Fundación BBVA Microfinanzas 15 aniversario

# The need for a **multidimensional** perspective

Understanding households in their multiple dimensions

Doing a deep dive into the well-being of households, evaluating the deficiencies they face. To this end, an internal multidimensional poverty index has been created

Shortfalls

Incidence of deprivation
Total households with deprivations, by dimension

Education   **Health**   **Housing**

IIPM
Índice Interno de Pobreza Multidimensional
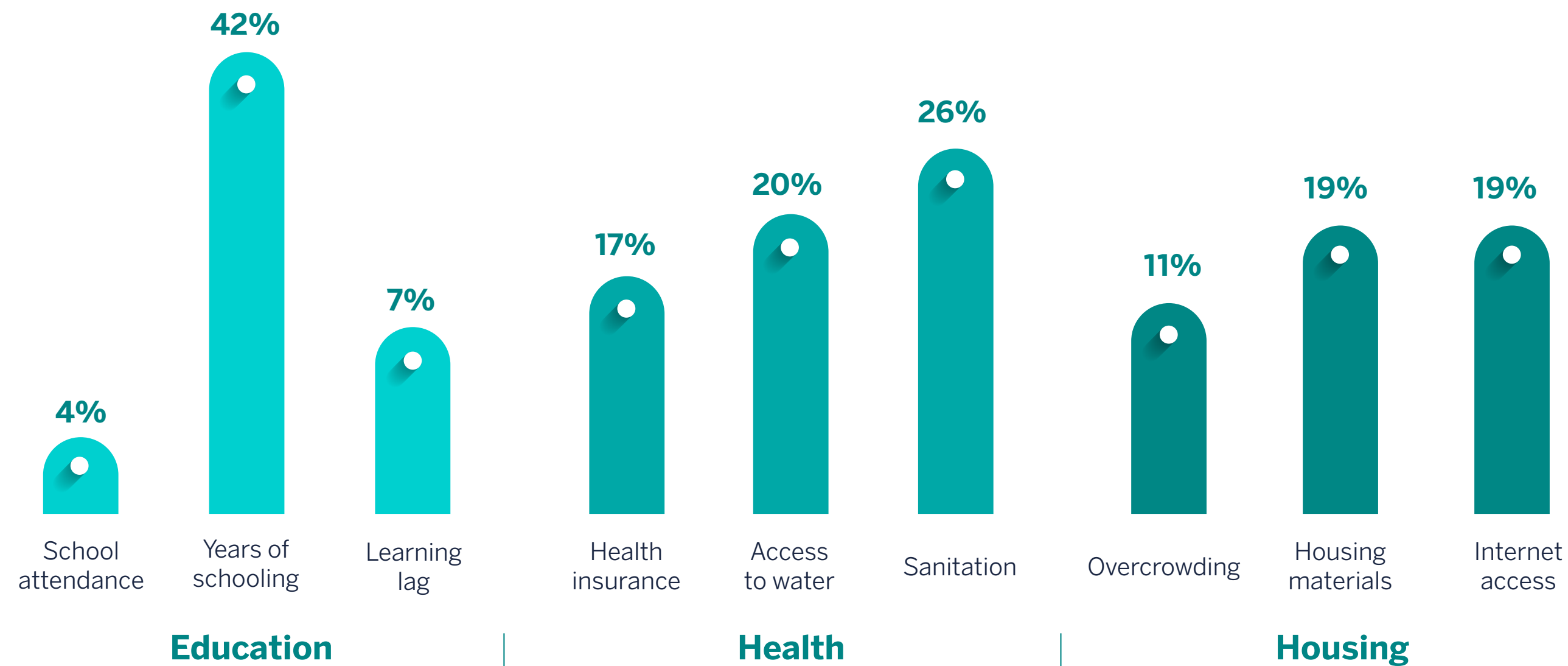
Internal multidimensional poverty index
Sophia Oxford & BBVAMF

Poverty cutoff
33.33%

A client is classified as poor if they live in a household with shortfalls in 33.33% of the indicators

IMPI-FUN	0.099
Incidence (H,%)	24.2%
Intensity (A,%)	41.0%

24% of households are multidimensionally poor

Characteristics of poor households

The results show that, in all entities, households in a situation of poverty are generally:

Rural

Greater probability of living in rural environments, in Colombia, Peru and the Dominican Republic

Household size/children
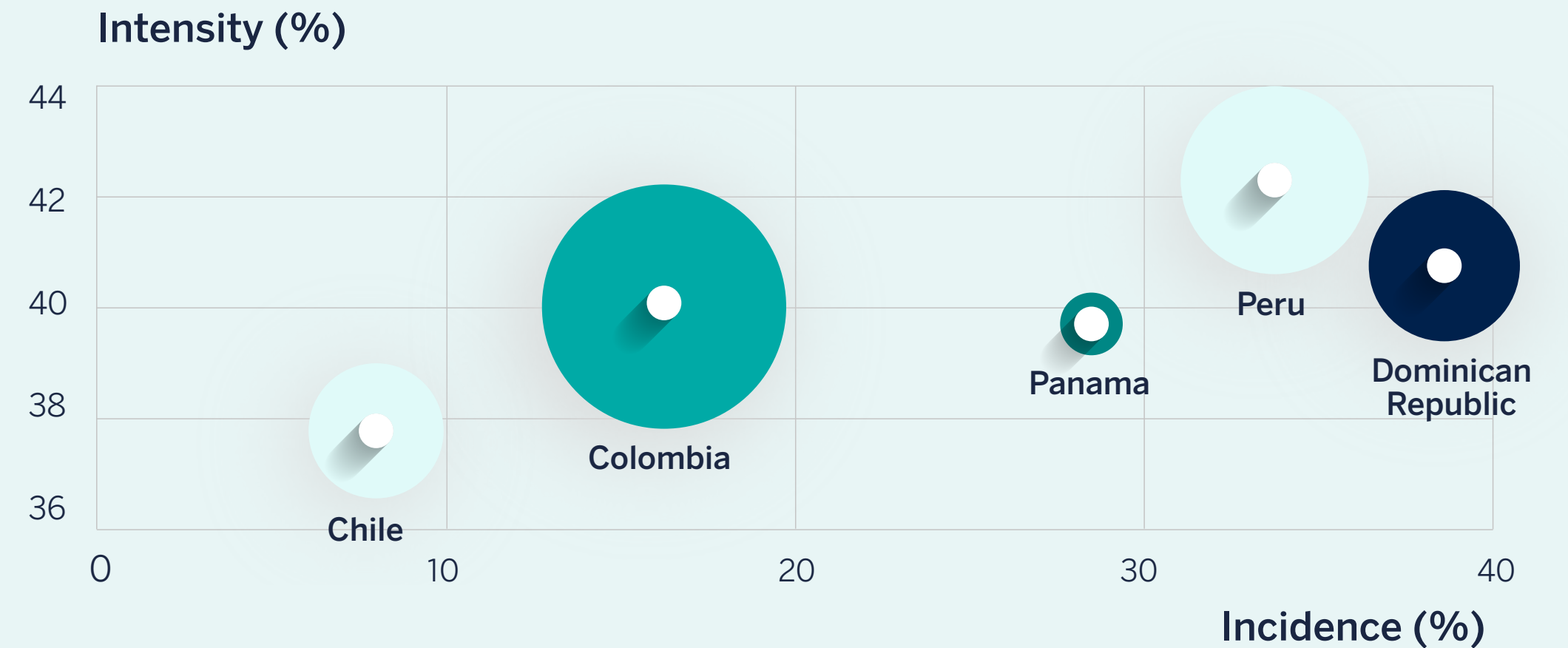
They have larger household sizes and dependent children

Income

They have lower incomes: 64% of non-poor people's revenues

Incidence & intensity of multidimensional poverty, by country

Total poor & deprived households, by country

Intensity (%)

Incidence (%)

* Note: The size of the circle represents the number of clients per country as of December 2021. Incidence shows the number of people with shortfalls. Intensity is the number of deprivations suffered in a poor household, compared to the total number of households in this situation.

At least a third of Financiera Confianza and Banco Adopem clients live in multidimensional poverty. These two institutions account for 47% of the total client portfolio, and 65% of clients in poverty in that portfolio.

IMPI, per country
Peru and Domincan Republic have the deepest multidimensional poverty

3

The need for a multidimensional perspective

Multidimensional Poverty Indices (MPI) can provide a broader understanding of the nature of that poverty, complementing monetary measures: they show who is poor and in what way ,,

The pandemic caused by COVID-19 has reversed the progress achieved in the previous years in reducing monetary poverty because of the harsh recession, the drop in employment and in working incomes. Monetary poverty identifies the poor indirectly by comparing their incomes with the monetary cost of buying a basket of food and non-food goods above or below an established minimum threshold. Our traditional measurements have enabled us to categorize our clients using these criteria and associate the latter with the performance of their businesses.

However, to get a more precise picture, we need to go beyond this threshold and dig more deeply into entrepreneurs' standards of living, assessing the likely shortfalls they also have to cope with at home.

01 BBVAMF's Microfinance Entities[1]

Entity	Country	% clients
Bancamía (BA)	Colombia	39%
Financiera Confianza (FC)	Peru	28%
Banco Adopem (AD)	Dominican Republic	18%
Fondo Esperanza (FE)	Chile	13%
Microserfin (MS)	Panama	2%

[1] To build the aggregate index, the results of each country have been incorporated prorating each entity by its client numbers. The distribution is based on figures at the end of November 2021.

Poor people generally characterize poverty as the experience of simultaneous deprivations rather than solely that of insufficient income. Multidimensional Poverty Indices (MPIs), based on the Alkire-Foster methodology, can provide a broader understanding of the nature of poverty, complementing that of unidimensional monetary measures. An MPI reveals who is poor and in what way they are poor, providing relevant information to identify them, as well as the problems that keep them in poverty. Four of the five countries where BBVA Microfinance Foun-

dation (BBVAMF) is present have national MPIs to track multidimensional poverty and inform public policy. The exception is Peru, although the process of designing such a metric appears to have started.

BBVAMF, together with its five entities in Latin America and SOPHIA Oxford, has led a study to assess multidimensional poverty in its client portfolio, using the Alkire-Foster methodology.

/ This multidimensional view brings us closer to the structural components of poverty

/ The study of multidimensional poverty will serve to improve how we design and target our products and services, and thus improve the lives of our clients

/ The definition of internal multidimensional poverty is based on nine indicators that capture three dimensions of poverty: education, health, and housing

02 Dimensions and indicators used to define multidimensional poverty

Dimension	Indicator	Weight (%)
Education	School attendance	11.11%
	Years of schooling	11.11%
	Learning lag	11.11%
Health	Health insurance	11.11%
	Access to water	11.11%
	Sanitation	11.11%
Housing	Overcrowding	11.11%
	Housing materials (floor, walls & roof)	11.11%
	Internet access	11.11%

The main purpose of this exercise was to provide BBVAMF and each entity with relevant information to improve the design and targeting of our products and services and hence enhance their impact in improving the lives of entrepreneurs. Multidimensional poverty was defined based on nine indicators that capture three dimensions of poverty, Education, Health and Housing (see Table 2). These three dimensions are included in practically all existing national MPIs, although sometimes under slightly different names. Based on the universe of indicators included in national MPIs of the countries where BBVAMF operates, as well as the goal of keeping the length of the questionnaire to under 30 minutes, the study selected indicators that focused on basic needs and that could provide useful information for actionable solutions (i.e. to improve the microfinance institutions' value offering)[2].

Deprivation cutoffs, on the other hand, were defined taking into consideration the specific conditions of each country, so that each entity would be able to identify the most vulnerable clients in its own portfolio[3]. The selection of country-specific deprivation cutoffs hinders comparisons of poverty or deprivation levels across entities[4], but allows each entity to obtain more relevant information to guide its strategy.

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[2] The employment dimension is also included in the national MPIs of the five countries where BBVAMF operates. We opted not to include it in our measure because it is an area already directly covered by the microfinance institutions, since entrepreneurship is a response to lack of employment opportunities. Also, it entailed adding several questions to the questionnaire. On the other hand, although Internet access is only included in the national measures of Dominican Republic and Panama, we chose to include it in our measure given its increasing importance, particularly in the context of the COVID-19 pandemic.

[3] Although entities selected deprivation cutoffs for assessing poverty among their clients independently, there was a considerable overlap between their selections. For example, all five entities selected the same deprivation cutoff for school attendance and access to Internet. For eight of the nine indicators, at least three of the five entities selected the same cutoff. The Methodology (appendix) describes this overlap between the deprivation cutoffs selected in more detail.

[4] Comparisons are difficult because one client in exactly the same circumstances might be identified as poor (or deprived in a given indicator) if served by one entity, and as non-poor if served by another entity.

This report presents an overall analysis of multidimensional poverty in BBVAMF's client portfolio[5].

The methodology for the multidimensional poverty index has been adopted by the United Nations as the standard, and is accepted in nearly worldwide, particularly in those countries where the Foundation operates. This methodology was developed by Oxford Poverty & Human Development Initiative (OPHI).

In 2021, BBVAMF went into partnership with SOPHIA Oxford, a body linked to Oxford University and OPHI, that works with the private sector. The aim was to build a measurement framework that would enable the Foundation and its institutions to diagnose certain dimensions of multidimensional poverty faced by our entrepreneurs and to track their progress over time.

BBVAMF is the first private institution to design this indicator for its clients, enabling us not only to better understand their living conditions, but also to design value propositions with more information to improve those living conditions for them and their families.

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5 Aggregate estimates were obtained using sampling weights that take into account the size of each entity's sample together with the number of clients served by each entity.
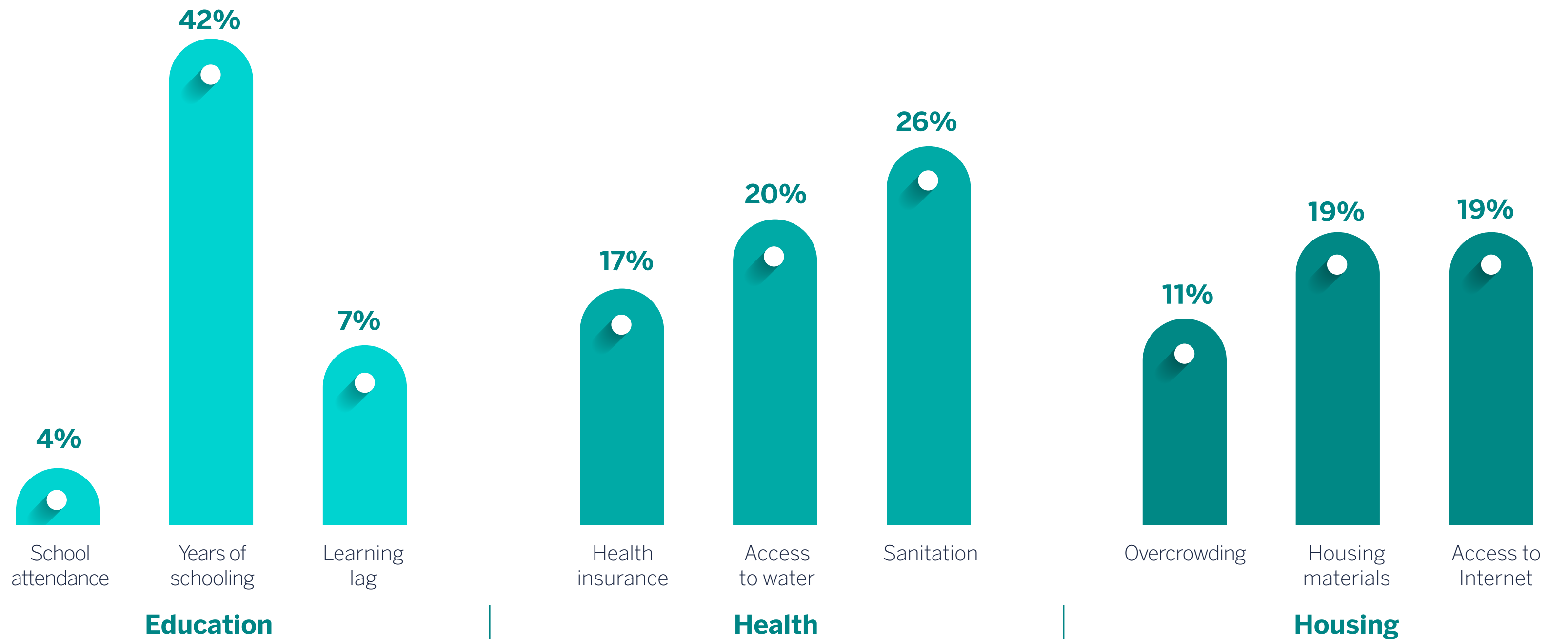
7

Levels of deprivation

The deprivations most commonly suffered by clients are years of schooling, sanitation, and access to water „"

In the Entrepreneur Portfolio

Firstly, we wanted to discover the percentage of clients that live in a household that is deprived in terms of one or several of the indicators, and to break down that distribution by microfinance institution. We saw that the deprivations most commonly suffered by clients are years of schooling, sanitation, and access to water. On the other hand, there are relatively few clients living in households deprived in terms of school attendance and educational lag.

