Haiyan PhATS program: End-line assessment

UNICEF - REACH Initiative

Partner Meeting - Tacloban
07 April 2016

PhATS End-line

1 - Methodology

2 - Findings

2.1 - Households

- Households characteristics
- Water supply
- Health and hygiene
- Sanitation

2.2 - Schools

- WASH activities
- Water supply
- Health and hygiene
- Sanitation

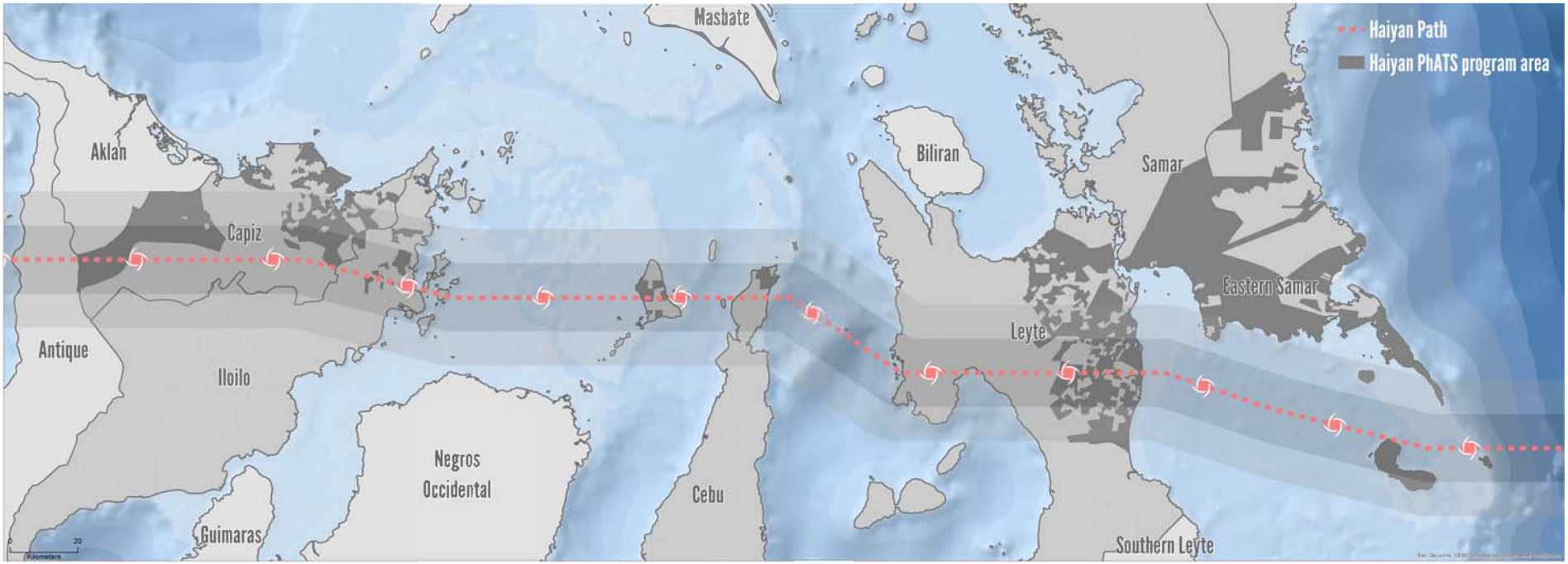
1 - Methodology

Methodology

The main objective of the assessment is to measure change in sanitation since the baseline amongst households and school in the target area.

The specific objectives are the following:

- Measure change in sanitation knowledge, attitudes and practices at household level, in the Haiyan PhATS program area.
- Measure change in sanitation at school level, in the Haiyan PhATS Program area.



Methodology

This assessment used a mixed-methods approach methodology:

WASH Assessment at Household and Community Level

- Quantitative Data: Household Surveys
- Qualitative Data: Community Focus Group Discussions

WASH in Schools (WinS)

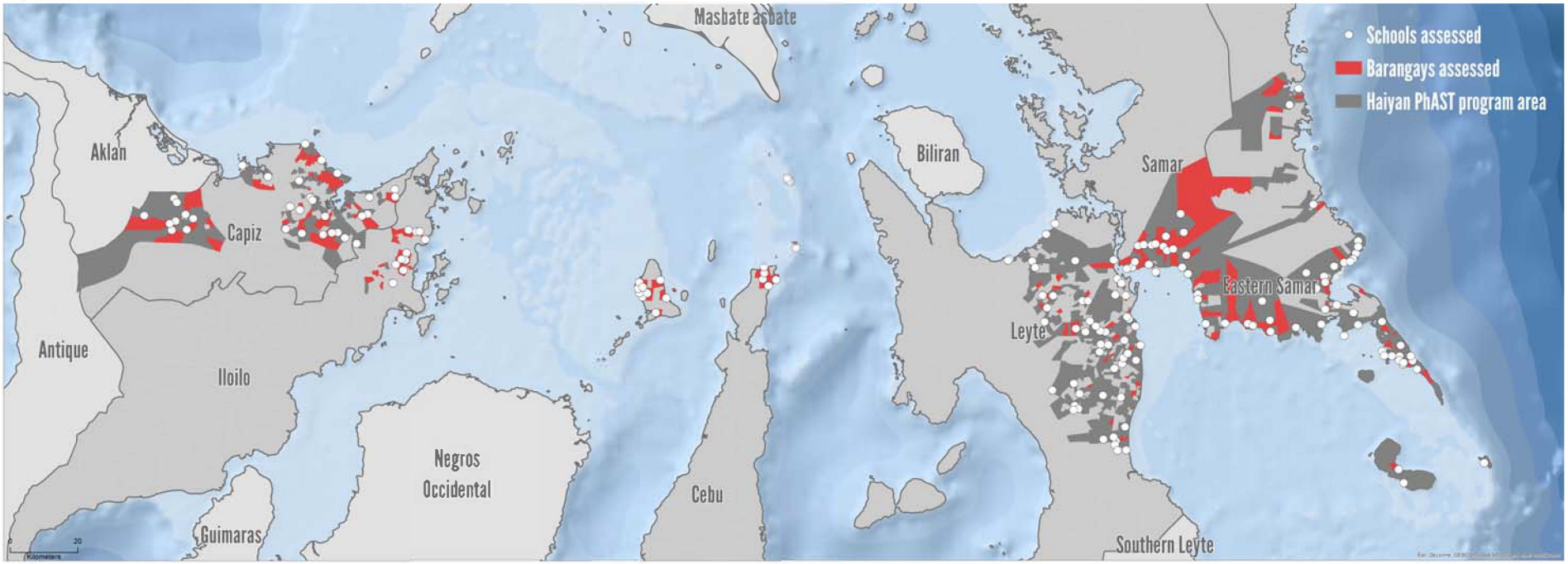
- Quantitative Data: School Surveys
- Qualitative Data: Student Focus Group Discussions

