subgroups:

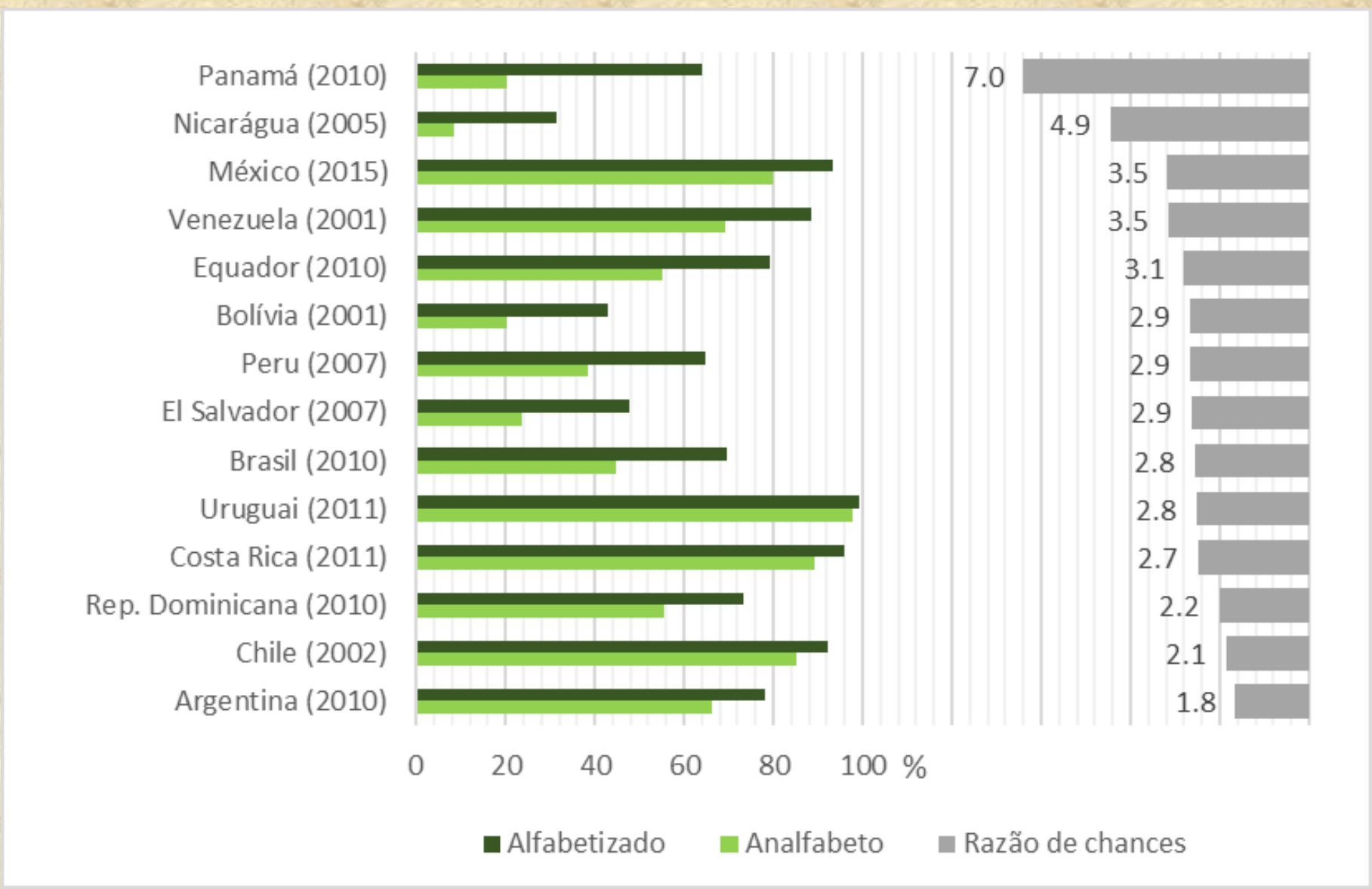
- *Urban and rural areas*
- *Literacy status*
- *Household head educational attainment*
- *Indigenous status*
- *Race*
- *Sex and age*
- *Wealth*

# Access to toilet by Rural-Urban Status (%)



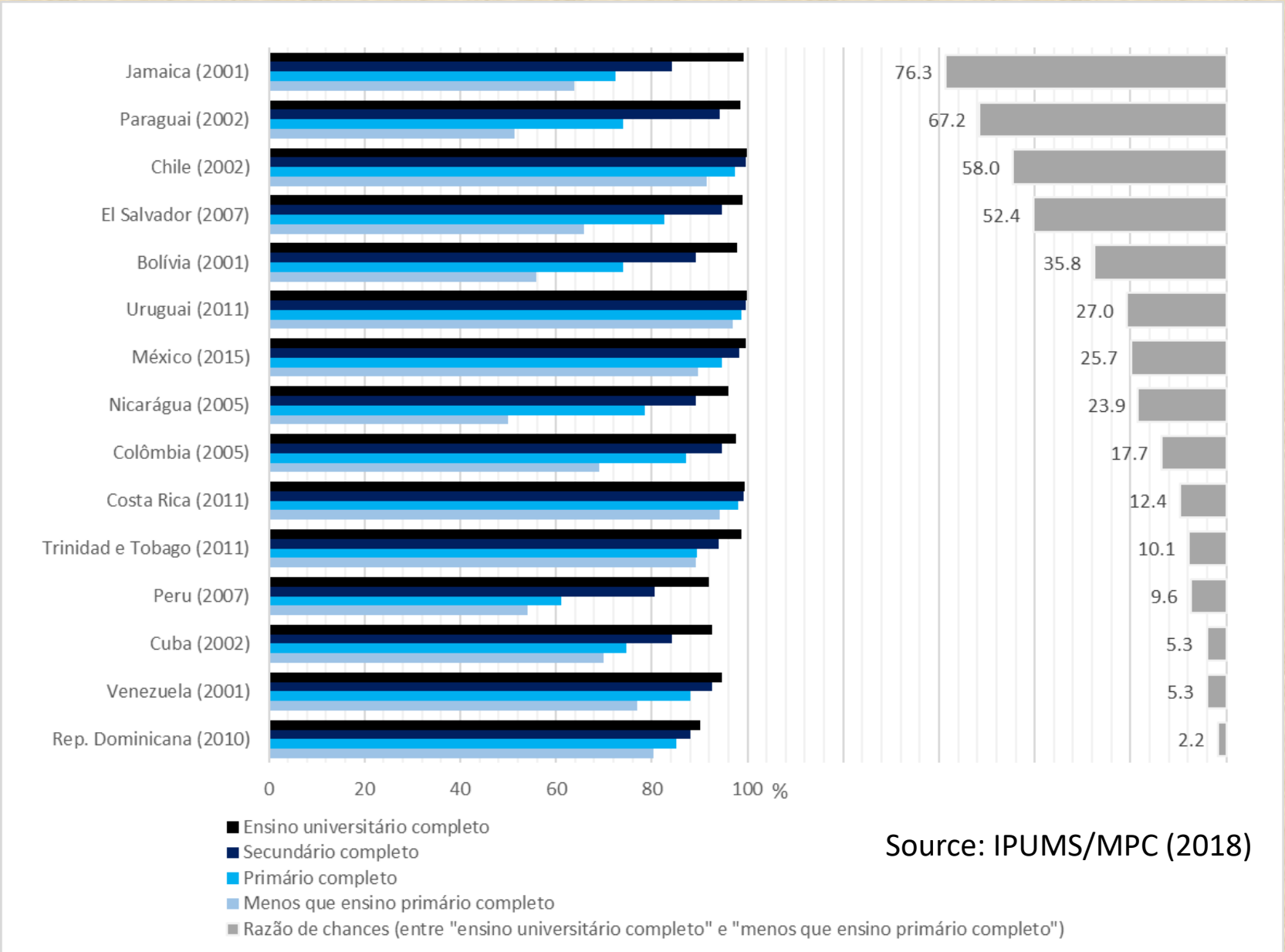

Source: IPUMS/MPC (2018)