03 Incidence of deprivations
Percentage of deprived households

School attendance	Years of schooling	Learning lag	Health insurance	Access to water	Sanitation	Overcrowding	Housing materials	Access to Internet
4%	42%	7%	17%	20%	26%	11%	19%	19%

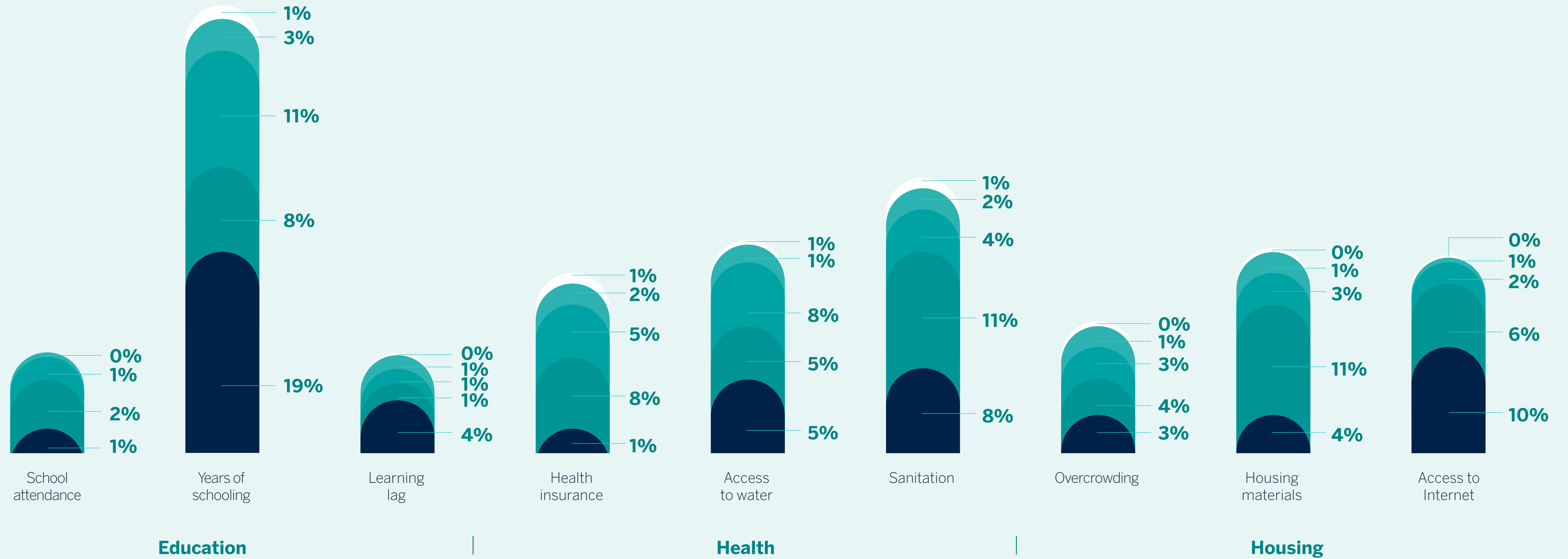**Education** | **Health** | **Housing**

04

Incidence of deprivations, broken down by country
Percentage of deprived clients

Legend:
- Microserfin
- Fondo Esperanza
- Banco Adopem
- Financiera Confianza
- Bancamía

Education

School attendance
- 0%
- 1%
- 2%
- 1%

Years of schooling
- 1%
- 3%
- 11%
- 8%
- 19%

Learning lag
- 0%
- 1%
- 1%
- 1%
- 4%

Health

Health insurance
- 1%
- 2%
- 5%
- 8%
- 1%

Access to water
- 1%
- 1%
- 8%
- 5%
- 5%

Sanitation
- 1%
- 2%
- 4%
- 11%
- 8%

Housing

Overcrowding
- 0%
- 1%
- 3%
- 4%
- 3%

Housing materials
- 0%
- 1%
- 3%
- 11%
- 4%

Access to Internet
- 0%
- 1%
- 2%
- 6%
- 10%

As is logical, Bancamia, Financiera Confianza and Banco Adopem, which together represent 85% of the total portfolio, also account for the vast majority of deprived clients. That said, their share of deprived clients is not necessarily proportional to their share of clients and varies across indicators.

In 42% of our clients' homes at least one adult has not attended school for the requisite minimum number of years. Most of these adults are over 40 years old „"
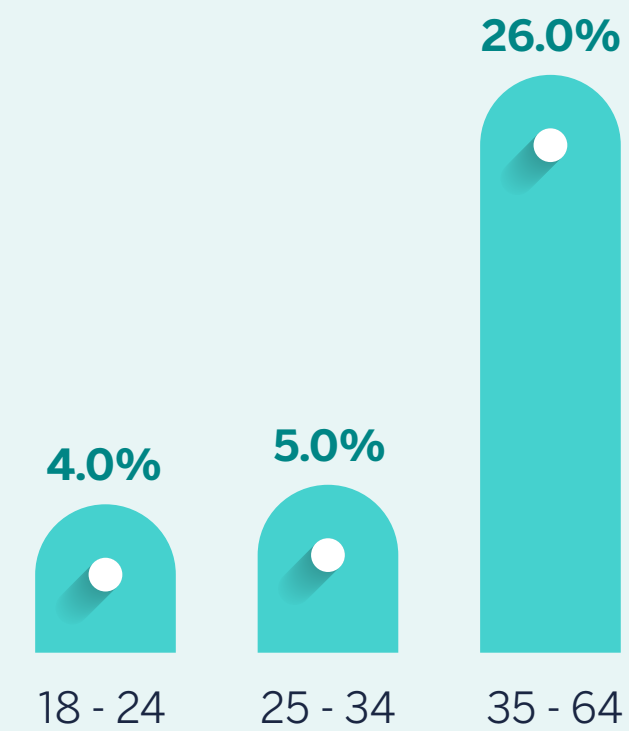
05 Deprivations in years of schooling
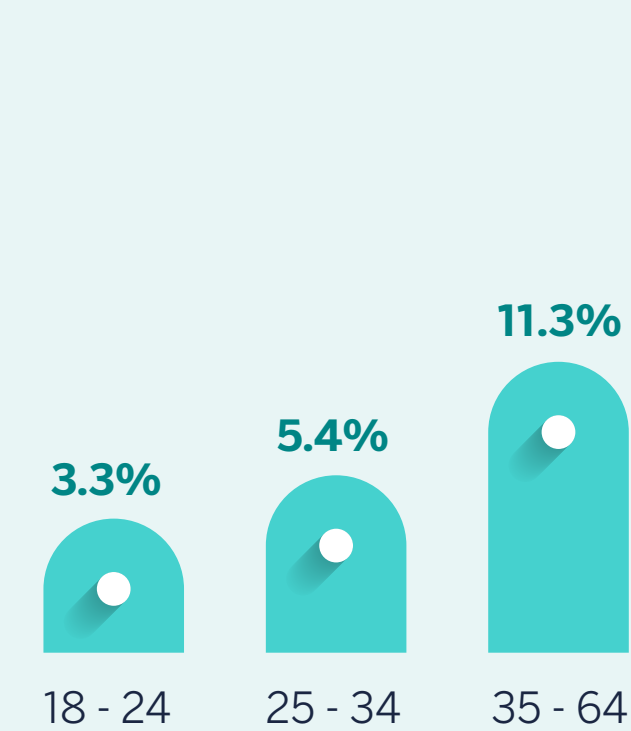Percentage of adults by age groups

Years of schooling

Around 42% clients live in a household where there is at least one adult who did not attend school for the minimum years required for his/her age group[6]. Most of these clients are served by Bancamia (19%), followed by Banco Adopem (11%) and Financiera Confianza (8%). These three entities serve 90% of the clients deprived in this indicator.

The clients suffering this deprivation are mostly older than 40. The breakdown shows the deprivations in the countries where it is most acute.

BA - Colombia

18 - 24	25 - 34	35 - 64
4.0%	5.0%	26.0%

FC - Peru

18 - 24	25 - 34	35 - 64
3.3%	5.4%	11.3%

AD - Dominican Rep.

18 - 29	30 - 39	40 - 59	60 - 69	>70
13.0%	9.0%	15.0%	3.0%	1.0%

MS - Panama

18 - 24	25 - 34	35 - 64
4.0%	5.0%	12.0%

FE - Chile

18 - 29	30 - 39	40 - 59	60 - 69	>70
3.8%	4.4%	2.6%	1.7%	1.7%

[6] According to the deprivation cutoff selected for the country they live in.

06 Deprivations in sanitation
Percentage of homes, by type of sanitation

BA - Colombia

11.0%	**3.1%**	**2.0%**	**0.6%**	**1.4%**	**2.1%**
Toilet connected to sewage system	Toilet connected to shared septic tank	Unconnected toilet	Latrine with septic tank	Latrine without septic tank	No sanitation facilities

AD - Dominican Rep.

4.9%	**5.7%**	**4.2%**	**4.0%**	**2.8%**	**0.3%**
Toilet connected to sewage system	Toilet connected to shared septic tank	Unconnected toilet	Latrine with septic tank	Latrine without septic tank	No sanitation facilities

FC - Peru

15.9%	**3.1%**	**4.3%**	**4.8%**	**8.5%**	**2.6%**
Toilet connected to sewage system	Toilet connected to shared septic tank	Unconnected toilet	Latrine with septic tank	Latrine without septic tank	No sanitation facilities

MS - Panama

3.0%	**6.6%**	**0.8%**	**2.2%**	**16.0%**	**0.3%**
Toilet connected to sewage system	Toilet connected to shared septic tank	Unconnected toilet	Latrine with septic tank	Latrine without septic tank	No sanitation facilities

Sanitation

More than a quarter of clients live in a household without adequate sanitation[7]. Financiera Confianza serves most of these clients (accounting for 11% out of the 26%). Close to 18% of all clients share their toilet facility with other households. The breakdown shows the deprivations in the countries where it is most acute.

[7] According to the deprivation cutoff selected for the country they live in.
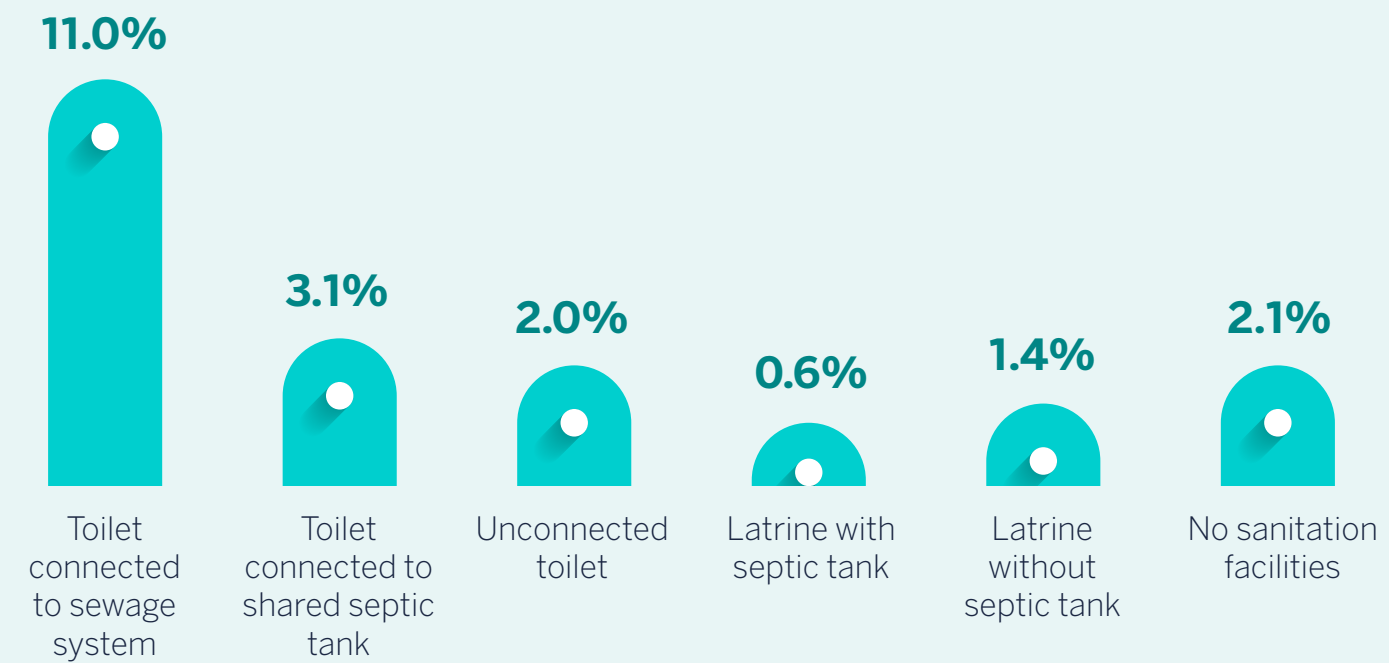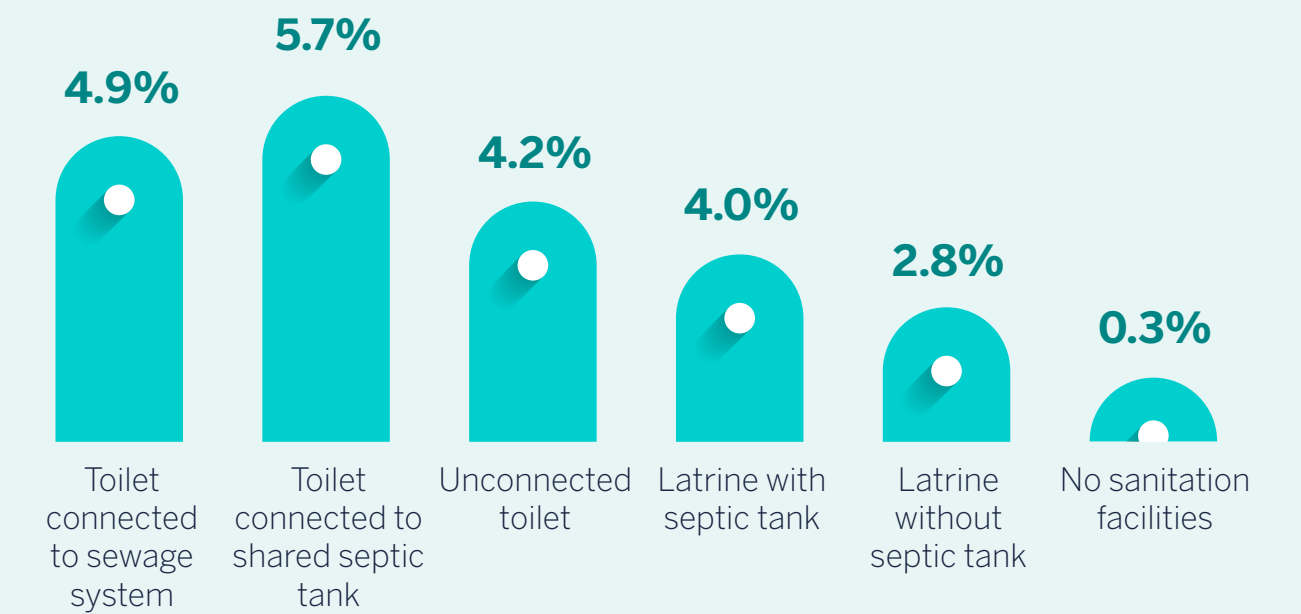
07 Deprivations in access to water

Percentage of households lacking water, by type of water source

BA - Colombia

Piped water outside home	Public standpipe	Covered well	Open well	River, creek, spring	Rainwater collection	Water tanker truck or watering hole
2.6%	0.7%	1.1%	2.5%	5.3%	1.3%	0.4%

10%

AD - Dominican Rep.

| Piped water outside home	Public standpipe	Covered well	Open well	River, creek, spring	Rainwater collection	Water tanker truck or watering hole	Bottled water
32.3%	1.8%	4.8%	0.7%	0.3%	0.4%	3.6%	0.4%

5%

Access to water

One in every 5 clients lives in a household without adequate access to water[8]. Banco Adopem serves most of these clients (8% out of 20%). Close to 10% of Bancamia clients live in a household without access to piped water or a covered well. This share amounts to 8% among Financiera Confianza clients and 5% among clients of Banco Adopem. The breakdown shows the deprivations in the countries where it is most acute.