Data collection

- Communities: 15 February - 20 March 2016
- Schools: 15 February - 31 March 2016

Methodology

Area assessed



A total of **1794 households** and **180 schools** were assessed as part of the endline survey.

Methodology - Sample

Households survey

	Capiz	Cebu	Eastern Samar	Iloilo	Leyte	Samar	PhATS Area
Baseline	400	380	550	375	950	370	3025
End-line	244	349	279	400	270	252	**1794**

The sampling methodology was designed to generate representative data statistically significant at:

- Province level: confidence level of 92% and a margin of error of +/- 7%
- PhATS Area: confidence level of 95% and a margin of error of +/- 3%

Schools survey

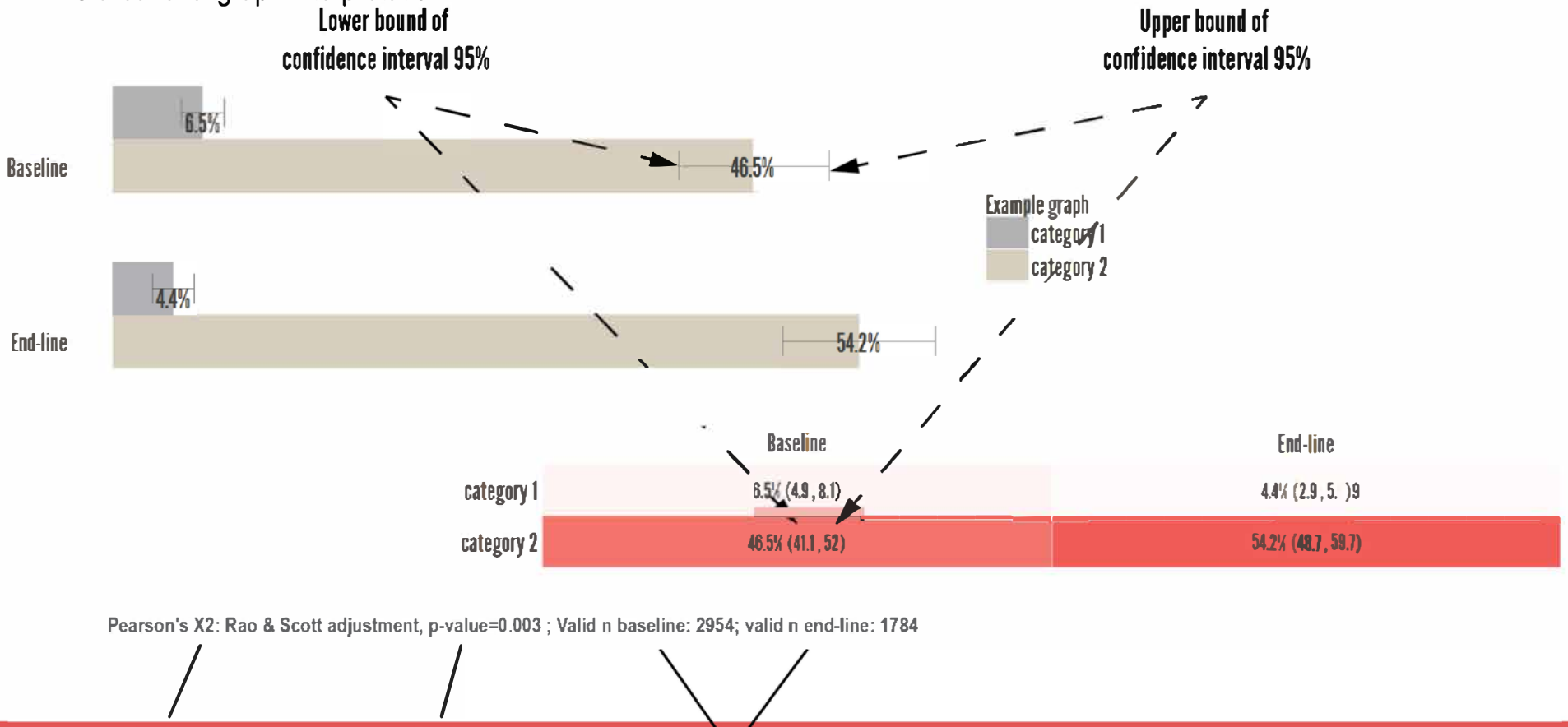
	Capiz	Cebu	Eastern Samar	Iloilo	Leyte	Samar	PhATS Area
End-line	31	17	45	11	55	21	**180**

- Schools in PhATS area: confidence level of 92% and a margin of error of +/- 7%

Methodology - Notes on graphics and visualisation

The graphs and visualisations are showing the finding in the sample alongside the **confidence interval of the findings in the population of interest**.