# Access to sewage systems or septic tanks by Literacy Status (%)



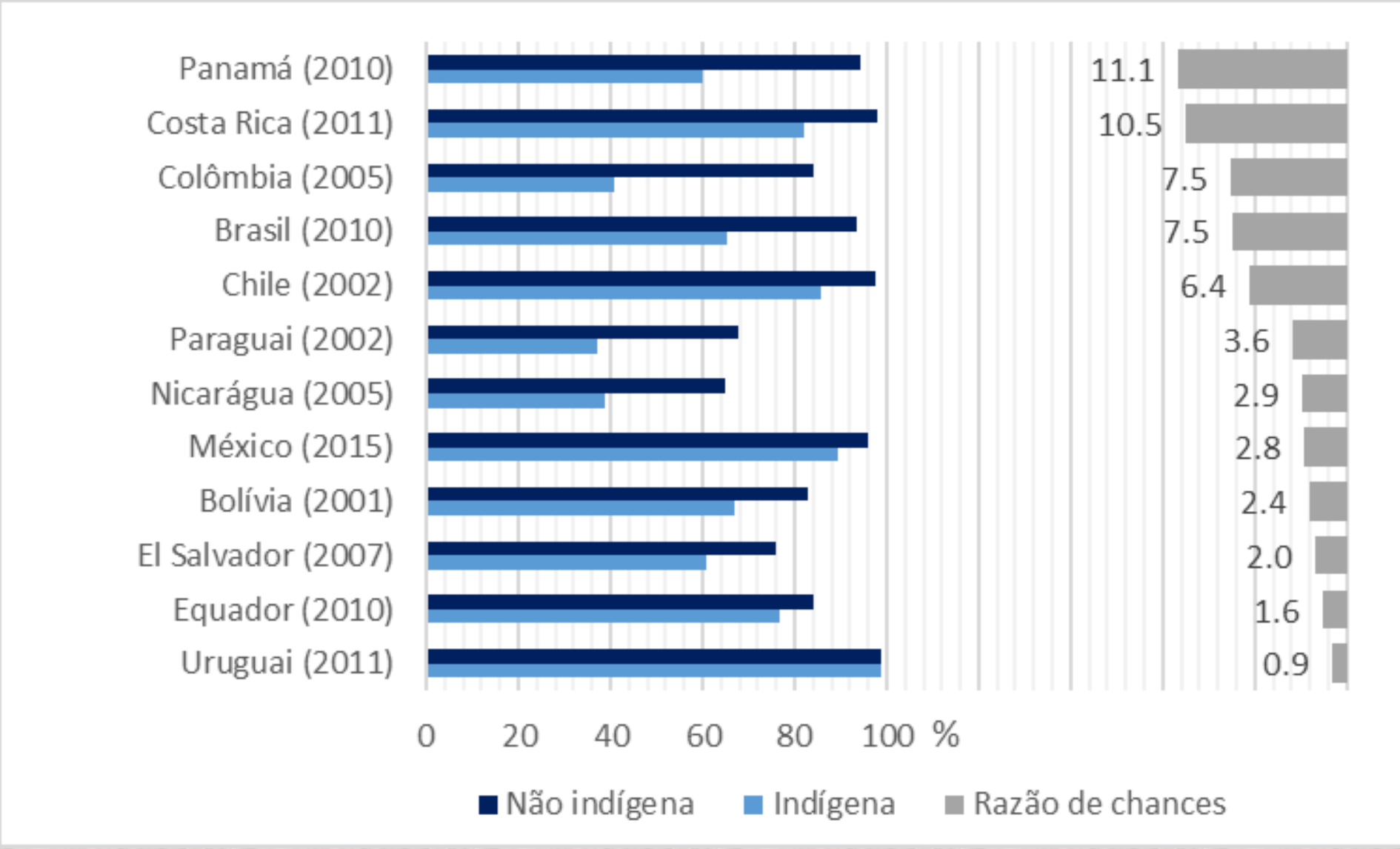

Source: IPUMS/MPC (2018)

# Access to piped water by Educational Attainment of Household Head Status (%)



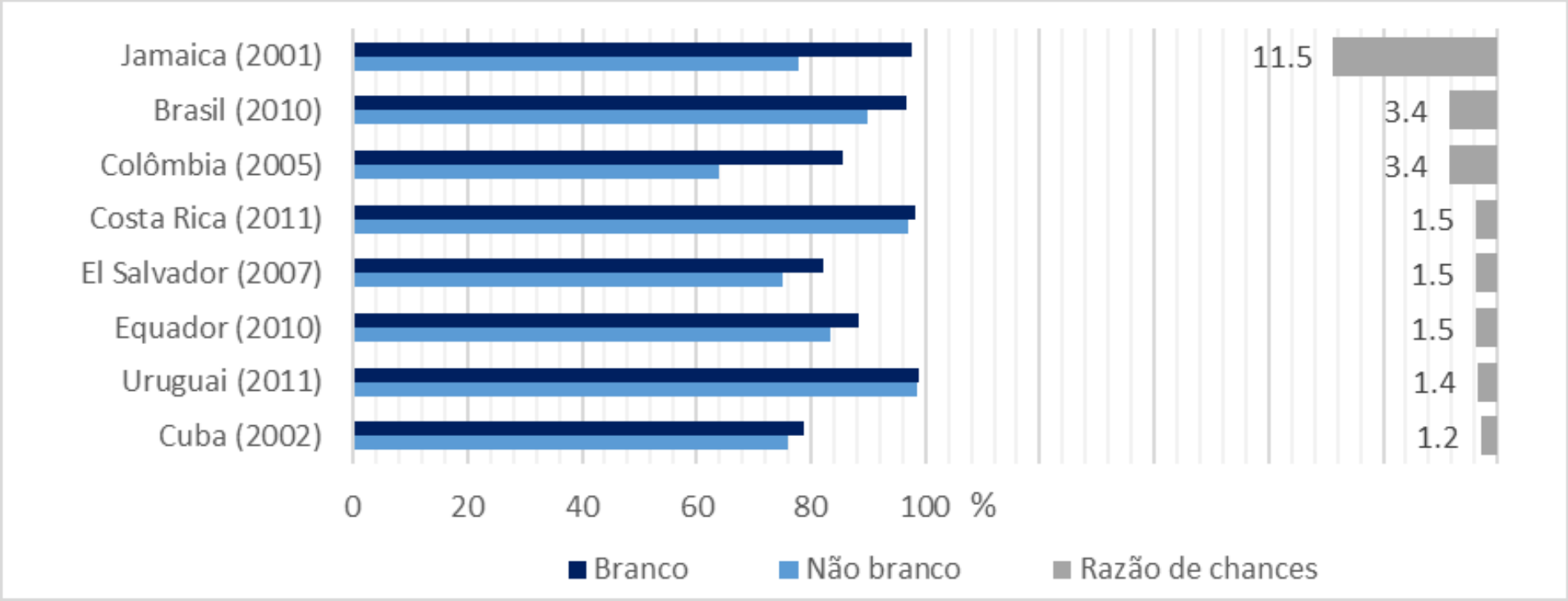

Source: IPUMS/MPC (2018)