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[8] According to the deprivation cutoff selected for the country they live in.
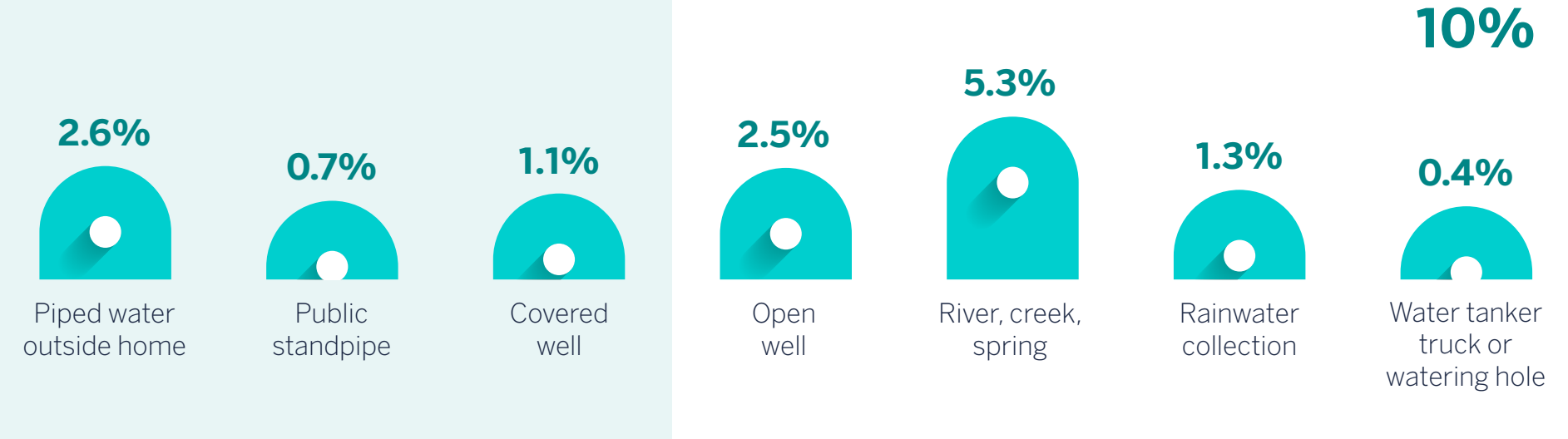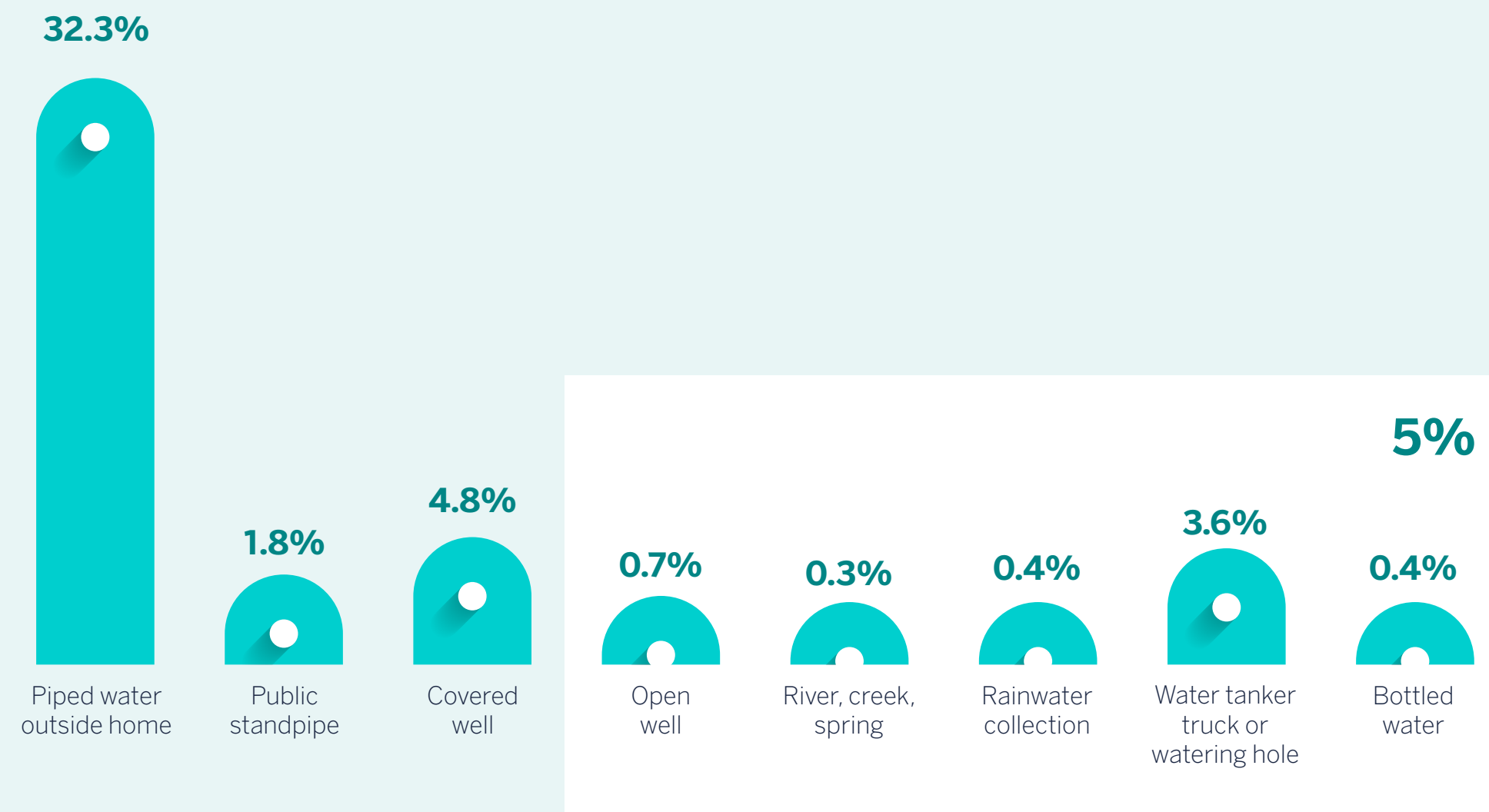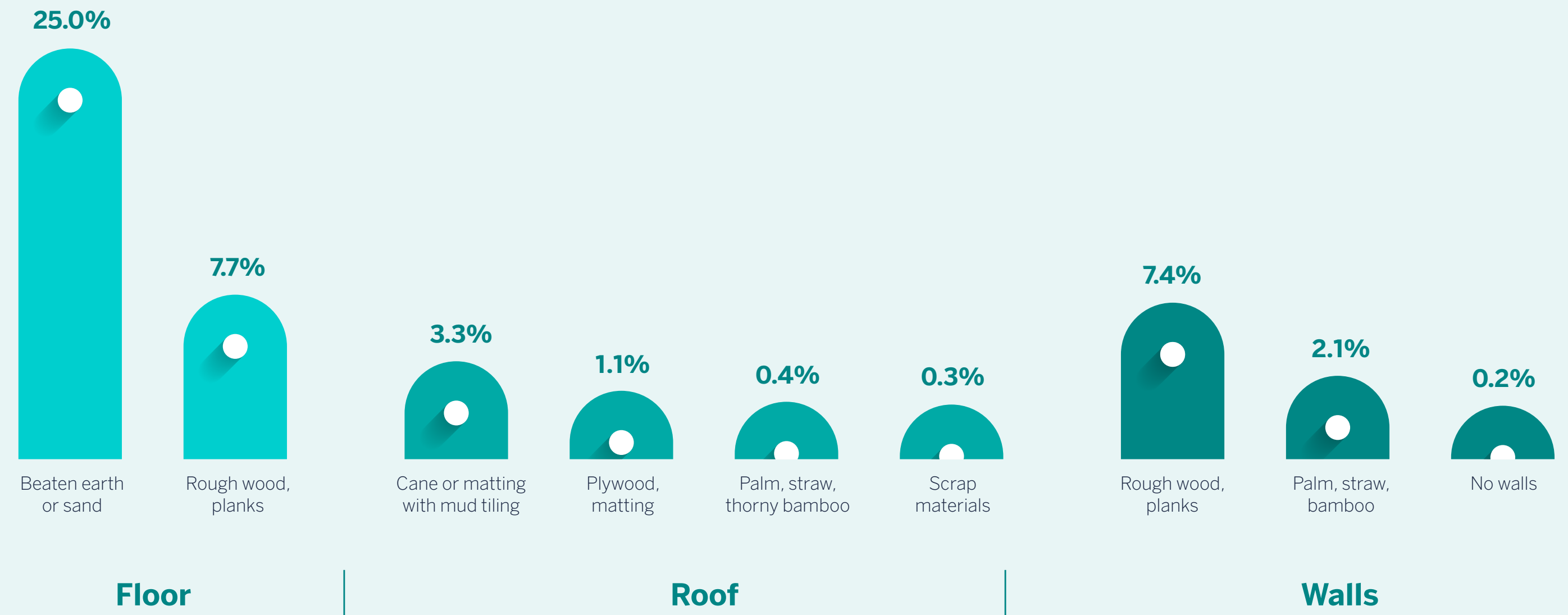
08 Deprivations in housing materials
Households, by construction material

Housing materials

19% of clients live in a household with floor, walls or roof made of rudimentary materials. Financiera Confianza serves most of these clients. One in every 4 Financiera Confianza clients lives in a dwelling with a floor of earth or sand. The breakdown shows the deprivations Peru.

FC - Peru

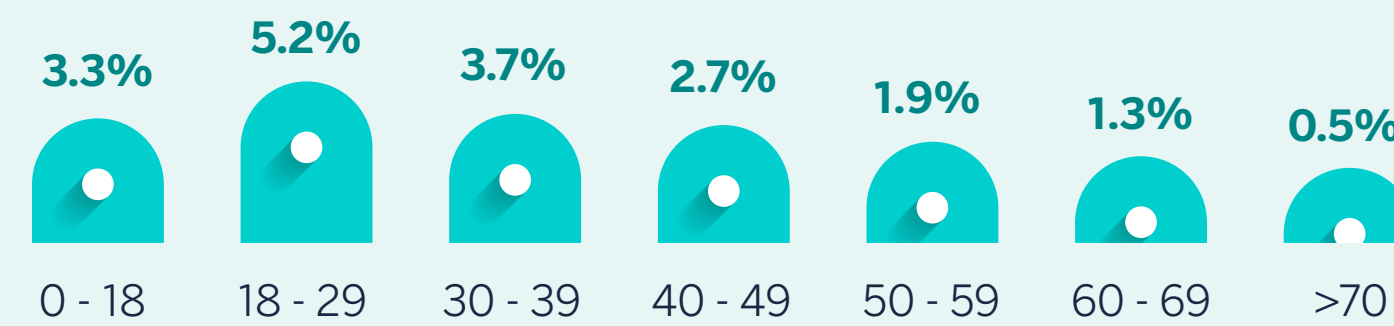|								
25.0%	7.7%	3.3%	1.1%	0.4%	0.3%	7.4%	2.1%	0.2%
Beaten earth or sand	Rough wood, planks	Cane or matting with mud tiling	Plywood, matting	Palm, straw, thorny bamboo	Scrap materials	Rough wood, planks	Palm, straw, bamboo	No walls

Floor   **Roof**   **Walls**

09

09 Deprivations in health insurance

Percentage of the client population
without Health insurance, by age group

FC - Peru

3.3%	5.2%	3.7%	2.7%	1.9%	1.3%	0.5%
0 - 18	18 - 29	30 - 39	40 - 49	50 - 59	60 - 69	>70

AD - Dominican Rep.

5.8%	4.8%	2.5%	2.7%	0.7%	0.2%
0 - 17	18 - 29	30 - 39	40 - 59	60 - 69	>70

MS - Panama

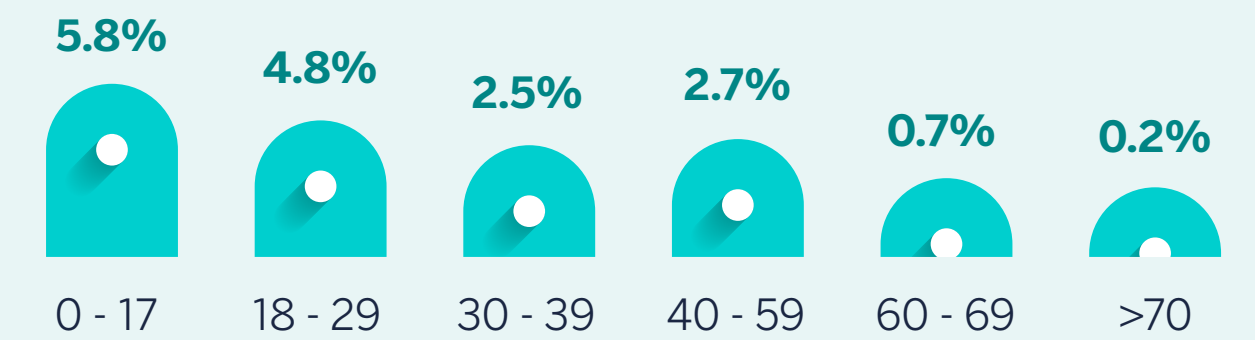| 10.0%	9.0%	7.0%	12.0%	3.0%	1.0%
0 - 17	18 - 29	30 - 39	40 - 59	60 - 69	>70