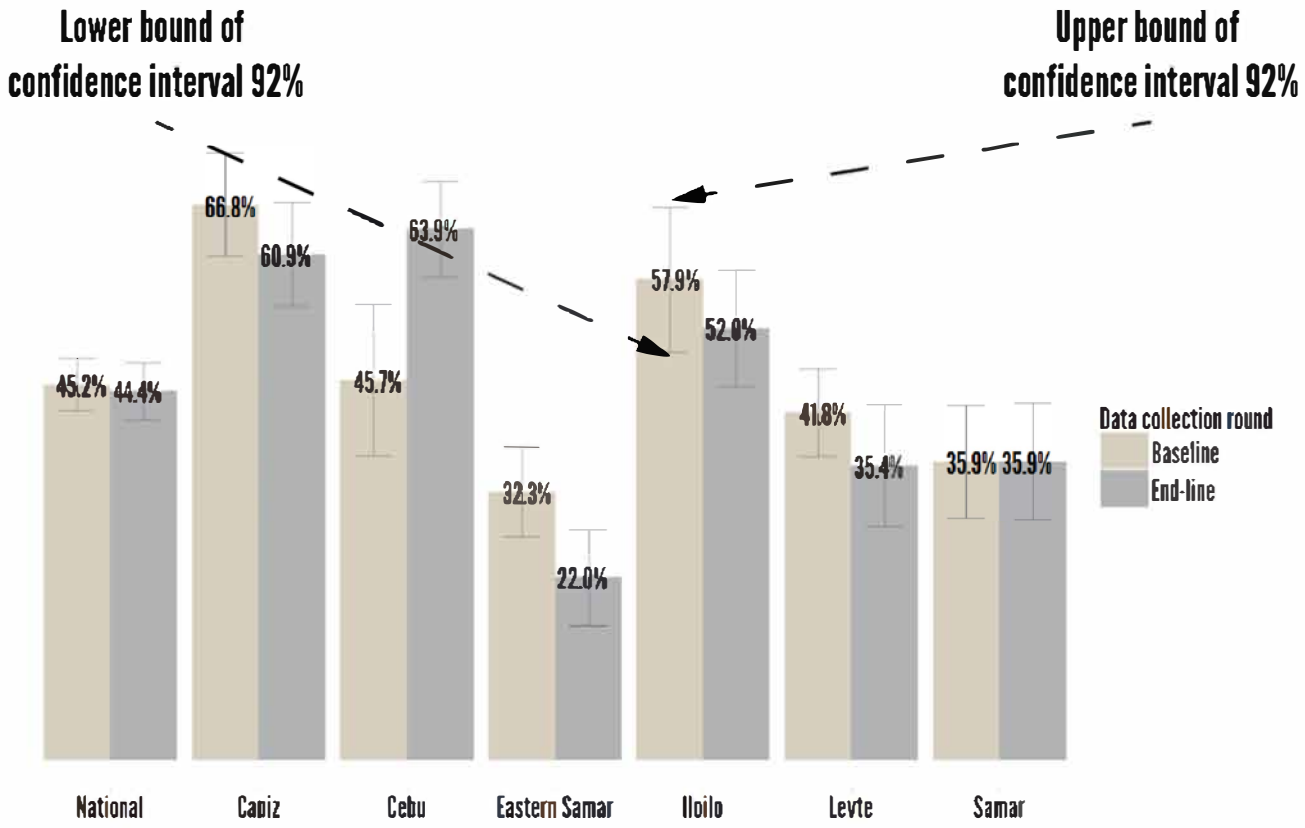
PhATS area level graph interpretation



Methodology - Notes on graphics and visualisation

92% confidence at province level

Province level graph interpretation

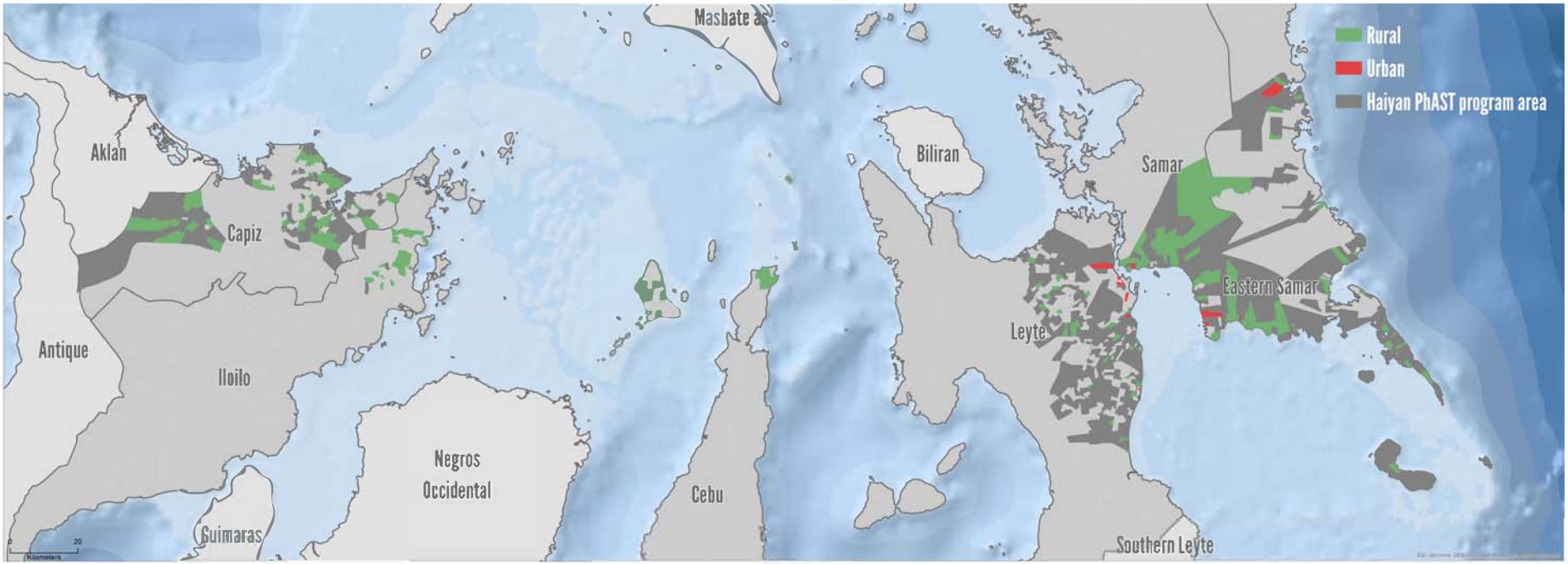