# Access to piped water by Indigenous Status (%)



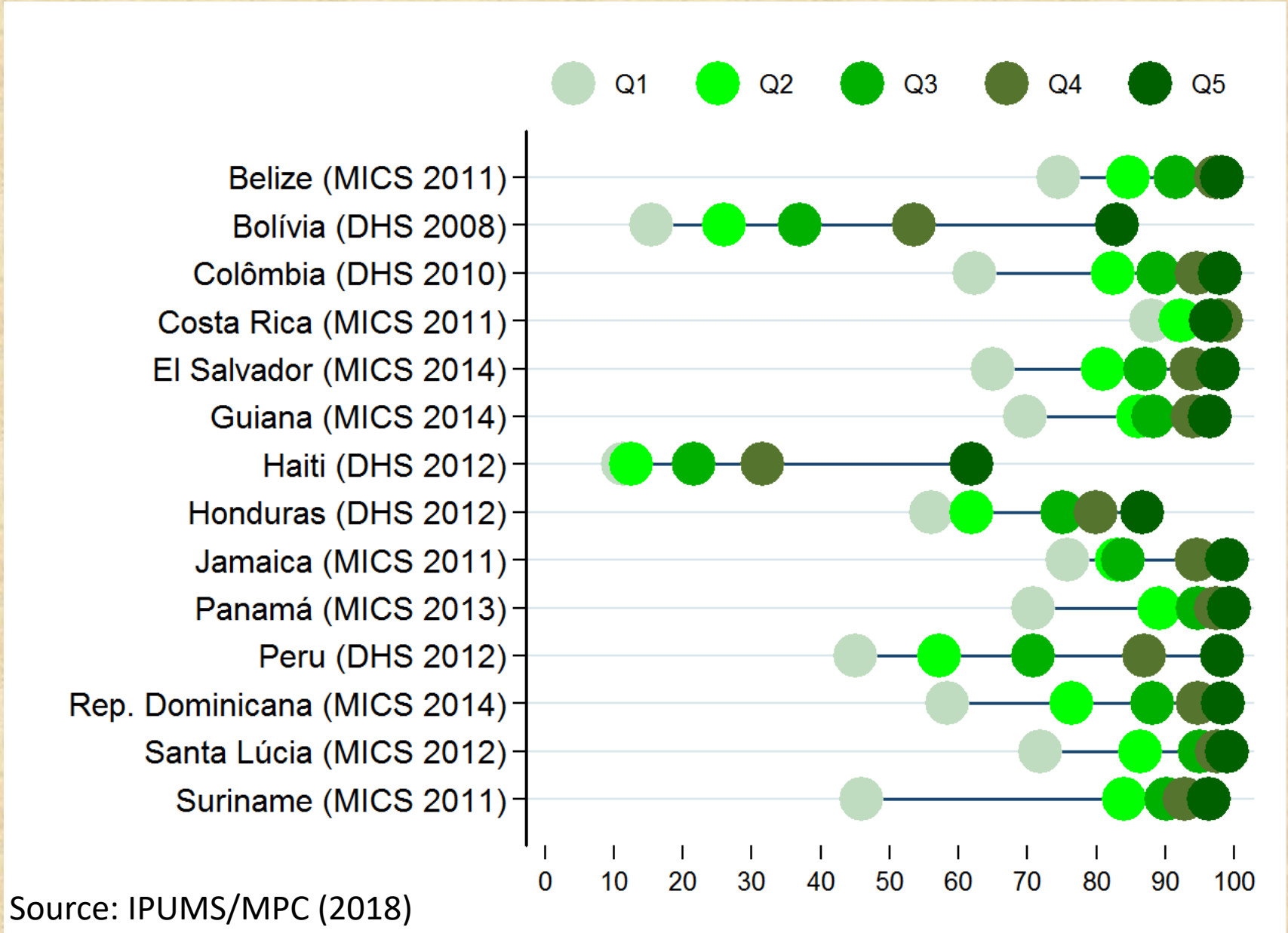

Source: IPUMS/MPC (2018)