Health insurance

17% of clients live in a household where there is at least one person without health insurance (public or private). However, this share conceals major disparities across entities. The proportion of our clients experiencing this type of deprivation ranges from 3% among clients served by Bancamia, in Colombia, to 56% among clients served by Microserfin, in Panama. The breakdown shows the deprivations in the countries where it is most acute.
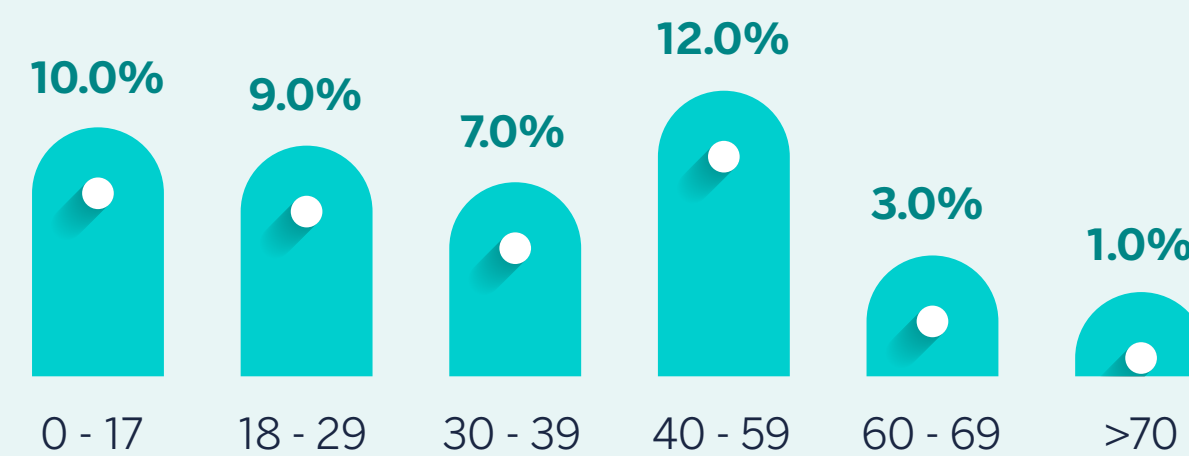
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10 Reasons for not having Internet access
Percentage of households

BA - Colombia

14.3%
5.4%
3.2%
1.9%
0.1%
0.1%

Cost | No/poor coverage | No devices | Don't know how to use it | Security & privacy | Other

FC - Peru

8.8%
5.4%
5.5%
1.9%
0.6%

Cost | No/poor coverage | No devices | Don't know how to use it | Security & privacy

MS - Panama

9%
6%
3%
1%
1%

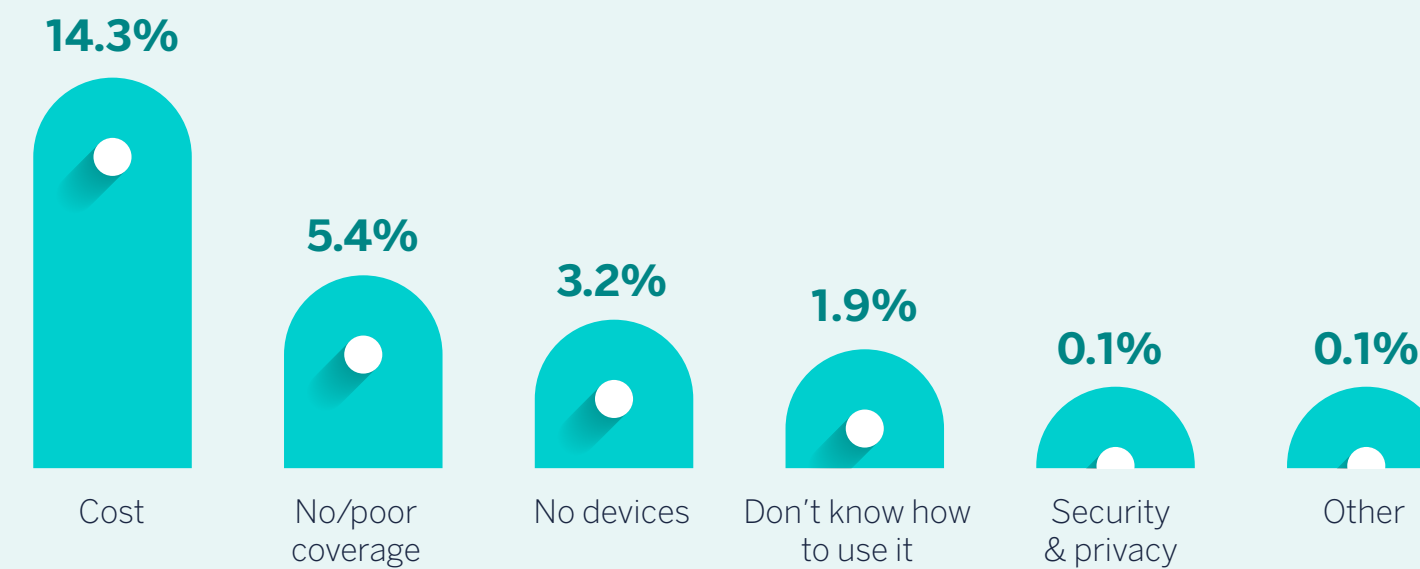Cost | No/poor coverage | No devices | Don't know how to use it | Security & privacy

Access to Internet

19% of clients live in a household with no access to Internet. As with health insurance, the situation varies greatly across entities. The proportion of clients experiencing this deprivation ranges from 4% among clients served by Fondo Esperanza, in Chile, to 25% among clients served by Bancamia, in Colombia. The breakdown shows the deprivations in the countries where it is most acute.
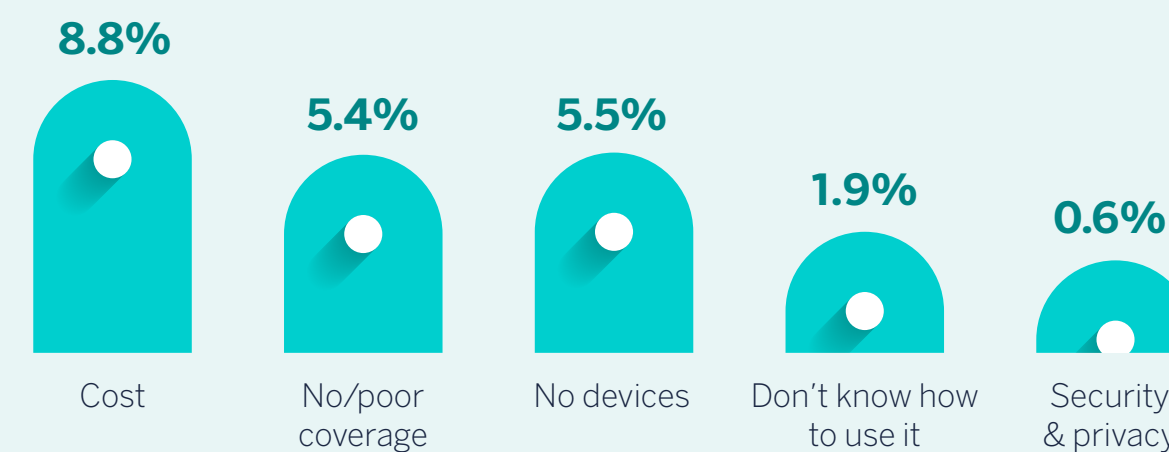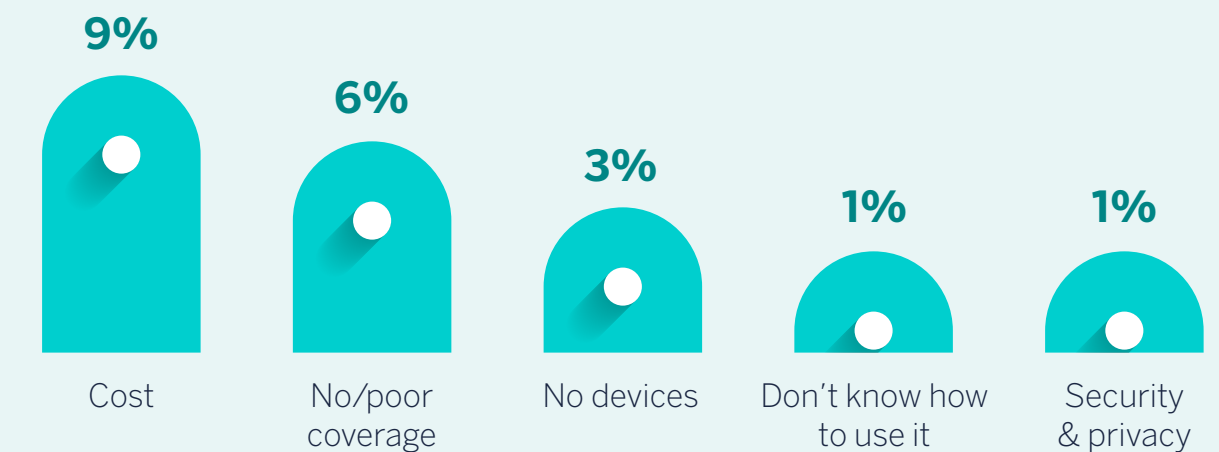
Breakdown by microfinance institution

11 Deprivation profile of Bancamía clients
Percentage of deprived households
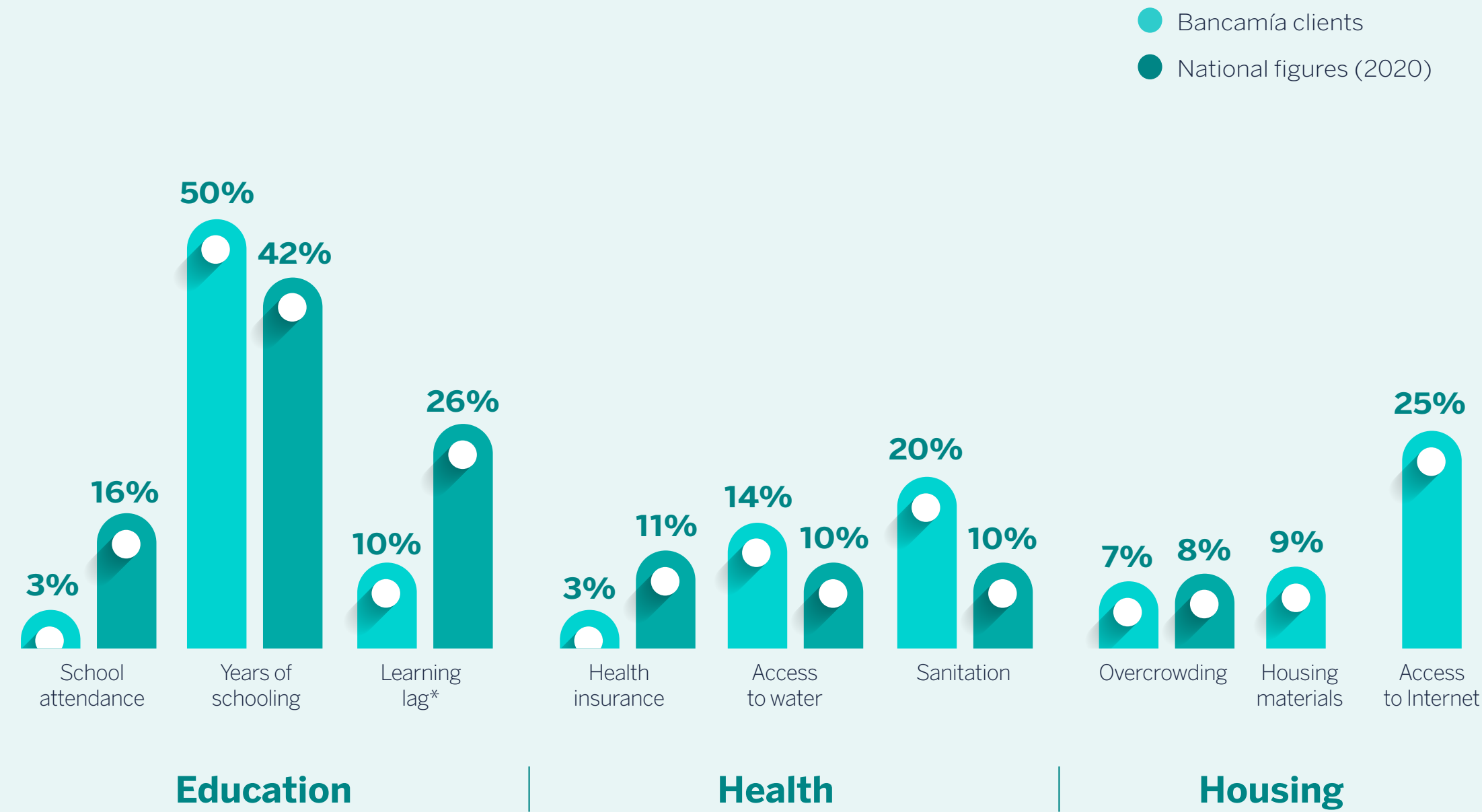
- ● Bancamía clients
- ● National figures (2020)

	Education			Health			Housing		
Bancamía clients	3% (School attendance), 50% (Years of schooling), 10% (Learning lag*)			3% (Health insurance), 14% (Access to water), 20% (Sanitation)			7% (Overcrowding), 9% (Housing materials), 25% (Access to Internet)		
National figures	16%, 42%, 26%			11%, 10%, 10%			8%		

12 Deprivation profile of Financiera Confianza clients
Percentage of deprived households

| Education			Health			Housing		
6% School attendance	29% Years of schooling	4% Learning lag	28% Health insurance	18% Access to water	39% Sanitation	13% Overcrowding	38% Housing materials	22% Access to Internet