2 - Findings

2.1 - Household survey

Population of interest

Area assessed - Rural / Urban

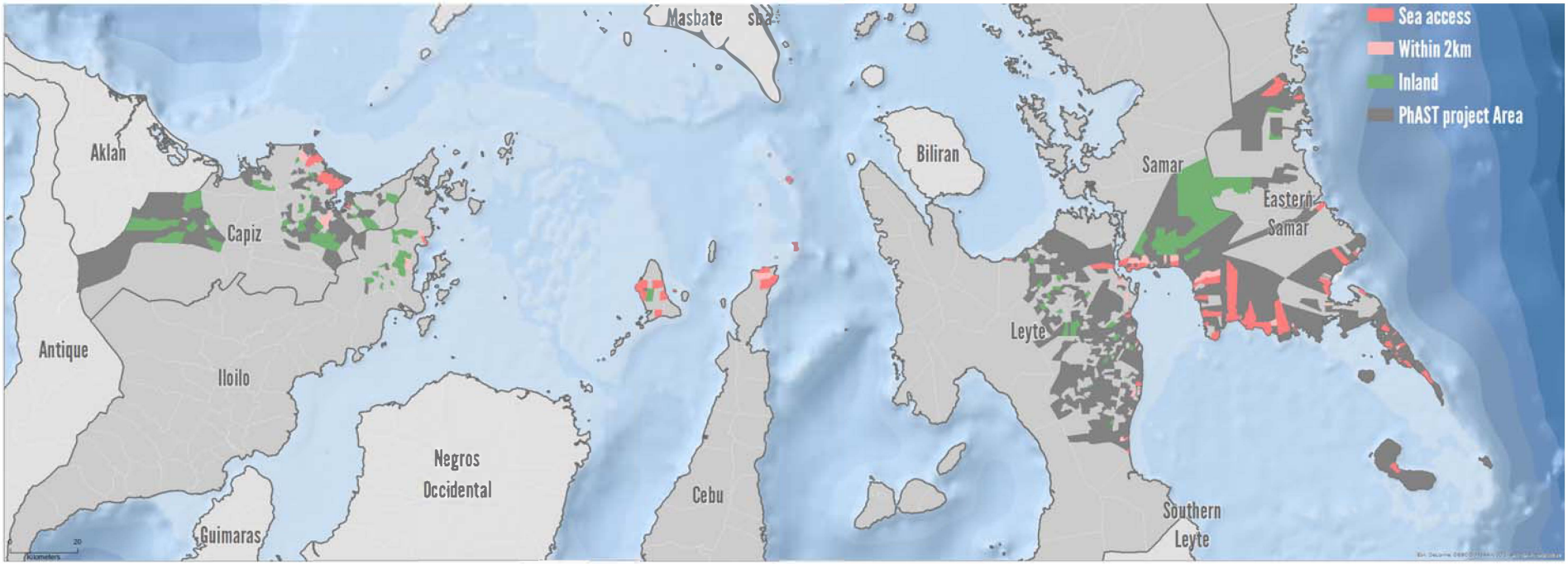


Barangay in rural and urban PhATS area

- 75.9% of households were living in rural area.