# Access to piped water by race (%)



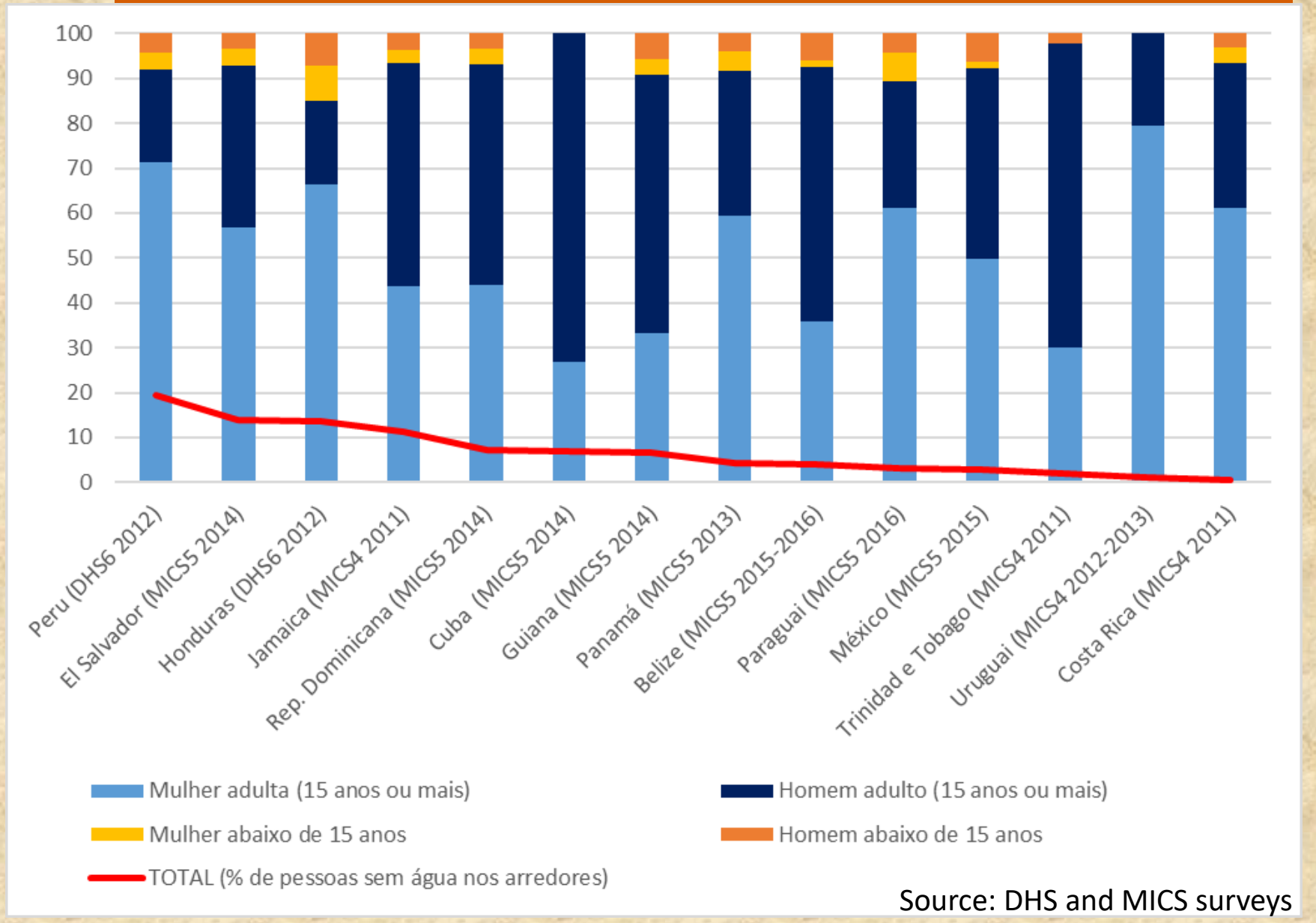

Source: IPUMS/MPC (2018)

# Access to “at least basic” services of sanitation by wealth quintiles




Source: IPUMS/MPC (2018)

# Proportion of the population without water on premises and main person responsible for collecting water




Source: DHS and MICS surveys

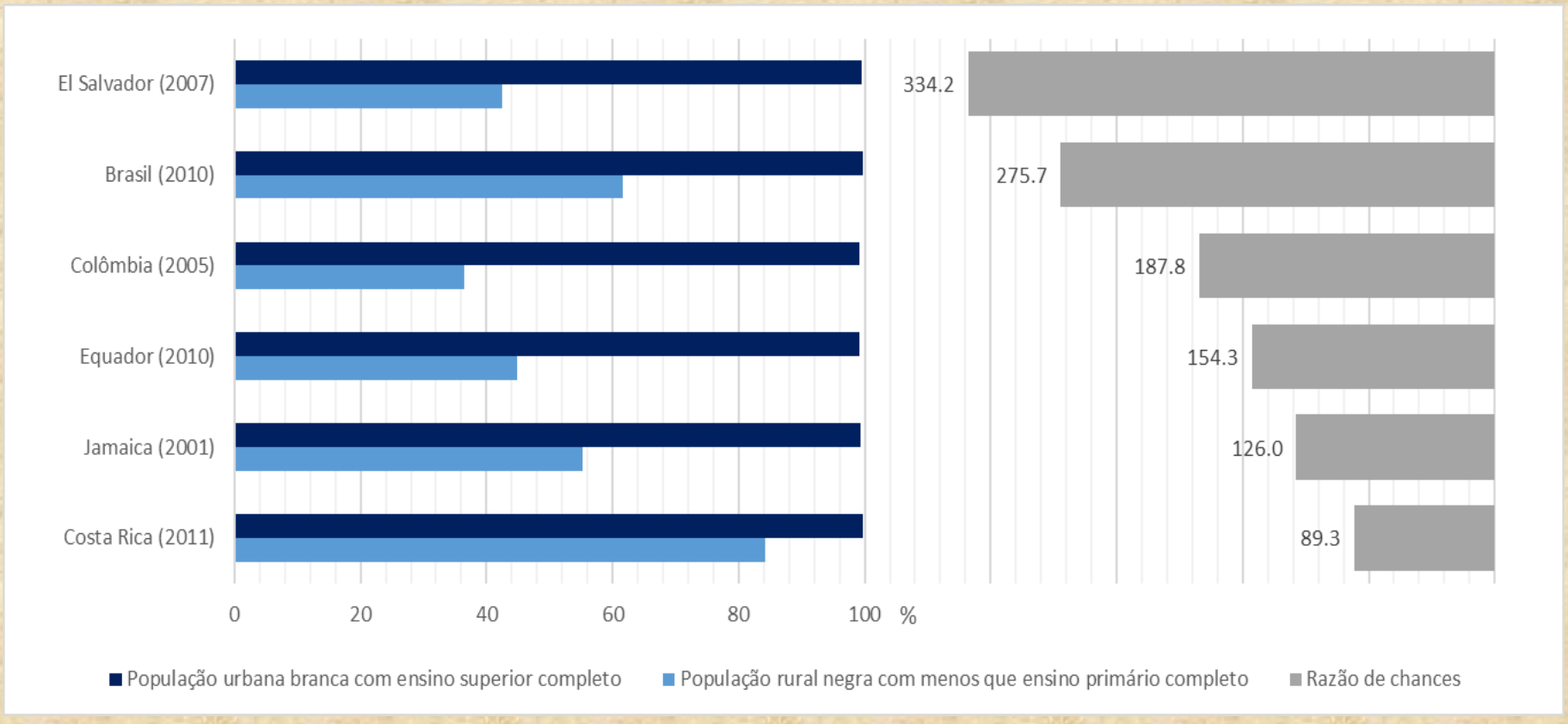
# MULTIPLE LAYERS OF INEQUALITY

Access to piped water by

**White urban population with complete higher education**

X

**Black rural population with less than complete primary education**




Source: IPUMS/MPC (2018)