*Note: identifies the indicators for which the deprivation cutoff used to assess deprivation among clients matches the deprivation cutoff used by the national statistics body.
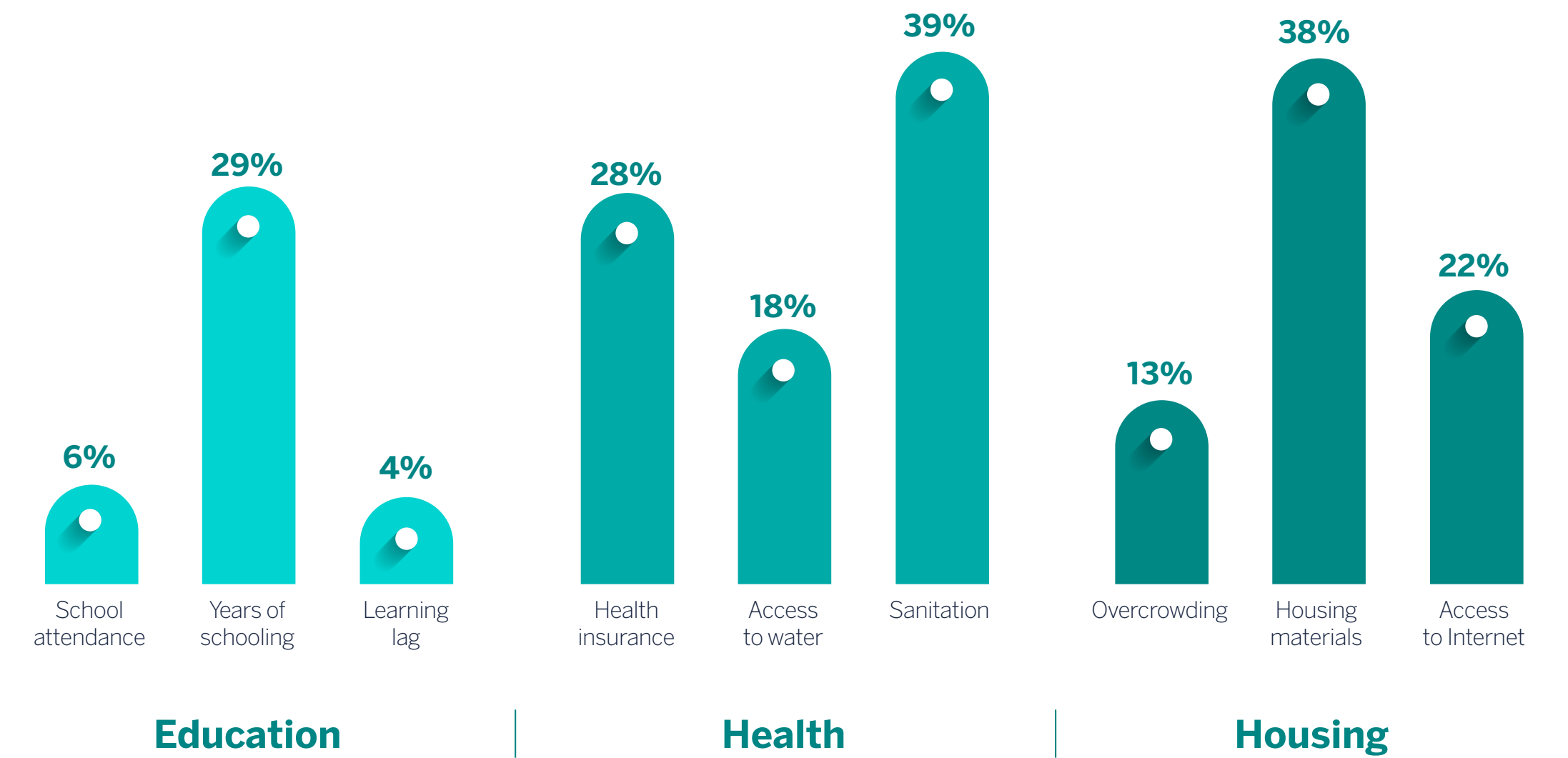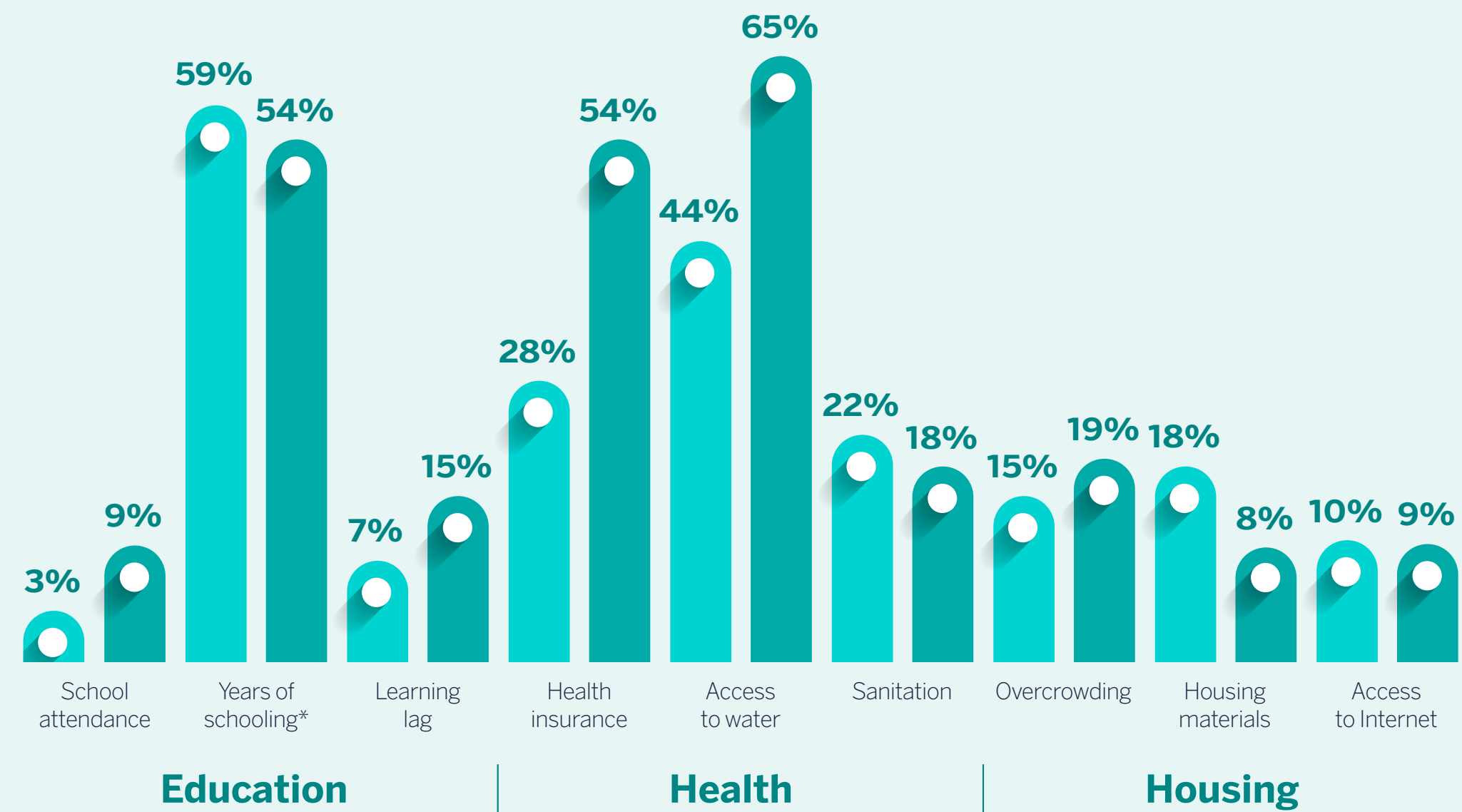
There are no national figures for Peru, because this country does not yet have a national MPI, and Panama, because the levels of deprivation, or headcount rates not covered in the census, were not published.

17

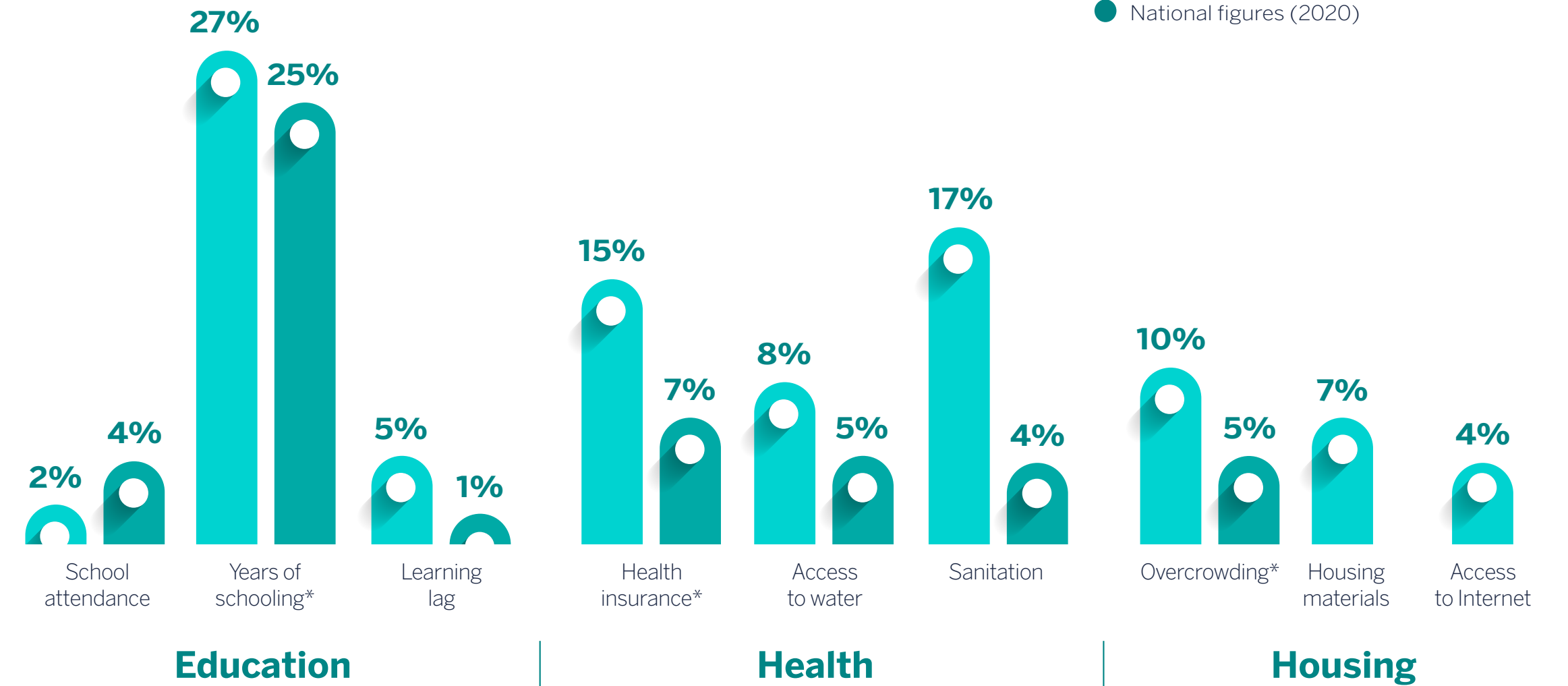## 13 Deprivation profile of Banco Adopem clients

Percentage of deprived households

● Banco Adopem clients
● National figures (2019)

Education			Health			Housing		
School attendance	Years of schooling*	Learning lag	Health insurance	Access to water	Sanitation	Overcrowding	Housing materials	Access to Internet
3% / 9%	59% / 54%	7% / 15%	28% / 54%	44% / 65%	22% / 18%	15% / 19%	18% / 8%	10% / 9%

14 Deprivation profile of Fondo Esperanza clients

Percentage of deprived households

● Fondo Esperanza clients
● National figures (2020)

| Education			Health			Housing		
School attendance	Years of schooling*	Learning lag	Health insurance*	Access to water	Sanitation	Overcrowding*	Housing materials	Access to Internet
2% / 4%	27% / 25%	5% / 1%	15% / 7%	8% / 5%	17% / 4%	10% / 5%	7% / —	— / 4%

* Note: identifies the indicators for which the deprivation cutoff used to assess deprivation among clients matches the deprivation cutoff used by the national statistics body.

18

15 Deprivation profile of Microserfin clients[9]

Percentage of deprived households
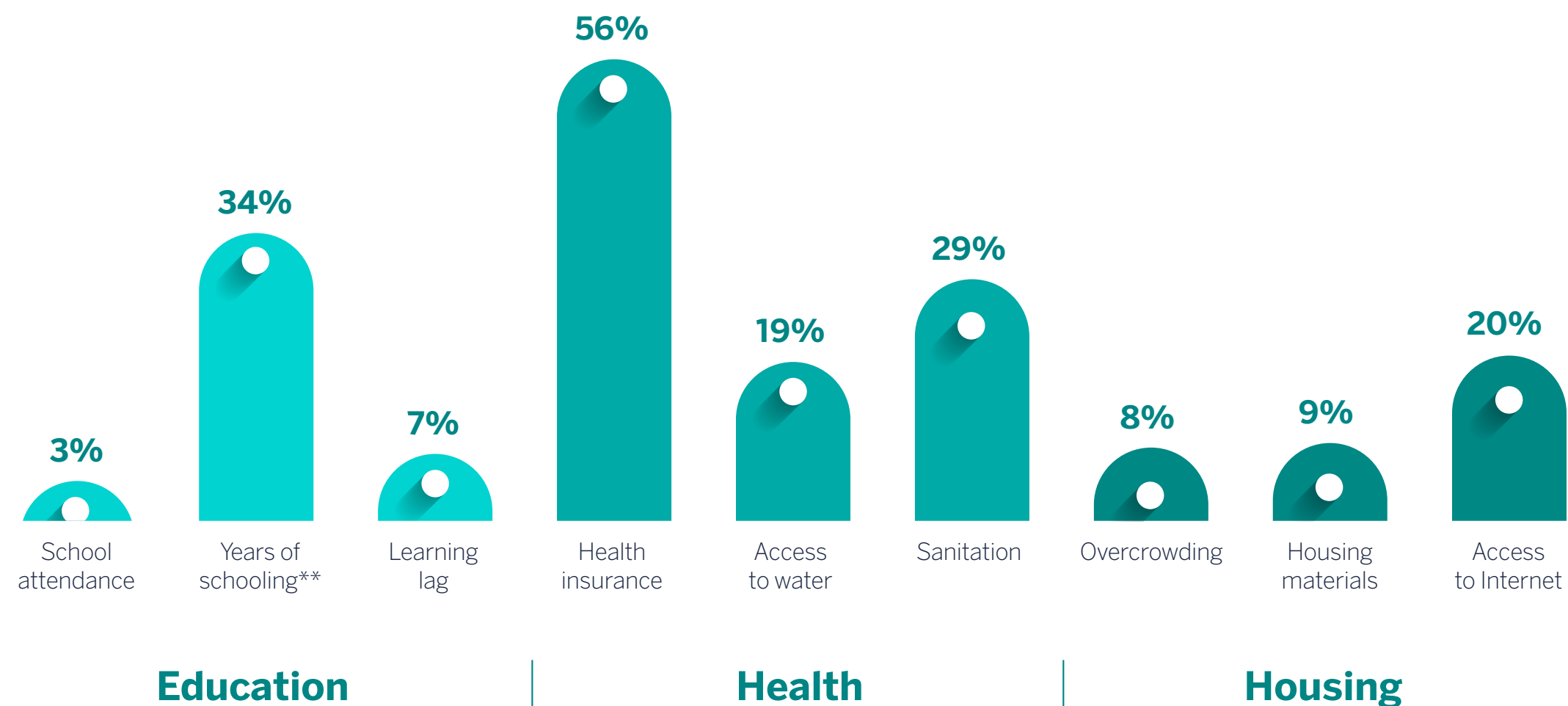
Most of the nine indicators used to capture poverty among clients are also included in the national MPIs of the countries where the microfinance institutions operate, although rarely with exactly the same deprivation cutoffs. This means that comparisons between the incidence of deprivations reported here, and the national figures must be interpreted carefully. The figures below display the levels of deprivation among clients, next to the most recently published national figures, where these are available.

Years of education is one of the most important issues at both national level and among Bancamia clients. In addition to years of schooling, the most common deprivations among Bancamia clients are access to Internet, sanitation and access to water. The most common deprivations suffered by Financiera Confianza clients are sanitation, housing materials, years of schooling, and health insurance.

The most prevalent deprivations among Banco Adopem clients are years of schooling, access to water, health insurance, and sanitation. Data suggests that, of the nine indicators considered in our study, the national figures highlight the same three top deprivations, although in different order: access to water, years of schooling, and health insurance.

The deprivations most frequently suffered by Fondo Esperanza clients are years of schooling, sanitation, health insurance, and over-

crowding. Data suggests that, with the exception of school attendance, the incidence of deprivations among Fondo Esperanza clients is probably higher than among the Chilean population[10].

The deprivations most prevalent among Microserfin households are health insurance, years of schooling, sanitation and access to Internet.

Analyzing the incidence of deprivation indicators alone does not enable us to identify those clients who experience several deprivations simultaneously and are, thus, in a more vulnerable situation. To do so, we move next to an analysis of the MPI itself.

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[9] Panama has not published the proportion of population deprived in each indicator, publishing only the proportion of population that is poor or underprivileged in each indicator. Hence, we have not been able to compare our results with the national figures.

** Identifies the indicators for which the deprivation cutoff used to assess deprivation among clients matches the deprivation cutoff used by the national statistics body.

[10] We cannot say this for sure because of the different deprivation cutoffs. However, since the cutoffs are relatively similar, we suspect that at least part of the differences identified reflect the more vulnerable situation of Fondo Esperanza clients.

IMPI

The rate of multidimensional poverty among our clients is 24% 〞

Clients living in multidimensional poverty suffer deprivations in 41% of our indicators 〞

16 IMPI, Incidence and Intensity

ÍIPM
Índice Interno de Pobreza
Multidimensional

Index	Value	Confidence Interval (95%)	
IMPI	0.099	0.095	0.103
Incidence (H%)	24.2%	23.3%	25.2%
Intensity (A%)	41.0%	40.6%	41.5%

The incidence of multidimensional poverty among clients served by the BBVAMF's microfinance institutions, according to country-specific definitions, is 24.2%. When we take into consideration this estimate's margin of error, we can say with 95% of confidence that the true proportion of clients living in a household in multidimensional poverty lies between 23.3% and 25.2%.

Households living in multidimensional poverty are, on average, deprived in 41.0% of the indicators (equivalent to 3.7 of the 9 indicators). The true value of the intensity of poverty lies between 40.6% and 41.5%, with a confidence of 95%.

The IMPI has a value of 0.099, which means that BBVAMF's clients experience 9.9% of the total deprivations that would be experienced if all clients were deprived in all indicators. The true IMPI value lies between 0.095 and 0.103 with 95% of confidence.