Population of interest

Area assessed - Coastal / Inland

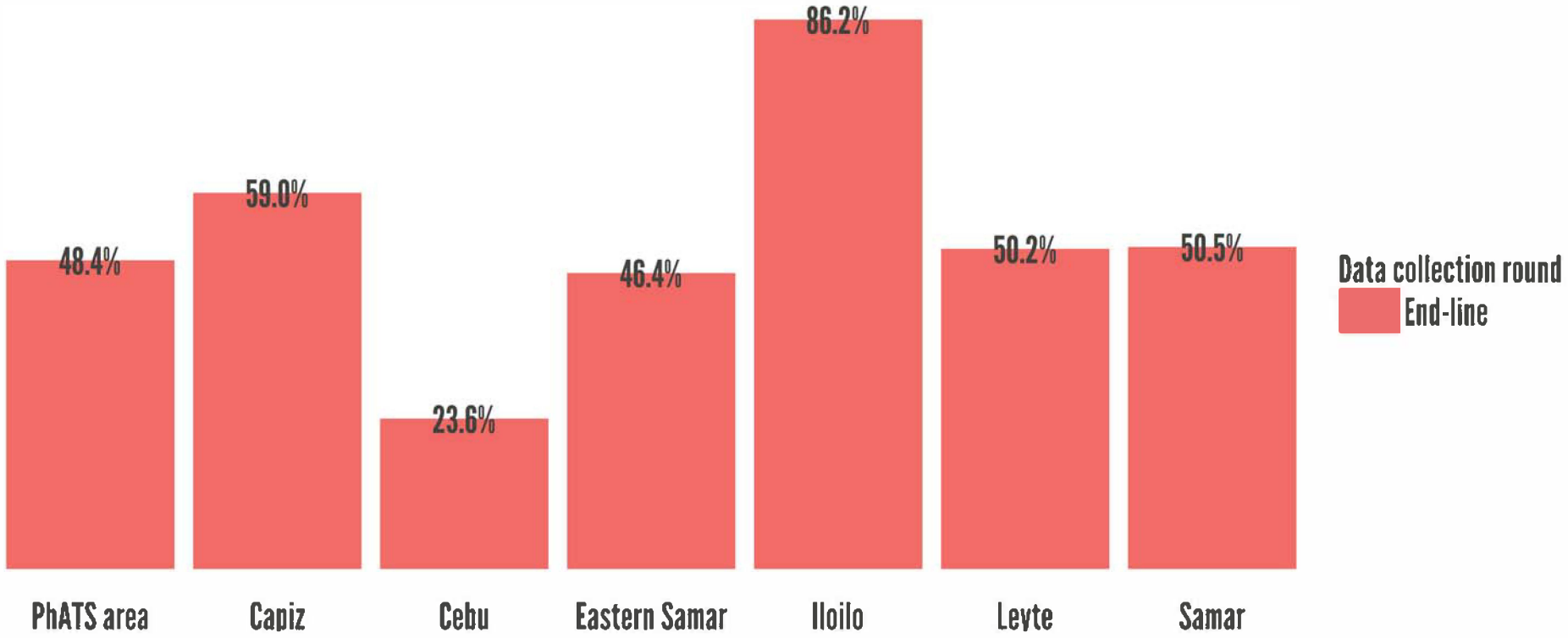


Barangay in coastal and inland PhATS area

- 50.5% of households were living in coastal barangay.

Population of interest

Households living in ZOD certified barangays by data collection round



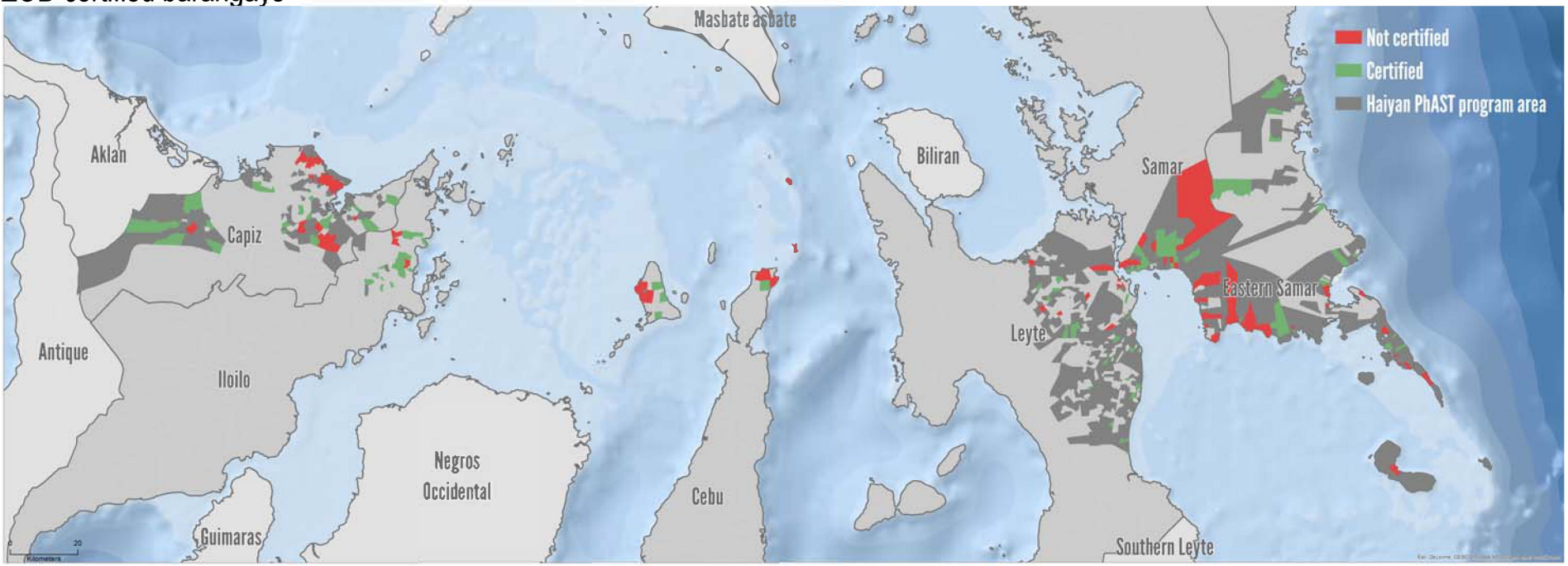
Valid n end-line: 1794

- **48.4%** of the households in the PhATS project area are living in certified ZOD (Zero Open Defecation) barangays.