# Water and Sanitation Access Adjusted by Inequality

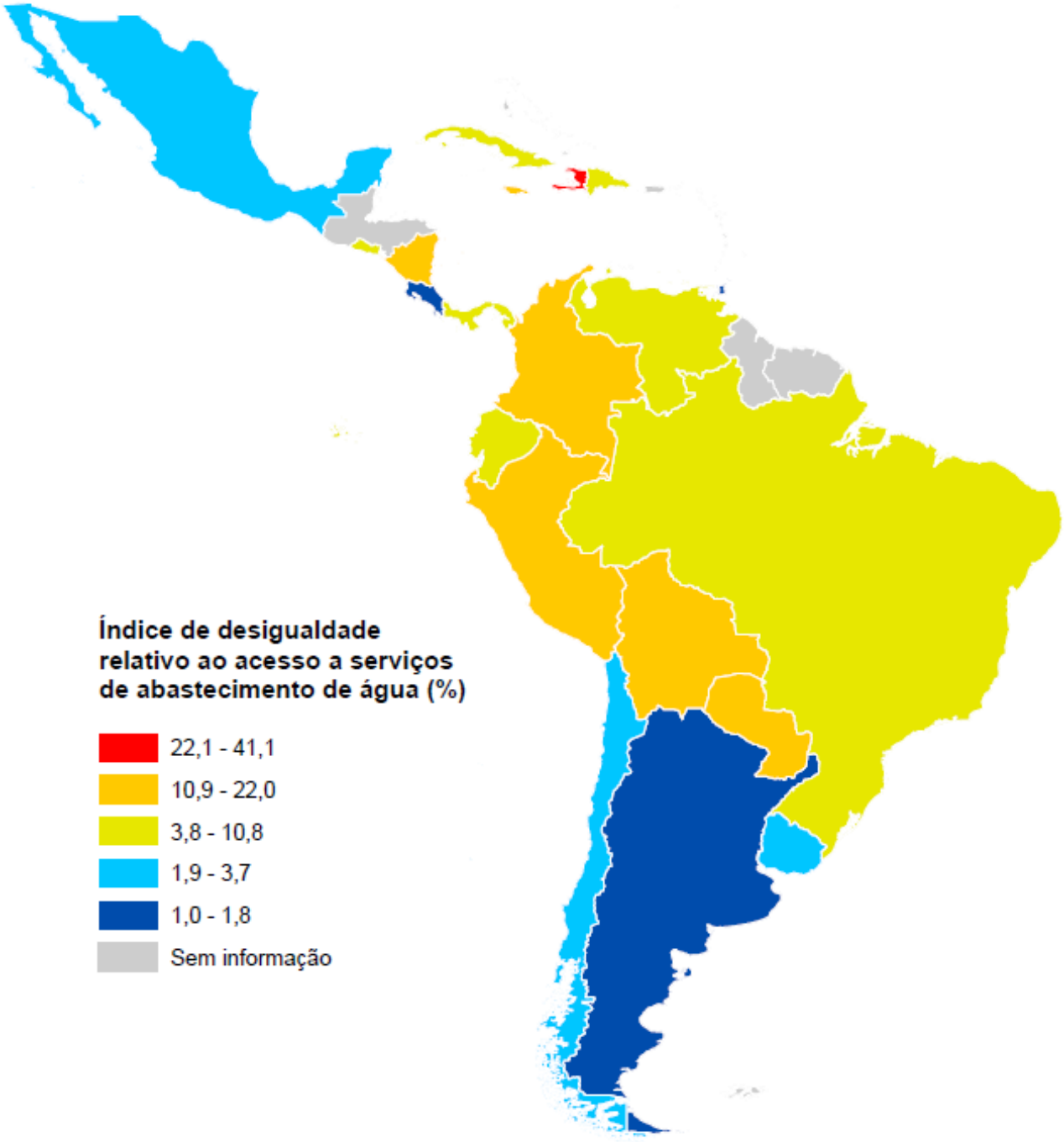
## Water Access Adjusted by inequality

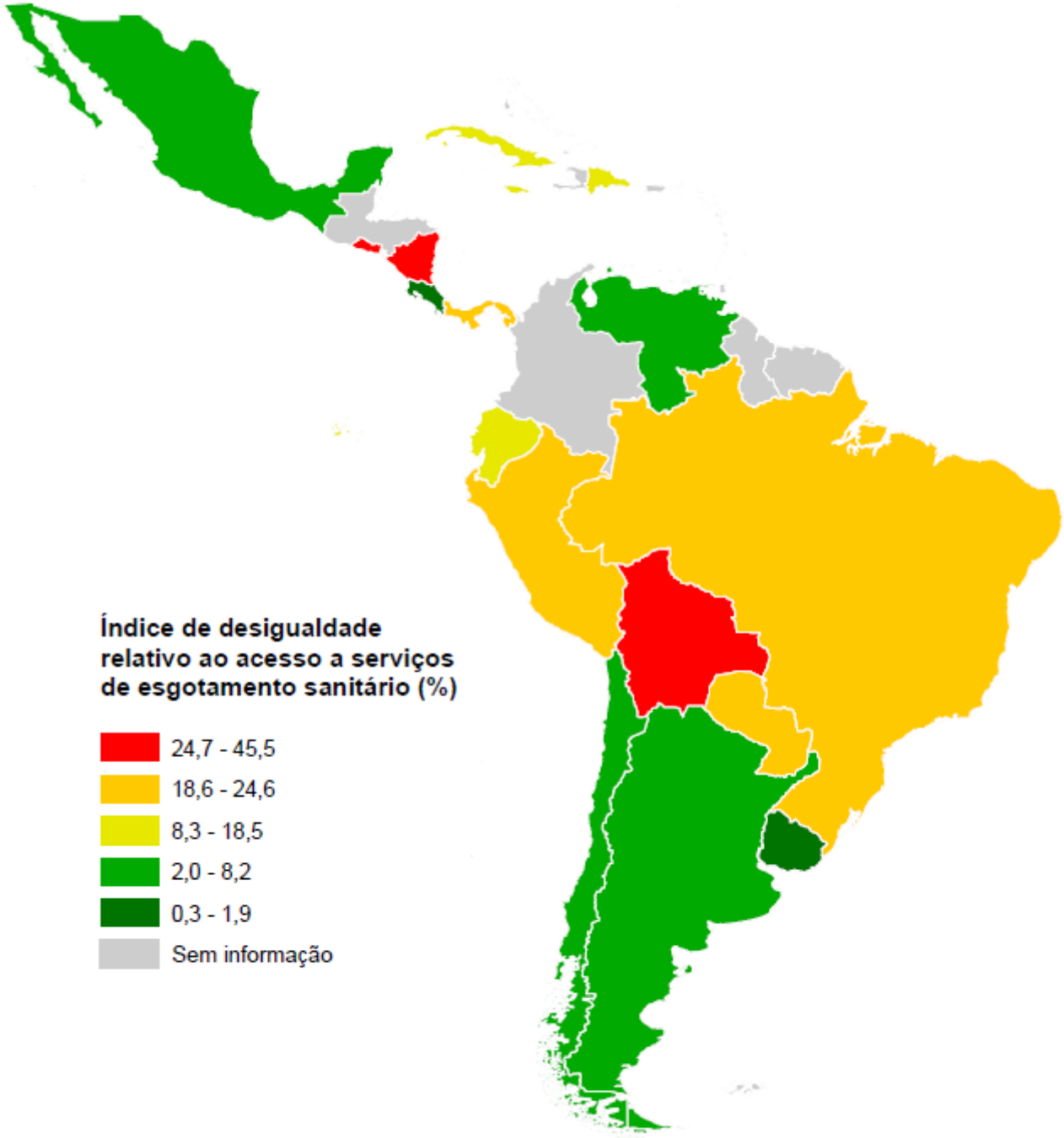
$$AAAD = A_A.(1 - D_A)$$

## Sanitation Access Adjusted by inequality

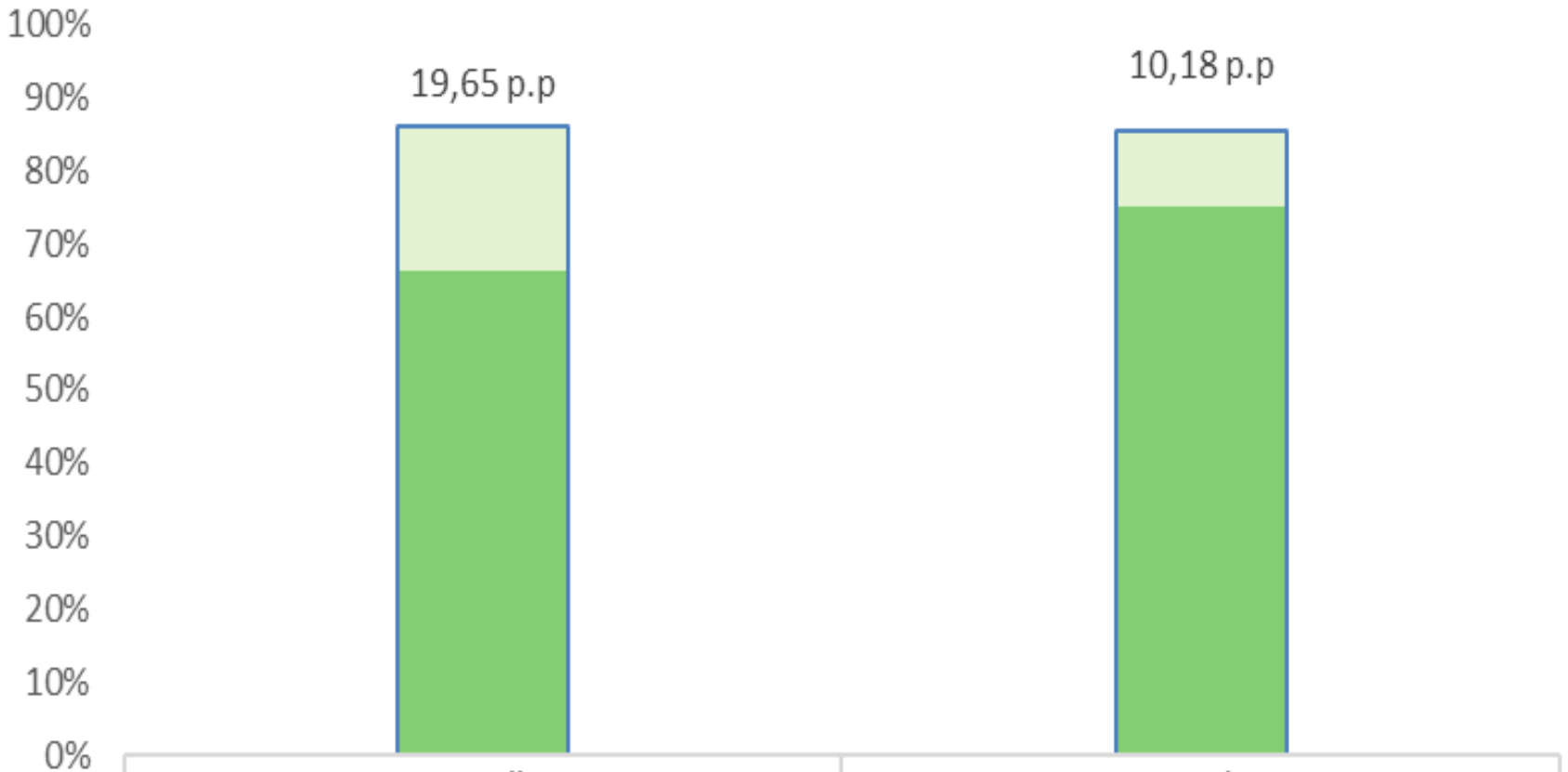
$$AEAD = A_E.(1 - D_E)$$

These indexes calculate the access rate *weighted by the way access to services are distributed*. If there is no inequality, the variable D equals zero. Therefore, the part of the equation *(1 - D) acts as a reducer, or a way to penalize inequalities.*


Índice de desigualdade relativo ao acesso a serviços de abastecimento de água (%)
22,1 - 41,1
10,9 - 22,0