The good news is that more than half of poor clients only have three deprivations, which means they only need to overcome one deprivation to escape poverty.

Over half of poor households suffer only three types of deprivation, so they need to overcome just one of them to escape poverty 🙶

17 Distribution of the intensity of poverty

6 deprivations
4%

7-8 deprivations
1%

5 deprivations
13%

3 deprivations
54%

4 deprivations
28%
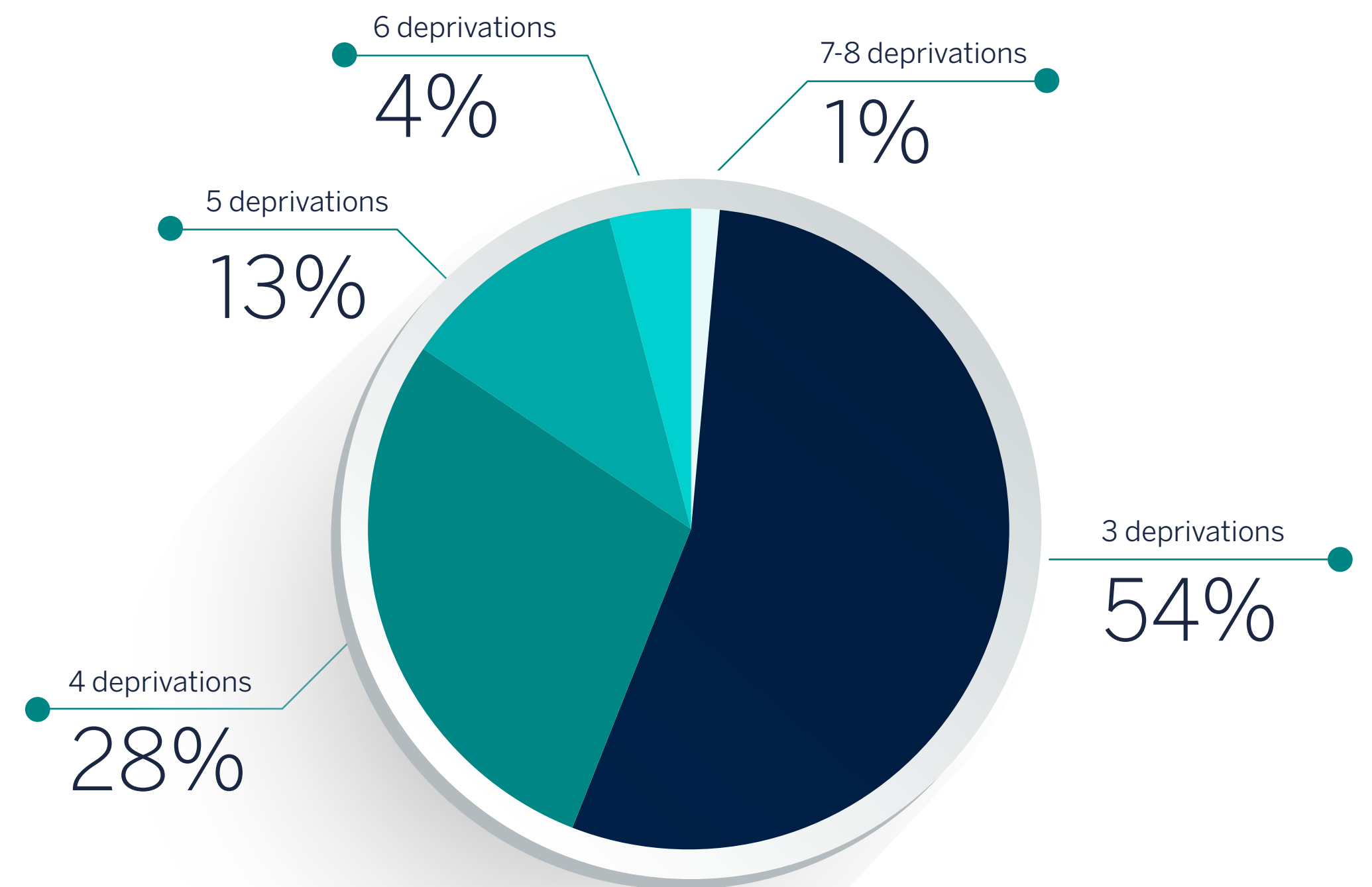
Breakdown of Poverty by Indicator

We shall now turn to the percentage of clients' households that are poor and deprived in each indicator. 18% of clients are poor and deprived in years of schooling, 14% are poor and deprived in sanitation, 13% are poor and deprived in housing materials, and 12% are poor and deprived in access to water. In terms of relative contribution to MPI, the health dimension contributes 39% of the MPI.

Of poor clients, 18% are deprived in Years of schooling, 14% in Sanitation, 13% in Housing materials, and 12% in Access to water ""
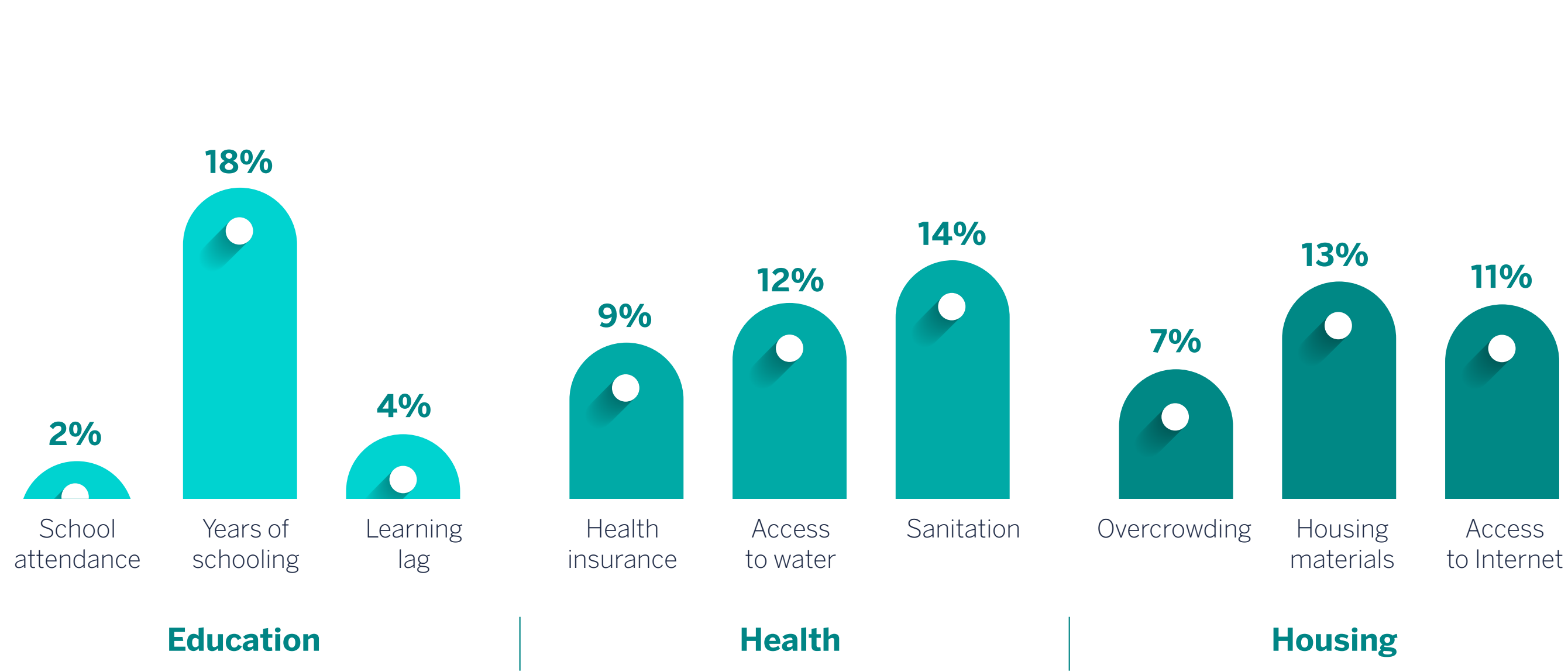
The Health dimension accounts for 39% of the Internal Multidimensional Poverty Index ""
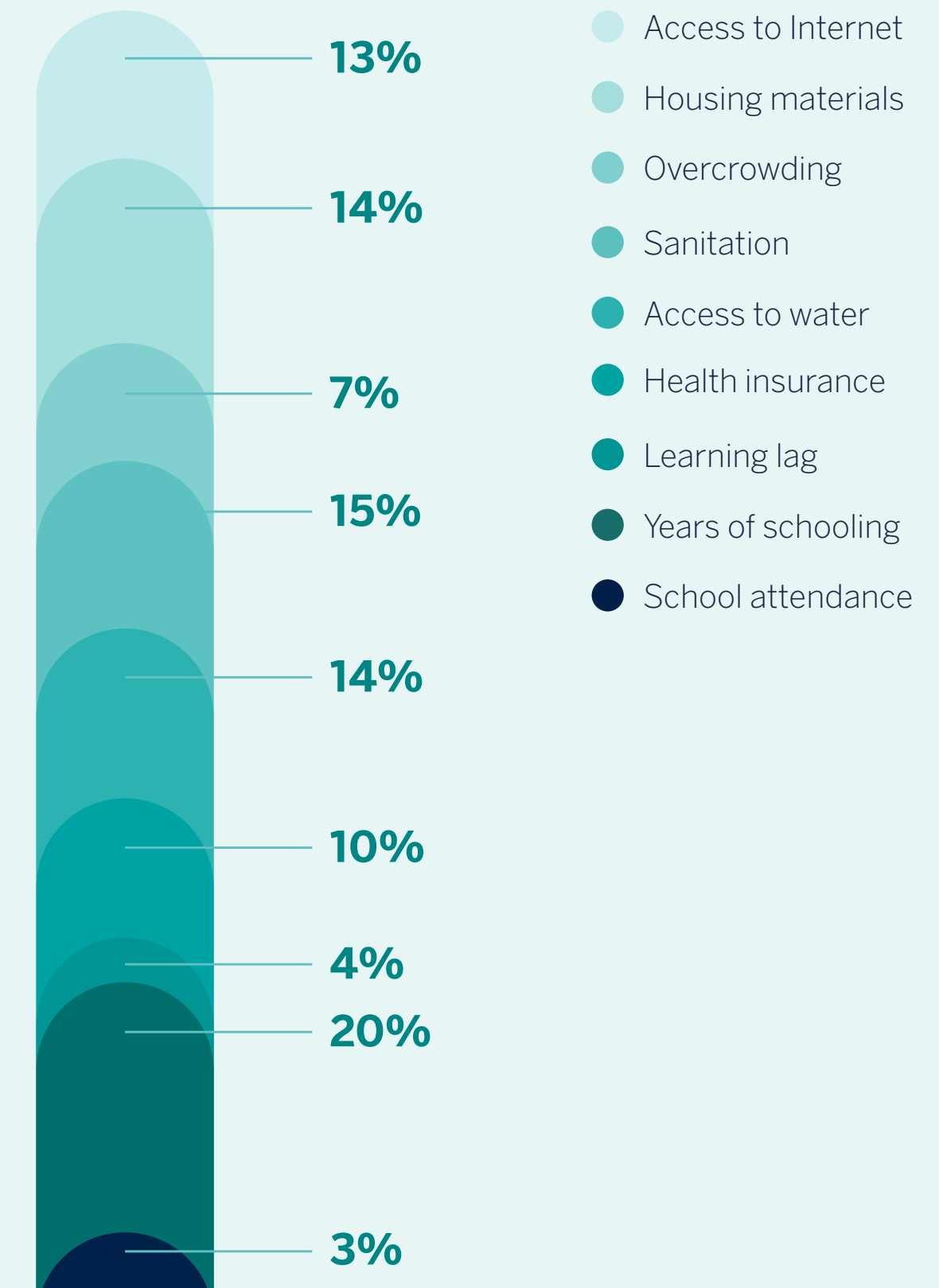
18 Percentage of households poor and deprived in each indicator

Percentage of households poor and deprived

2% School attendance

18% Years of schooling

4% Learning lag

Education

9% Health insurance

12% Access to water

14% Sanitation

Health

7% Overcrowding

13% Housing materials

11% Access to Internet

Housing

19 Relative contribution of each indicator to the IMPI

13%
14%
7%
15%
14%
10%
4%
20%
3%

- Access to Internet
- Housing materials
- Overcrowding
- Sanitation
- Access to water
- Health insurance
- Learning lag
- Years of schooling
- School attendance

Financiera Confianza and Banco Adopem serve 65% of the Group's poor clients, and a third of their clients live in multidimensional poverty **"**

Multidimensional Poverty by Microfinance Entity

It is important to bear in mind that as poverty was measured based on country-specific deprivation thresholds, the entities' poverty figures are not strictly comparable. These figures are presented here to provide an insight into the particular situation of each entity's clients.

At least a third of Financiera Confianza and Banco Adopem clients are living in multidimensional poverty. These two entities represent 47% of the client portfolio but serve 65% of clients in poverty.

The estimates suggest Fondo Esperanza clients experience a relatively low level of multidimensional poverty. However, it is important to acknowledge that in Chile's socio-economic context, our measure of multidimensional poverty is probably identifying only those individuals living in a situation of extreme poverty, experiencing severe deprivations. In order to build a measure that would allow us to better discriminate between poor and non-poor in Chile, we would probably have to cover other dimensions of poverty, such as Employment[11].

| Index	Country	Sample size	IMPI	Incidence (H,%)	Intensity (A,%)	% of clients	% of clients in poverty
Cartera de clientes		8,939	0.099	24.2%	41.0%		
Bancamía	Colombia	4,760	0.071	17.5%	40.4%	38.7%	28.0%
Financiera Confianza	Peru	2,271	0.137	32.7%	42.0%	28.5%	38.4%
Banco Adopem	Dominican Rep.	1,020	0.143	35.1%	40.8%	18.2%	26.4%
Fondo Esperanza	Chile	526	0.035	9.1%	38.4%	12.5%	4.7%
Microserfin	Panama	362	0.117	29.0%	40.2%	2.1%	2.5%

[11] Of the five dimensions included in Chile's national MPI, the 'Employment and Social Security' dimension is the one that most contributes to poverty, 31.0% in 2015 and 31.1% in 2017. Of the 11 MPI indicators tracked by CASEN during the pandemic in 2020, the three indicators of this dimension, Employment, Social Security and Retirement, recorded the highest levels of deprivation, only surpassed by deprivation in years of schooling.