ZOD Data UNICEF November 2015

Population of interest

ZOD certified barangays

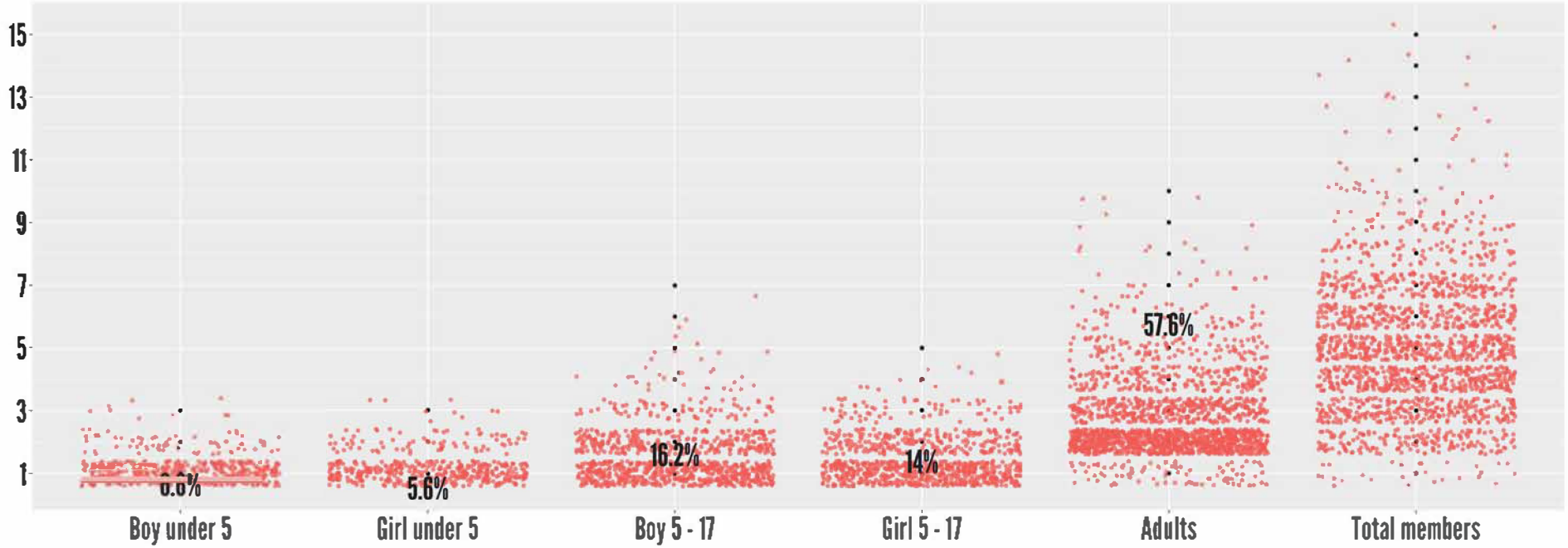


- **48.4%** of the households in the PhATS project area are living in certified ZOD (Zero Open Defecation) barangays.

ZOD Data UNICEF November 2015

Findings - Household characteristics

Distribution of household members and percentage of member by age and sex



- The average household size is **5.1**
- **9.5%** of households have at least one **member with disability**.

Findings - Households characteristics

Households average monthly income by data collection round

	Baseline	End-line
0 PHP	4.2% (3.2 , 5.2)	2.1% (0 , 4.2)
1 - 3,332 PHP	64.5% (61 , 67.9)	54.7% (50.1 , 59.4)
3, 333 – 5,000 PHP	19.3% (16.7 , 21.9)	27% (24 , 29.9)
5,001 – 8, 333 PHP	8% (6 , 10.1)	9.3% (7.1 , 11.5)
8, 334 – 20, 833 PHP	3.2% (1.5 , 4.9)	6% (3.3 , 8.8)
More than 20,883 PHP	0.7% (0.1 , 1.2)	0.8% (0.2 , 1.4)

Pearson's X^2: Rao & Scott adjustment, p-value=0.003; Valid n baseline: 2954; valid n end-line: 1784

- Increase in proportion of households earning between 3,334 and 5,000 PHP

Findings - Households characteristics

Type of housing by data collection round

	Baseline	End-line
Timber frame	46.1% (42.8 , 49.5)	44.2% (40.6 , 47.8)
Timber and concrete	25.1% (22.3 , 27.8)	23.9% (20.8 , 27.1)
Hut	14.1% (11.9 , 16.2)	14.4% (11.6 , 17.2)
Concrete	10.6% (8.6 , 12.7)	16.9% (13.4 , 20.5)
Makeshift shelter	4.1% (2.8 , 5.3)	0.5% (0 , 1)

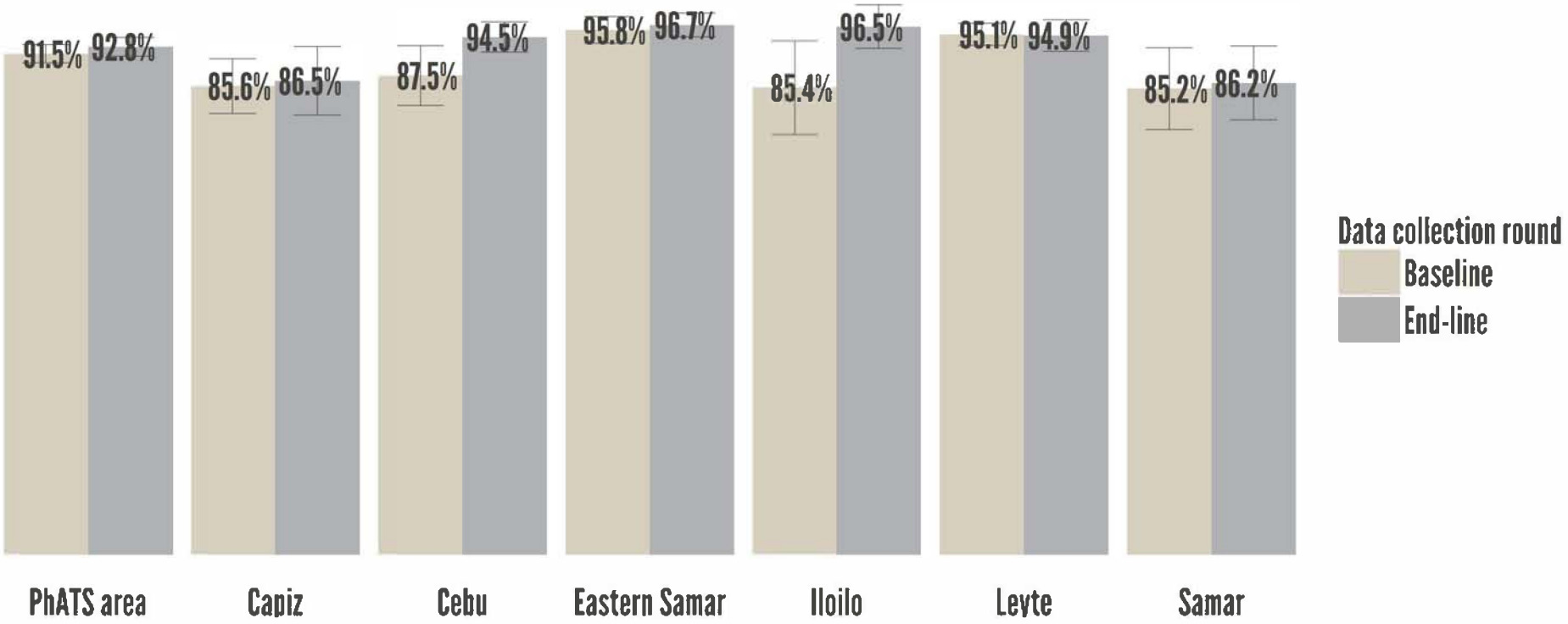
Pearson's X^2: Rao & Scott adjustment, p-value=0.000; Valid n baseline: 3024; valid n end-line: 1794