3,8 - 10,8
1,9 - 3,7
1,0 - 1,8
Sem informação


Índice de desigualdade relativo ao acesso a serviços de esgotamento sanitário (%)
24,7 - 45,5
18,6 - 24,6
8,3 - 18,5
2,0 - 8,2
0,3 - 1,9
Sem informação

# Example: “At least basic” sanitation services Access Adjusted by Inequality




| | Brasil | Equador |
|---|---|---|
| IAE | 66,35% | 75,29% |
| ATB Esgoto | 86,00% | 85,47% |

# AFFORDABILITY

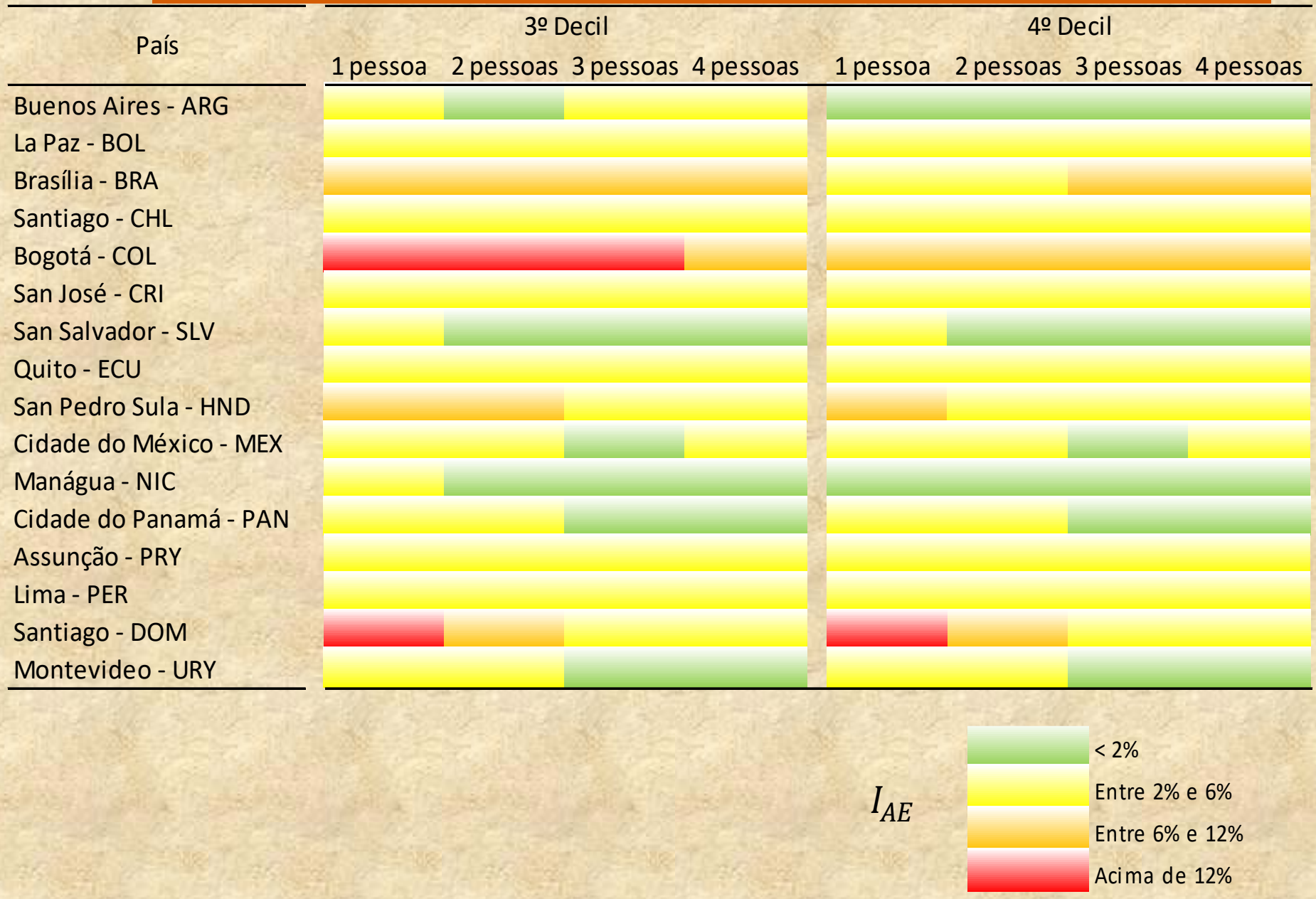
Indicator:

$$I_{AE} = n\frac{(G_A + G_E)}{R_D}$$

- Definition of a level of *per capita* consumption by month (5m³)
- Use of IBNET databases to define spending with water and sanitation
- Only the poorest deciles of wealth were considered