21 Relative contribution of each dimension to the IMPI

● Housing
● Health
● Education
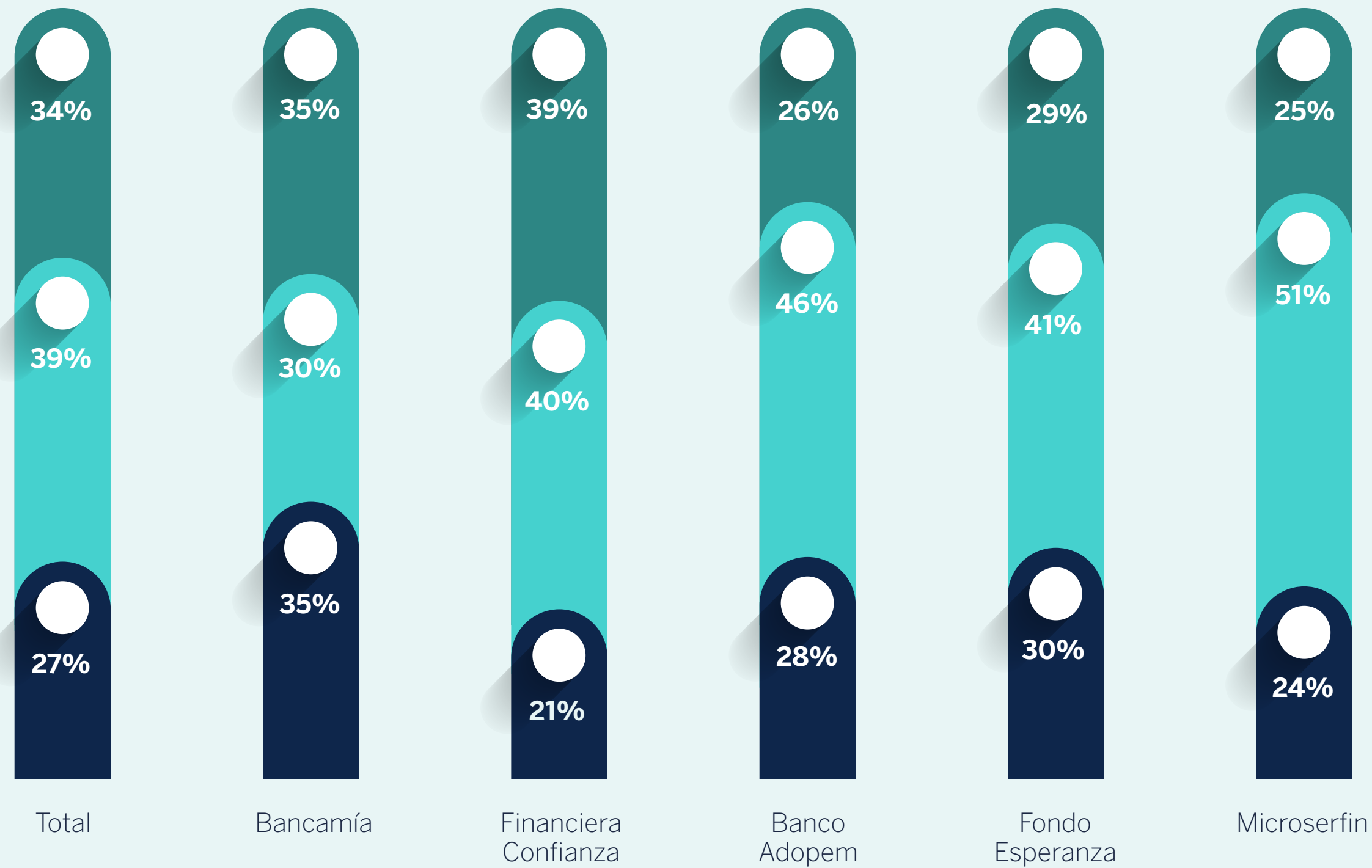
The health dimension is the biggest contributor to poverty across all entities, except for Bancamia. This dimension accounts for more than 50% of poverty among Microserfin clients.

Total
- 34%
- 39%
- 27%

Bancamía
- 35%
- 30%
- 35%

Financiera Confianza
- 39%
- 40%
- 21%

Banco Adopem
- 26%
- 46%
- 28%

Fondo Esperanza
- 29%
- 41%
- 30%

Microserfin
- 25%
- 51%
- 24%

Characteristics of poor households

The results show that, across all entities, households in poverty, on average, have more people, have children and have a lower per capita household income. In the case of clients from Bancamia, Financiera Confianza and Banco Adopem, poor clients are also more likely to live in rural areas.

Another important element of vulnerability is the number of unforeseen events - "shocks" – that they face. Clients were asked if they had encountered any unforeseen event and the data also shows that households suffering a shock tend to experience higher levels of poverty. The percentage of households that experience some type of shock varies between 37.6% (Bancamia) and 47.7% (Fondo Esperanza).

4 in every 10 poor households experience a shock „

22 Characteristics of poor and non-poor households

Household characteristics	Bancamía			Financiera Confianza			Banco Adopem			Fondo Esperanza			Microserfin		
	Non-poor	Poor	Diff.?	Non-poor	Poor	Diff.?	Non-poor	Poor	Diff.?	Non-poor	Poor	Diff.?	Non-poor	Poor	Diff.?
Number of members	3.2	4.1	***	3.1	4.0	***	3.1	3.6	***	3.6	5.3	***	2.8	4.0	***
With children	40%	65%	***	42%	58%	***	52%	62%	***	63%	75%	*	36%	54%	***
With school-age children	35%	58%	***	35%	50%	***	42%	56%	***	58%	71%	*	31%	46%	***
Number of children	0.6	1.2	***	0.7	1.1	***	0.9	1.2	***	1.1	1.9	***	0.6	1.2	***
With a senior member (age >64)	21%	17%	***	14%	14%		13%	11%		17%	27%	*	18%	15%	
Living in urban area	63%	32%	***	72%	60%	***	60%	52%	***	86%	92%		57%	54%	
Income per capita [1]	836,141	475,861	***	1,473	962	***	28,448	21,051	***	511,616	327,504	***	482	297	***

***Note: the difference is statistically significant at the level of 1%; ** significant at 5%; * significant at 10%. (1) Income per capita in local currency.
The table compares households in and not in poverty, by entity. For each characteristic, the table reports the average among non-poor households and poor households, and whether the difference between the two is statistically significant.

23 Shocks in poor and non-poor households

Household characteristics	Bancamía		Financiera Confianza		Banco Adopem		Fondo Esperanza		Microserfin	
	Shock	Non-shock	Shock	Non-shock	Shock	Non-shock	Shock	Non-shock	Shock	Non-shock
IMPI	0.097	0.055	0.153	0.124	0.173	0.122	0.041	0.029	0.124	0.112
Incidence (H%)	23.7%	13.8%	35.7%	29.9%	41.8%	30.3%	10.8%	7.6%	31.5%	27.4%
Intensity (A%)	40.7%	40.1%	42.7%	41.3%	41.3%	40.4%	38.3%	38.6%	39.5%	40.7%
Sample size	1,791	2,969	1,077	1,194	426	594	251	275	143	219

Multidimensional poverty and monetary poverty

To compare multidimensional with monetary poverty, we took two approaches. One was based on the client's reported business surplus, which we will refer to as "monetary poverty"[12]; the other was based on the client's perception about whether his/her household income is sufficient to meet the household's basic needs, which we will call "subjective poverty". The main concepts relating to monetary poverty used in this section are defined below.

Monetary Poverty
The BBVA Microfinance Foundation (BBVAMF) classifies all its clients as extremely poor, poor, vulnerable, or other, based on their reported business surplus for each family member and the national poverty line. In this study, a client was considered monetarily poor if BBVAMF classified him/her as poor or extremely poor. To reduce the bias resulting from defining poverty based on the client's business income rather than the household income, this variable was not defined for those clients who reported that their business income represented fewer than 50% of their household income. Thus, the analysis of monetary poverty should be interpreted carefully in Chile and Panama, as it might not be representative of the full client sample[13].

Subjective Poverty
A client was considered subjectively poor if he/she reported a household income lower than the household income they stated their household needed to meet its basic needs[14].

Subjective Poverty Gap
This is the absolute value of the normalized gap between the reported household income and the reported income required to satisfy basic needs [(household income - Income needed) / Income needed]. This variable is only defined for clients in subjective poverty.

Subjective Vulnerability
A client was considered subjectively vulnerable if he/she reported that his/her household income was higher than the income required to meet basic needs, but lower than the income needed for the household to be able to cope with unexpected expenses (e.g. car repair, new fridge)[15].

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[12] Given that BBVAMF's microfinance institutions mainly fund entrepreneurs, their business surplus, in most cases, is the main source of household income. Nevertheless, this question was considered in the survey and a filter used to ensure this was the case when comparing monetary vs. multidimensional poverty (see below).

[13] If clients whose business income represents fewer than 50% of the household income are different from clients whose business income represents at least 50% of the household income, the monetary poverty statistics reported here will be biased. For reference, the share of clients whose business income represents fewer than 50% of the household income are: 14% for Bancamia, 12% for Financiera Confianza, 22% for Banco Adopem, 31% for Fondo Esperanza and 15% for Microserfin.

[14] This variable was calculated comparing clients' responses to questions:
- "Can you tell us your household's average monthly income over the last three months?", and
- "What monthly income does your household need in order to meet its basic needs?"

[15] This variable was calculated comparing clients' responses to questions:
- "Can you tell us your household's average monthly income over the last three months?", and
- "What amount of monthly household income would be enough to make you feel "comfortable"?"

28

24 Incidence of poverty based on different measures

For Bancamia and Fondo Esperanza, the share of clients in monetary poverty is higher than the share of clients in multidimensional poverty. The opposite is true for the other three entities. Across all entities, the vast majority of clients perceive themselves as living in monetary poverty. The percentage of clients in subjective poverty ranges from 64% for Banco Adopem to 97% for Bancamia. It should be noted there is a relatively small overlap between clients in monetary poverty and clients in multidimensional poverty. This suggests that the two measures capture different phenomena and that targeting programs based only on the BBVAMF's monetary measure will omit an important share of clients who are in multidimensional but not monetary poverty.

Measurements	Bancamía	Financiera Confianza	Banco Adopem	Fondo Esperanza	Microserfin
Multidimensional Poverty Rate	17.5%	32.7%	35.1%	9.1%	29.0%
Monetary Poverty Rate [1]	32.9%	25.5%	20.7%	50.7%	16.8%
Subjective Poverty Rate	96.6%	86.4%	64.4%	79.8%	84.0%
Subjective Vulnerability Rate	1.7%	7.3%	10.7%	12.5%	4.7%
Average Subjective Poverty Gap	32.5%	28.4%	32.5%	28.0%	36.0%
of clients in monetary & multidimensional poverty [1]	6.7%	11.0%	8.8%	4.4%	7.8%

(1) Note: These figures were estimated based on the sample of clients who reported that their business surplus represents at least 50% of the household's income.

The data suggest that the multidimensional poverty measurement is highly complementary to monetary poverty „

25 IMPI by monetary poverty category
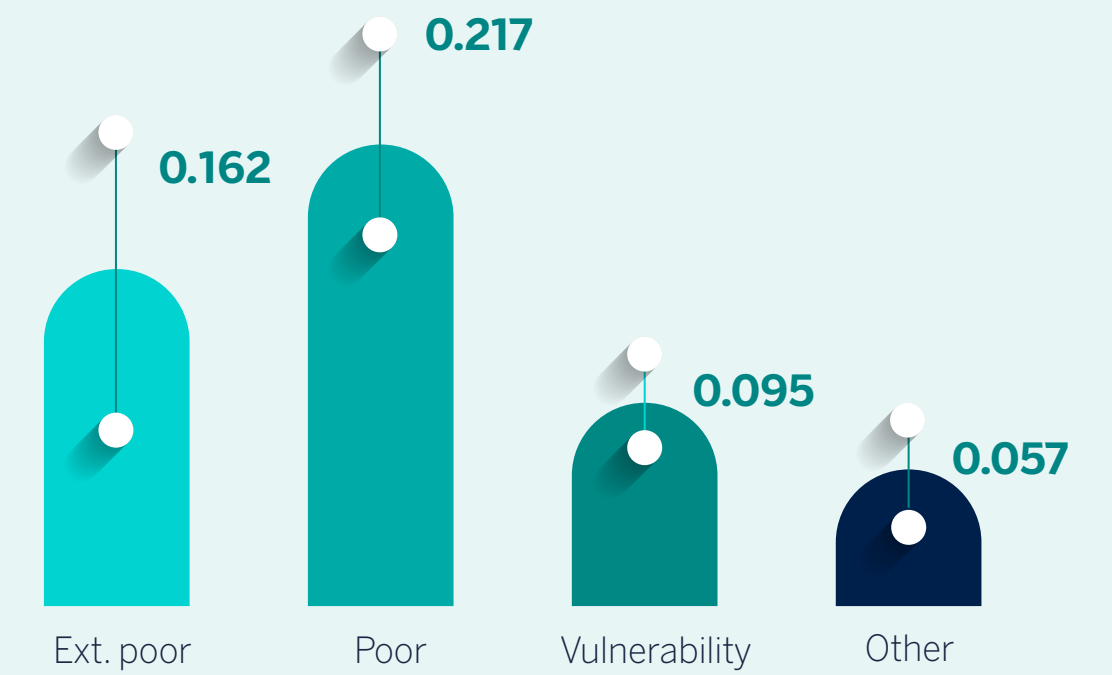
When we examine the level of multidimensional poverty among clients in the different monetary categories –extremely poor, poor, vulnerable, and other– we also find evidence that multidimensional poverty tends to be higher among households classified as poor and extremely poor than among vulnerable and other households.

Bancamía

Ext. poor	0.105
Poor	0.082
Vulnerability	0.064
Other	0.045

Banco Adopem

Ext. poor	0.156
Poor	0.185
Vulnerability	0.141
Other	0.112

Financiera Confianza

Ext. poor	0.117
Poor	0.182
Vulnerability	0.132
Other	0.103

Microserfin

Ext. poor	0.162
Poor	0.217
Vulnerability	0.095
Other	0.057

How to reduce poverty?

Proposing a strategy to reduce multidimensional poverty among the microfinance entities' clients goes beyond the scope of this report. Such endeavor requires a much deeper analysis of the context and type of programs available or within the entities' sphere of influence. Nevertheless, this section provides a simulation of the impact on the aggregated multidimensional poverty figures of a set of interventions implemented separately by each entity, targeting specific deprivations, under perfect (unrealistic) conditions. The purpose of this exercise is to give a very rough benchmark of the magnitude of change that could be achieved in a perfect scenario.

Each entity ranked the nine deprivations in terms of the entity's ability to support clients overcoming them, from the easiest or most accessible to the hardest or least accessible. Then, for each entity we defined the sequence of deprivations to be tackled based on this ranking, putting them in order of the indicators that most contribute to poverty, as well as specific concerns relating to some deprivations.

This exercise assumes:

/ Interventions/solutions are implemented in a sequential and synchronized manner[16]

/ Each intervention is offered by the entity to all poor households deprived in the indicator targeted by that intervention

/ Interventions are 100% effective, which means that all households and individuals that are offered an intervention overcome their deprivation in the indicator targeted by that intervention

[16] This means all entities implement their first intervention at the same time and the impact of that intervention is felt over the same time horizon. Then they all implement their second intervention, and the impact of that intervention is felt over the same time horizon. And so on.