- Most common housing type: timber frame 44.2%.
- **Increase concrete houses**: from **10.6%** (8.6;12.7) during the baseline to **16.9%** (13.4;20.5) during the endline.
- Decrease of households living in makeshift shelters

Water Supply

Drinking water

Households accessing improved water source for drinking water by data collection round



Valid n baseline: 2938 ; valid n end-line: 1794

- **92.8%** of the population in PhATS project areas are using an **improved drinking water source**.

Improved drinking water sources include: bottled water; piped water; public tap; protected spring; proteted dug well and tube well borehole

Drinking water

Households drinking water source by data collection round

		Baseline	End-line
	Bottled water	16.7% (13.3 , 20)	29.8% (25.4 , 34.1)
Improved water source	Piped water into dwelling (house)	10.9% (8.8 , 13.1)	13.3% (10.4 , 16.2)
	Piped water to yard or plot	19.7% (16.4 , 22.9)	11.1% (8.7 , 13.6)
	Public tap or standpipe	11.5% (9.2 , 13.8)	11.9% (9.3 , 14.5)
	Tube well or borehole	26.4% (22.2 , 30.7)	17% (13.2 , 20.8)
	Protected dug well	5.8% (4.2 , 7.4)	8.8% (5.9 , 11.6)
	Protected spring	2.3% (1.4 , 3.3)	3.8% (2.1 , 5.5)
Unimproved water source	Rainwater collection	0.7% (0.2 , 1.2)	0.7% (0 , 1.3)
	Unprotected dug well	3% (2.1 , 3.9)	2.4% (1.4 , 3.5)
	Unprotected spring	1.8% (1 , 2.7)	0.8% (0.2 , 1.4)
	12 - Cart with small tank or drum	0.1% (0 , 0.2)	0.1% (-0.1 , 0.3)
	Tanker-truck	0.4% (0 , 0.8)	0% (0 , 0.1)
	Surface water	0.4% (0.1 , 0.7)	0.2% (0 , 0.4)

Pearson's X^2: Rao & Scott adjustment, p-value=0.00; Valid n baseline: 3016; valid n end-line: 1794

Drinking water

Households drinking water source by data collection round

		Baseline	End-line
Improved water source	Bottled water	16.7% (13.3 , 20)	29.8% (25.4 , 34.1)
	Piped water into dwelling (house)	10.9% (8.8 , 13.1)	13.3% (10.4 , 16.2)
	Piped water to yard or plot	19.7% (16.4 , 22.9)	11.1% (8.7 , 13.6)
	Public tap or standpipe	11.5% (9.2 , 13.8)	11.9% (9.3 , 14.5)
	Tube well or borehole	26.4% (22.2 , 30.7)	17% (13.2 , 20.8)
	Protected dug well	5.8% (4.2 , 7.4)	8.8% (5.9 , 11.6)
	Protected spring	2.3% (1.4 , 3.3)	3.8% (2.1 , 5.5)

Pearson's X^2: Rao & Scott adjustment, p-value=0.00; Valid n baseline: 3016; valid n end-line: 1794

- The two most common sources of drinking water in PhATS project areas are **piped water and bottled water**.
- **Increase of households using bottled water** for drinking from 16.7% to 29.8% during the endline assessment.
- **91.8% households using bottled water have access to another improved water source.**