# AFFORDABILITY

# AFFORDABILITY



# Institutional evaluation of the WASH sectors

Esgoto - URBANO

| Suficiência de Recursos | Não existem medidas | Existem medidas, mas não são aplicadas constantemente | Existem medidas e são aplicadas constantemente |
|---|---|---|---|
| mais do que 75% dos recursos necessários | Chile<br>Colômbia<br>Panamá | Peru | |
| entre 50% e 75% dos recursos necessários | Argentina<br>Cuba | Brasil | |
| menos do que 50% dos recursos necessários | Rep. Dominicana<br>Haiti<br>Honduras<br>Jamaica<br>Uruguai | México<br>Paraguai<br>Venezuela | Costa Rica |

Financiamento Vulneráveis

Esgoto - RURAL

| Suficiência de Recursos | Não existem medidas | Existem medidas, mas não são aplicadas constantemente | Existem medidas e são aplicadas constantemente |
|---|---|---|---|
| mais do que 75% dos recursos necessários | Panamá | | |
| entre 50% e 75% dos recursos necessários | Cuba<br>Honduras | Brasil<br>Paraguai | |
| menos do que 50% dos recursos necessários | Argentina<br>Chile<br>Colômbia<br>Rep. Dominicana<br>El Salvador<br>Haiti<br>Jamaica | México<br>Peru<br>Venezuela | Costa Rica |

Financiamento Vulneráveis

Água - URBANO

| Suficiência de Recursos | Não existem medidas | Existem medidas, mas não são aplicadas constantemente | Existem medidas e são aplicadas constantemente |
|---|---|---|---|
| mais do que 75% dos recursos necessários | Argentina<br>Chile<br>Colômbia<br>Haiti<br>Panamá | Paraguai<br>Peru | |
| entre 50% e 75% dos recursos necessários | Cuba<br>Rep. Dominicana | Brasil<br>Venezuela | Costa Rica |
| menos do que 50% dos recursos necessários | Honduras<br>Jamaica<br>Uruguai | México | |

Financiamento Vulneráveis

# Joint evaluation: access data x institutional aspects

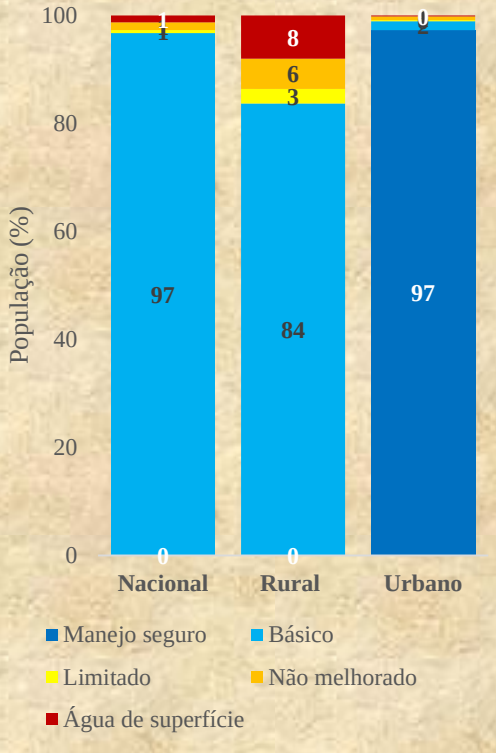
Água Urbano - Gerido de Forma Segura

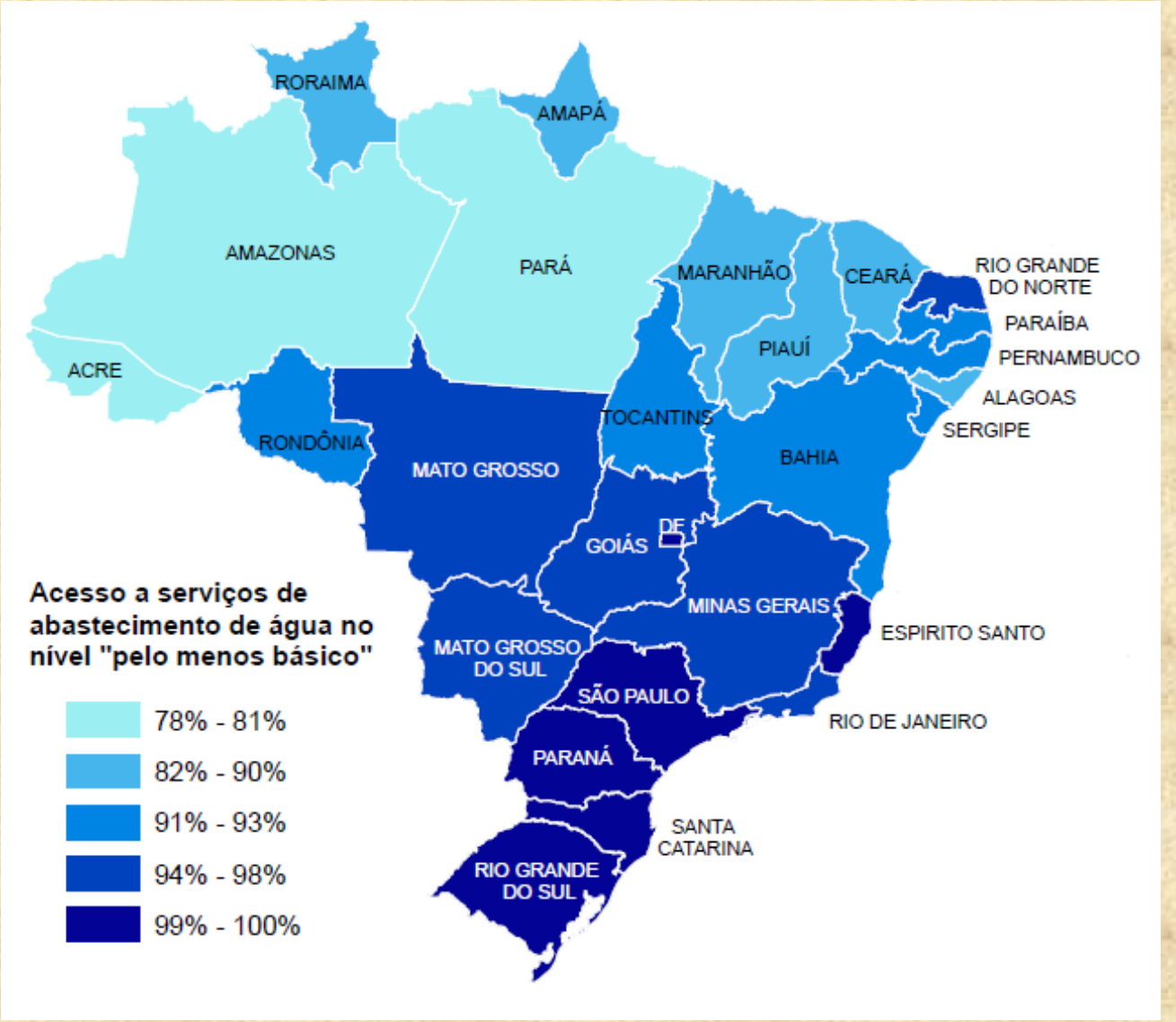
| | | Nível de Participação | | | | Existência de Plano | | | | Suficiência de Recursos | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 98<br>97<br>94 | Argentina / Chile<br>Brasil<br>Uruguai | Chile | Argentina<br>Brasil<br>Uruguai | | | Uruguai | Argentina<br>Brasil | Chile | | | Brasil | Argentina / Chil<br><br>Uruguai |
| 85<br>81<br>77 | Equador<br>Colômbia<br>El Salvador | El Salvador | Colômbia | Equador | | Equador<br>El Salvador | Colômbia | | | | | Colômbia |
| 58 | Peru | | Peru | | | | Peru | | | | Peru | |
| | | Baixo | Moderado | Alto | | Não possuem planos | Acordados mas não suficientemente implementados | Planos Acordados e utilizados | | menos do que 50% dos recursos necessários | entre 50% e 75% dos recursos necessários | mais do que 75% dos recursos necessários |