According to the sequences proposed, sanitation is the first or second deprivation to be tackled for all entities. Although the deprivation in years of schooling is the biggest contributor to poverty among clients, this exercise only includes it in the sequence for Fondo Esperanza because this is a difficult deprivation to solve. It requires a major time investment which deprived individuals, especially older adults, might sometimes not be willing to make.
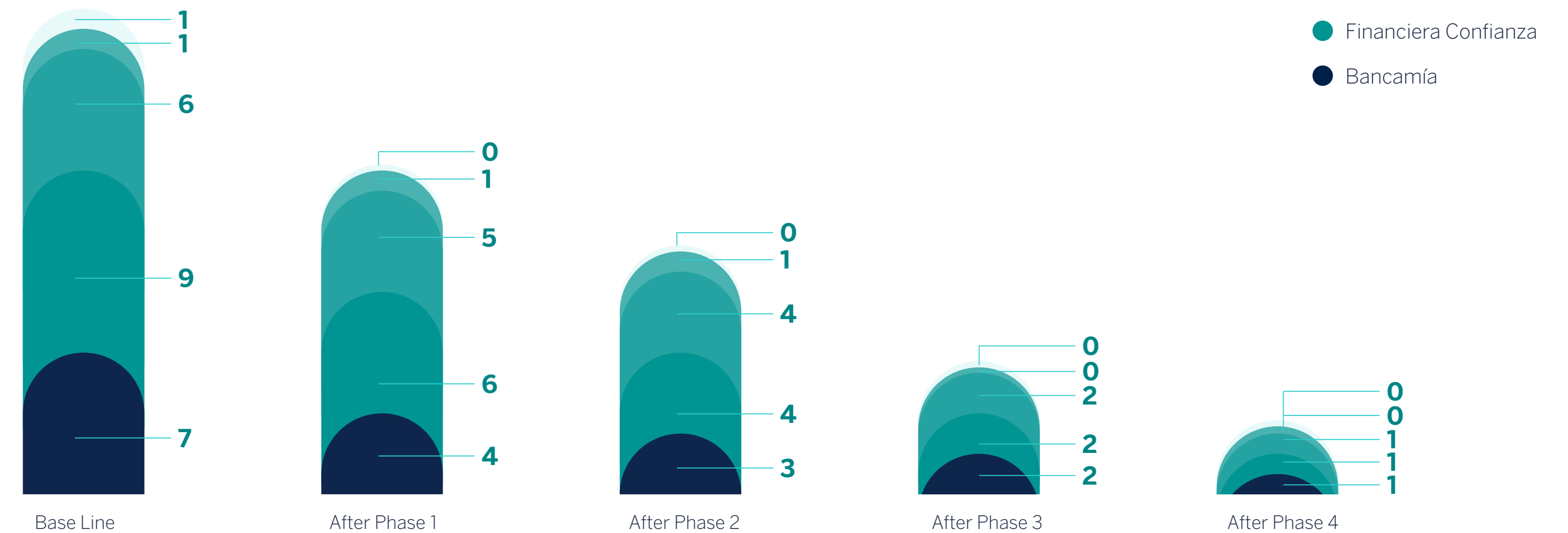
27 Sequence of deprivations to target by entity

Phases	Bancamía	Financiera Confianza	Banco Adopem	Fondo Esperanza	Microserfin
1	Sanitation	Housing materials	Health insurance	Sanitation	Health insurance
2	Access to Internet	Sanitation	Sanitation	Health insurance	Sanitation
3	Housing materials	Access to Internet	Housing materials	Overcrowding	Access to Internet
4	Access to water	Health insurance	Access to water	Years of schooling	Access to water

26 Simulated impact of interventions

Sample size	IMPI	Incidence (H,%)	Intensity (A,%)
Base Line	0.099	24.2%	41.0%
After Phase 1	0.065	16.8%	38.9%
After Phase 2	0.041	11.2%	36.7%
After Phase 3	0.022	6.3%	35.8%
After Phase 4	0.009	2.5%	34.3%

28 Estimated impact of interventions on incidence

Microserfin
Fondo Esperanza
Banco Adopem
Financiera Confianza
Bancamía

Final thoughts

This study broadens our understanding of the conditions in which our entrepreneurs live. We have learnt that clients show relatively high levels of deprivation in some indicators that are very actionable, such as sanitation, housing materials and health insurance. We have also learned how complementary (and necessary) this information is to better respond to vulnerability in various dimensions. Finally, we now understand that supporting our clients to improve their living standards will require working in partnership with other stakeholders, including national governments. It will be an effort for many and an opportunity for all.

33

Methodological note

This note briefly describes the methodology used to calculate multidimensional poverty[17] among BBVAMF microfinance institutions' clients.

The IMPI used in this study consists of nine indicators grouped into three dimensions, Education, Health and Housing. The deprivation cutoffs are country-specific, so each entity is able to adequately identify the most vulnerable clients in its own portfolio. The selection of these cutoffs was informed by the deprivation cutoffs in the national measurements (where these exist), the survey results and the microfinance entity's local knowledge.

The definitions of the cutoffs used for each entity are presented at the end of this note. Table 29 shows that for most indicators there are some deprivation cutoffs that are common across entities.

Each dimension is equally weighted and each indicator within each dimension is also equally weighted. As the three dimensions nest three indicators each, all indicators have equal weights (1/9). The poverty cutoff is 33.33%, which means that a client is identified as poor if he or she lives in a household deprived in at least one third of the indicators.

29 Overlap between deprivation cutoffs selected by different entities

Indicator	Bancamía	Financiera Confianza	Banco Adopem	Fondo Esperanza	Microserfin
School attendance	X	X	X	X	X
Years of schooling	X	X			X
Learning lag	Y	X	X	X	Y
Health insurance	Y	X	X	X	Y
Access to water	X	X		X	X
Sanitation	X	X	X	X	
Overcrowding		X	X		X
Housing materials		X		X	
Internet access	X	X	X	X	X

Note: For each type of indicator, x and y identify the entities that used the same deprivation cutoff. For example, in the case of the schooling gap, Banco Adopem, Financiera Confianza and Fondo Esperanza used one deprivation cutoff, while Bancamia and Microserfin used another. Regarding housing materials, each entity used a different deprivation cutoff, except for Financiera Confianza and Fondo Esperanza, which used the same one.

[17] The MPI is constructed based on the Alkire-Foster multidimensional poverty measurement method. For a detailed explanation of the methodology see Alkire, S., Foster, J. E., Seth, S., Santos, M. E., Roche, J. M., and Ballon, P. (2015). Multidimensional Poverty Measurement and Analysis, Oxford: Oxford University Press. All chapters available at https://ophi.org.uk/publications/ophi-working-papers/.

This IMPI, like most existing ones, identifies poverty at the household rather than at the individual level. This implies that a client is classified as poor depending not only on his/her achievements, but also on the achievements of the other members of his/her household. We opted for focusing on the household because most clients do not live alone, sharing resources and responsibilities with the people with whom they live.

The computation of an MPI involves two steps: (i) identifying who lives in poverty, and (2) aggregating the data on individuals' deprivations and poverty status into meaningful summarized measures.

Identification

First, by applying the indicators' definitions to the information provided by the client, we identify the specific deprivations of each client. Second, for each client we add up his/her weighted deprivations, obtaining the client's deprivation score. By definition, this deprivation score varies between zero, for those clients who live in a household with no deprivations, and 100%, for those clients who live in households deprived in all nine indicators.

Third, we identify as poor those clients whose deprivation score is equal or higher than the 33.33% poverty cutoff.

Aggregation

Information is summarized in three main indices.

/ Headcount ratio or incidence (H): the percentage of clients identified as poor.

/ Intensity of poverty (A): the average share of deprivations experienced by poor clients; this corresponds to the average deprivation score across clients identified as living in poverty.

/ IMPI or adjusted headcount ratio: the incidence adjusted by the intensity of poverty; corresponds to the product of incidence by intensity. The MPI ranges from zero to one, with higher values meaning higher levels of poverty. This index is sensitive to movements in and out of poverty, captured by changes in incidence, as well as to changes in the number of deprivations experienced by the poor, captured by changes in intensity. The IMPI is estimated based on survey data collected by the five entities between October and November 2021. This survey collected data on 9,102 clients. After removing clients with missing responses, the study ended up with an estimation sample of 8,939 clients. Table M.2 presents the sample size by entity. The survey collected information about the client, the other members of his/her household (who we refer to as "family members"[18]) and the characteristics of his/her dwelling.

30 **Sample size by entity**

Entity	Nº clients completed questionnaire	Nº clients included in IMPI sample	% of clients dropped from IMPI sample
Bancamía	4,767	4,760	0.1%
Financiera Confianza	2,354	2,271	3.5%
Banco Adopem	1,078	1,020	5.4%
Fondo Esperanza	537	526	2.0%
Microserfin	366	362	1.1%

[18] We adopted the term "family member" for the sake of simplicity. Strictly speaking, people who share a home may not be relatives.

31 Definitions of indicators used for Bancamia, Colombia

Education

Indicator	Private households if...
School attendance	Any family member between 5 and 17 not attending school.
Years of schooling	Any family member, 18 or older, not attending special education, who did not complete the minimum years of schooling for their age group: • **18 to 24:** fewer than 12 years of schooling; • **25 to 34:** fewer than 9 years of schooling; & • **35 to 64:** fewer than 6 years of schooling.
Learning lag	Any family member between 7 and 17 attending school who has repeated a year once or more.

Health

Indicator	Private households if...
Health insurance	Any family member without private health insurance for any reason other than 'does not consider it necessary'.
Access to water	**Urban area:** water source other than piped, in-dwelling. **Rural area:** source of water other than: • piped, in-dwelling • piped, outside home but on own land • shared standpipe • well with pump • covered well
Sanitation	Toilet is shared with other households; or **Urban area:** toilet is connected neither to sewage system nor to a septic tank. **Rural area:** toilet is connected neither to sewage system, nor to a septic tank; nor is it a latrine connected to a septic tank.

Housing

Indicator	Private households if...
Overcrowding	**Urban area:** number of people per bedroom is 3 or higher; **Rural area:** number of people per bedroom is higher than 3.
Housing materials	**Urban area:** the home has: • Floor of beaten earth, sand, scrap material, reeds, palm wood, or rough wood; or • Roof of scrap materials, palm wood, straw or branches, bamboo or cane, plywood, matting, reeds, or cane/matting with mud or cement tiling; or • Walls of rough wood, straw, palm, bamboo, cane, thorny bamboo, metal or zinc sheeting, scrap materials, or without walls; or **Rural area:** the home has: • Floors of beaten earth, sand or scrap materials; or • Roof of scrap materials, palm, straw or branches, bamboo or cane, plywood, matting, reed, or cane/matting with mud or cement tiling; or • * Walls of straw, palm, bamboo, cane, thorny bamboo, matting, metal or zinc sheeting, scrap materials, or no walls.
Internet access	Home has no Internet access for any reason other than 'does not consider it necessary'.

32 Definitions of indicators used for Financiera Confianza, Peru

Education

Indicator	Private households if...
School attendance	Any family member between 5 and 17 not attending school.
Years of schooling	Any family member, 18 or older, not attending special education, who did not complete the minimum years of schooling for their age group: • **18 to 24:** fewer than 12 years of schooling; • **25 to 34:** fewer than 9 years of schooling; & • **35 to 64:** fewer than 6 years of schooling.
Learning lag	Any family member between 7 and 17 attending school who has repeated a year twice or more.

Health

Indicator	Private households if...
Health insurance	Any family member not affiliated to any health system and without health insurance.
Access to water	**Urban area:** water source other than piped, in-dwelling. **Rural area:** source of water other than: • piped, in-dwelling • piped, outside home but on own land • shared standpipe • well with pump • covered well
Sanitation	Toilet is shared with other households; or **Urban area:** toilet is connected neither to sewage system nor to a septic tank . **Rural area:** toilet is connected neither to sewage system, nor to a septic tank; nor is it a latrine connected to a septic tank.

Housing

Indicator	Private households if...
Overcrowding	There are 3 or more people to a bedroom.
Housing materials	**The home has:** • Floor of beaten earth, sand, scrap material, rough wood, cane, palm wood; or • Roof of scrap materials, palm wood, straw or branches, bamboo or cane, plywood, matting, reeds, or cane/matting with mud or cement tiling; or **Walls of:** • **Urban area:** rough wood, straw, palm, bamboo, cane, thorny bamboo, matting, metal or zinc sheeting, scrap materials, or without walls; or • **Rural area:** straw, palm, bamboo, cane, thorny bamboo, matting, metal or zinc sheeting, scrap materials, or without walls.
Internet access	Home has no Internet access for any reason other than 'does not consider it necessary'.

33 Definitions of indicators used for Banco Adopem, Dominican Republic

Education

Indicator	Private households if...
School attendance	Any family member between 5 and 17 not attending school.
Years of schooling	Any family member, 18 or older, not attending special education, who did not complete the minimum years of schooling for their age group: • **18 to 29:** did not complete second cycle of secondary education (3rd and 4th year of high school, 11 years of schooling); • **30 to 39:** did not complete the first cycle of secondary education (2nd year of high school, 10 years of schooling); • **40 to 59:** did not complete obligatory primary education (8 years of schooling); • **60 to 69:** did not complete the first cycle of primary education (4 years of schooling), and • **70 or older:** nnever went to school.
Learning lag	Any family member between 7 and 17 attending school who has repeated a year twice or more.

Health

Indicator	Private households if...
Health insurance	Any family member not affiliated to any health system and without private health insurance.
Access to water	Source of water other than piped, in-dwelling.
Sanitation	Toilet is shared with other households; or **Urban area:** toilet is connected neither to sewage system nor to a septic tank. **Rural area:** toilet is connected neither to sewage system, nor to a septic tank; nor is it a latrine connected to a septic tank.

Housing

Indicator	Private households if...
Overcrowding	There are 3 or more people to a bedroom.
Housing materials	**The home has:** • Floor of beaten earth, sand, scrap material, rough wood, cane or palm; • Roof of scrap materials, palm, straw or branches, bamboo or cane, plywood, matting, reeds, or cane or matting with mud or cement tiling; • PWalls of scrap materials, straw, palm, bamboo, cane, matting, metal or zinc sheeting, rough wood, or without walls.
Internet access	Home has no Internet access for any reason other than 'does not consider it necessary'.

34 Definición de indicadores utilizados para Fondo Esperanza, Chile

Education

Indicator	Private households if...
School attendance	Any family member between 5 and 17 not attending school.
Years of schooling	• Any family member 18 or over not in special education who did not complete the minimum number of years of schooling as set by law (according to their age): • Born since 1985: **12 years** • Born between 1953 and 1984: **8 years** • Born between 1918 and 1952: **6 years** • Born before 1918: **4 years**
Learning lag	Any family member between 7 and 17 attending school who has repeated a year twice or more.

Health

Indicator	Private households if...
Health insurance	Any family member not affiliated to any health system and without private health insurance.
Access to water	**Urban area:** water source other than piped, in-dwelling. **Rural area:** source of water other than: • piped, in-dwelling • piped, outside home but on own land • shared standpipe • well with pump • covered well
Sanitation	Toilet is shared with other households; or **Urban area:** toilet is connected neither to sewage system nor to a septic tank. **Rural area:** toilet is connected neither to sewage system, nor to a septic tank; nor is it a latrine connected to a septic tank.

Housing

Indicator	Private households if...
Overcrowding	There are 2.5 or more people to a bedroom.
Housing materials	**The home has:** • Floor of beaten earth, sand, scrap material, rough wood, cane, palm; • Roof of scrap materials, palm, straw, branches, bamboo, cane, plywood, matting, reeds, or cane/reeds with mud/cement tiling; **Walls of:** • **Urban area:** rough wood, straw, palm, bamboo, cane, thorny bamboo, matting, metal or zinc sheeting, scrap materials, or without walls; o • **Rural area:** straw, palm, bamboo, cane, thorny bamboo, matting, metal or zinc sheeting, scrap materials, or without walls.
Internet access	Home has no Internet access for any reason other than 'does not consider it necessary'.

35 Definitions of indicators used for Microserfin, Panama

Education

Indicator	Private households if...
School attendance	Algún miembro del hogar con edad entre 5 y 17 años no asiste a la escuela.
Years of schooling	Any family member 18 or over not attending special education who did not complete the minimum number of years of schooling for their age: • **18 to 24:** fewer than 12 years of schooling; • **25 to 34:** fewer than 9 years of schooling; & • **35 to 64:** fewer than 6 years of schooling.
Learning lag	Any family member between 7 and 17 attending school who has repeated a year once or more.

Health

Indicator	Private households if...
Health insurance	Any family member without private health insurance for any reason other than 'does not consider it necessary'.
Access to water	**Urban area:** water source other than piped, in-dwelling **Rural area:** source of water other than: • piped, in-dwelling • piped, outside home but on own land • shared standpipe • well with pump • covered well
Sanitation	**Urban area:** toilet is connected neither to sewage system nor to a septic tank; or toilet is shared with other households; **Rural area:** no toilet, or the toilet or latrine is not connected to sewage system or septic tank, or the latrine is connected to the sewage system or septic tank but shared with other households.

Housing

Indicator	Private households if...
Overcrowding	There are 3 or more people to a bedroom.
Housing materials	**Urban area:** the home has • walls of wood, *quincha* (wood & mud), metal, palm, straw or branches, cane or bamboo, scrap materials, or without walls; or • roof of wood, palm, straw, branches or scrap materials; or • floor of wood, earth or similar materials. **Rural area:** the home has • walls of metal, palm, straw, branches, cane or bamboo, other scrap materials or without walls; or • roofs of wood, palm, straw, branches or scrap materials; or • floors of beaten earth or scrap materials.
Internet access	Home has no Internet access for any reason other than 'does not consider it necessary'.