# CASE STUDIES

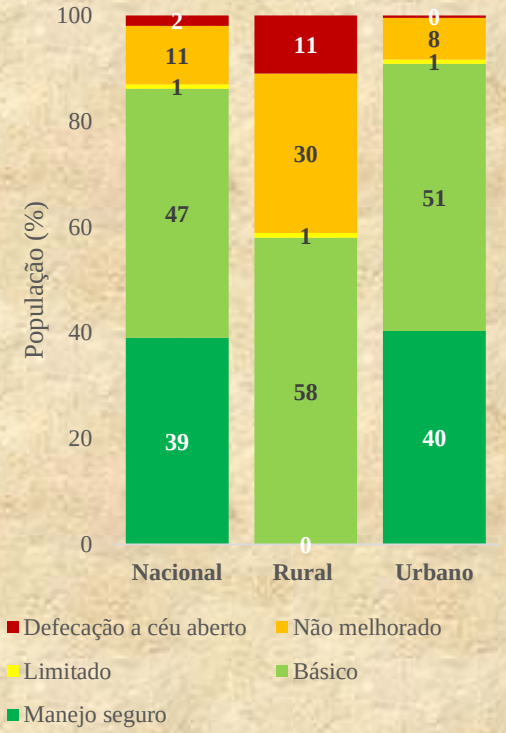
- *Colombia* (Andean countries);
- *Mexico* (North and Central America);
- *Brazil* (Southern Cone);
- *Dominican Republic* (Caribbean).

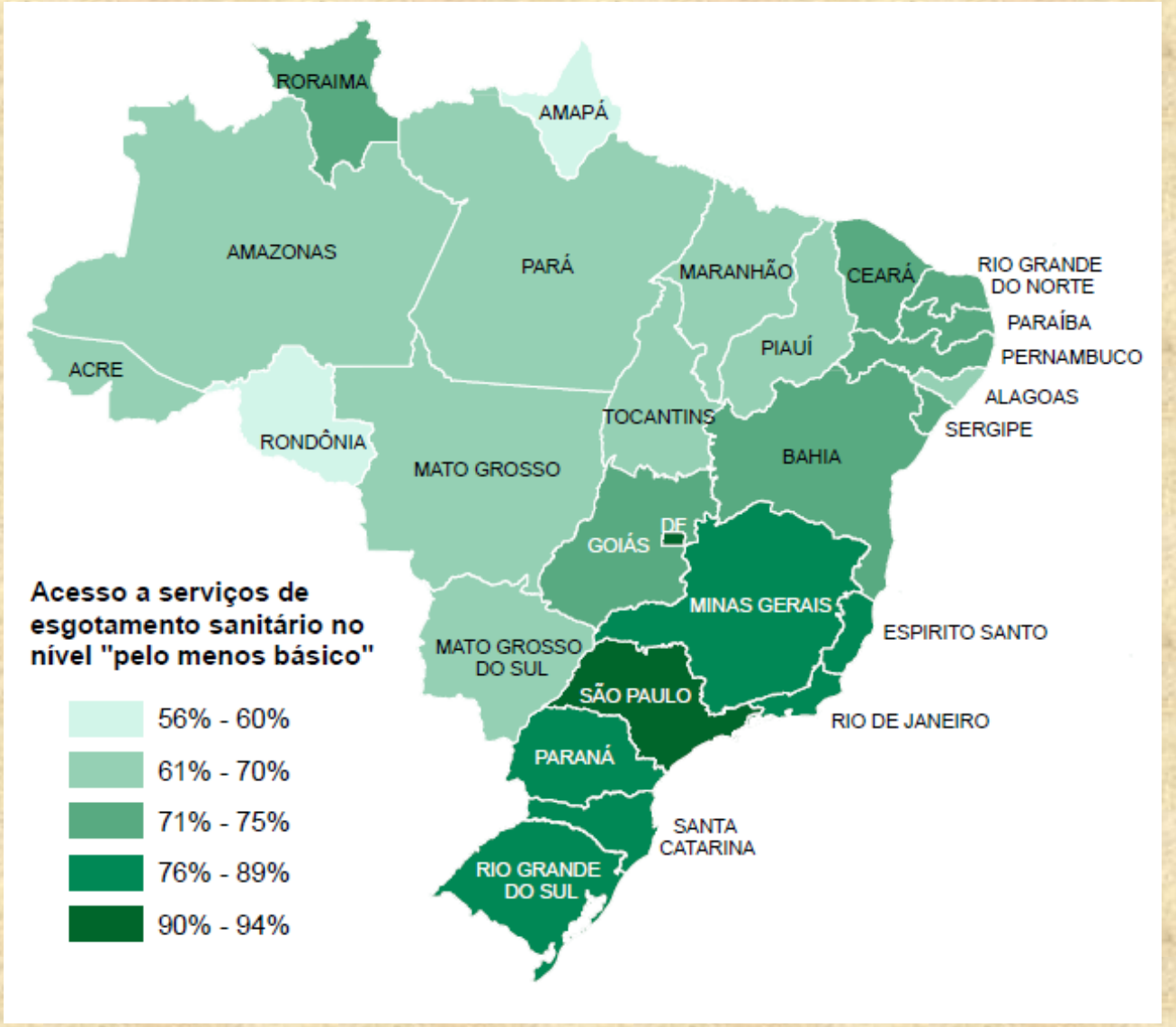
# CASE STUDY - BRAZIL



# CASE STUDY - BRAZIL



# FINAL CONSIDERATIONS

The report advanced in many of the recommendations and issues raised by the ***"Task Force on monitoring Inequalities for the 2030 Sustainable Development Agenda".*** More specifically:

1) Explicit incorporation of the *human rights framework* in the analysis of the access to WASH services and facilities.

2) Use of *different methods of analysis of inequalities,* including a new methodology regarding the evaluation of the Access to Water and Sanitation Adjusted by Inequality

3) New strategies to approach the *Affordability* dimension

4) *Joint analysis* of institutional aspects and access data to WASH services

**THANK YOU!**

**-**

**MUCHAS GRACIAS!**

**-**

**OBRIGADO!**