Drinking water

Drinking water cost for households using bottled water

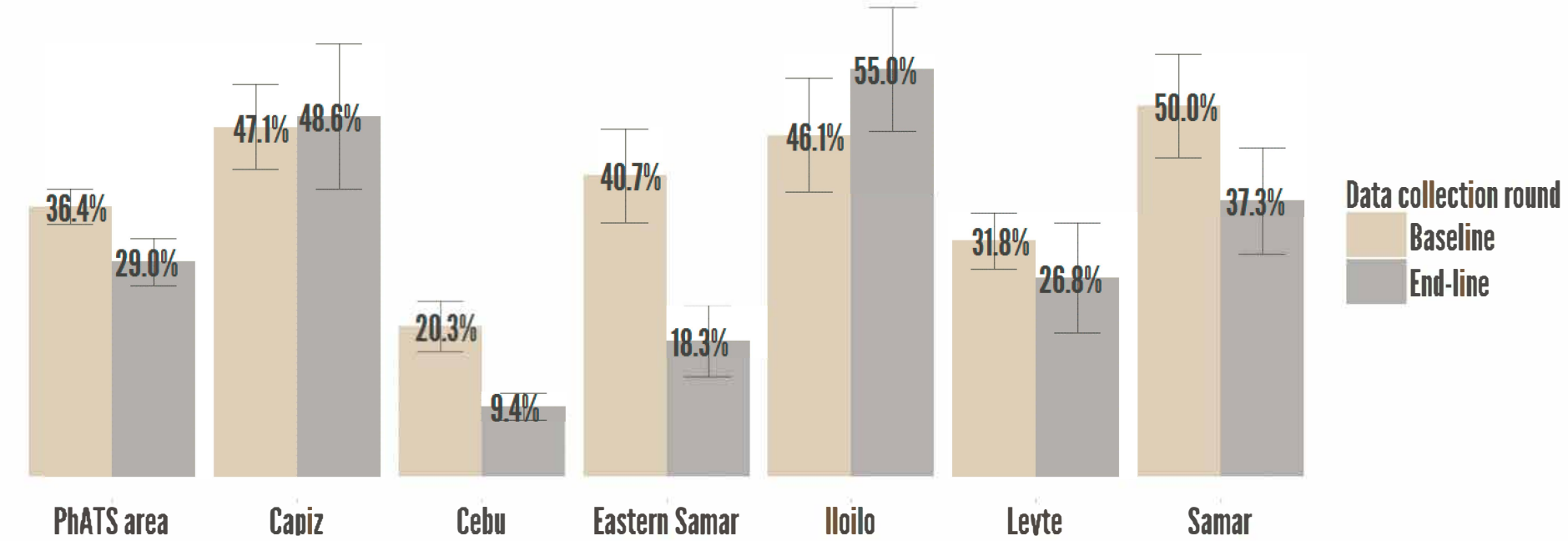
	Unimproved water source	Improved water source	Bottled water
0 PHP	92.1% (86.4, 97.8)	55.8% (48, 63.6)	0% (0, 0)
1-100 PHP	2.1% (-1.1, 5.3)	11.9% (8.7, 15.1)	23% (17.3, 28.7)
101-250 PHP	5.1% (0.1, 10.1)	22.6% (17.1, 28.1)	55% (45.9, 64.1)
251-500 PHP	0.7% (-0.7, 2)	7.4% (4.3, 10.4)	17.1% (10.3, 23.9)
501-750 PHP	0% (0, 0)	0.4% (-0.1, 0.9)	4.6% (1.6, 7.6)
751-1000 PHP	0% (0, 0)	0.8% (-0.3, 1.9)	0.3% (-0.3, 0.8)
More than 1000 PHP	0% (0, 0)	1.1% (-0.4, 2.7)	0% (0, 0)

Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n end-line: 1786

- There is a **cost difference** between households using bottled water, unimproved water source and improved water source for drinking water

Water treatment

Households that treat their drinking water by data collection round

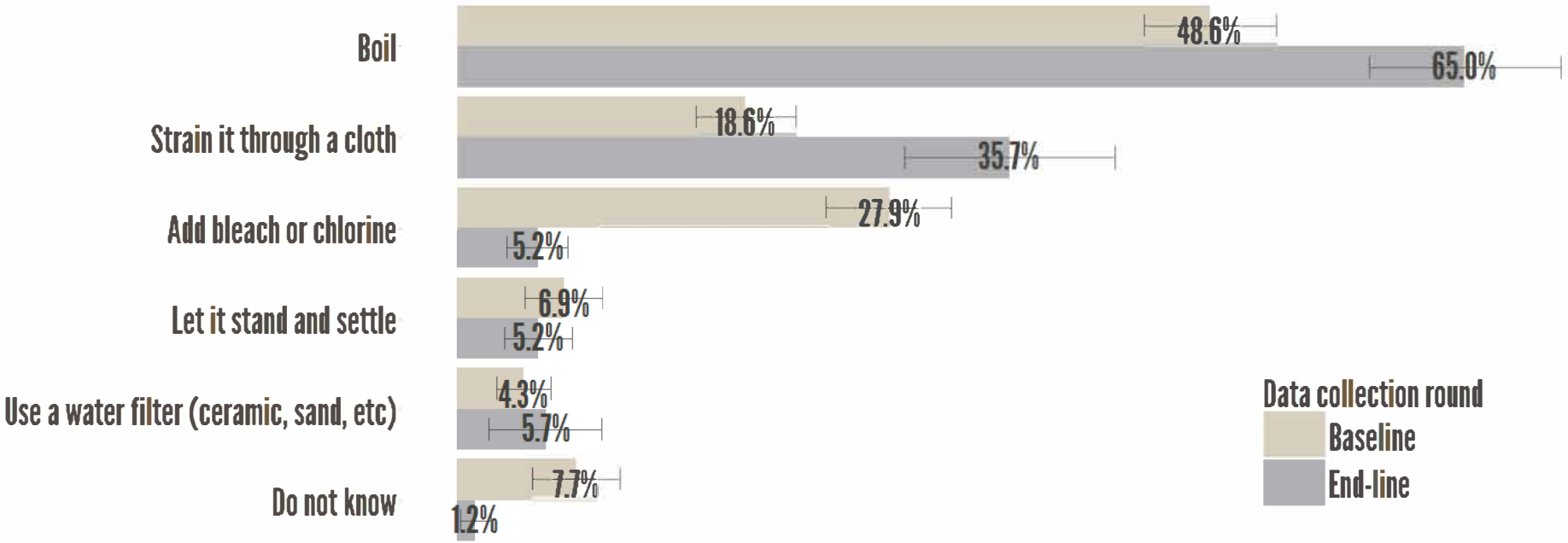


Valid n baseline: 3021 ; valid n end-line: 1794

Decrease of households proportion treating the drinking water

Water treatment

Type of treatment used among households treating their drinking water by data collection round

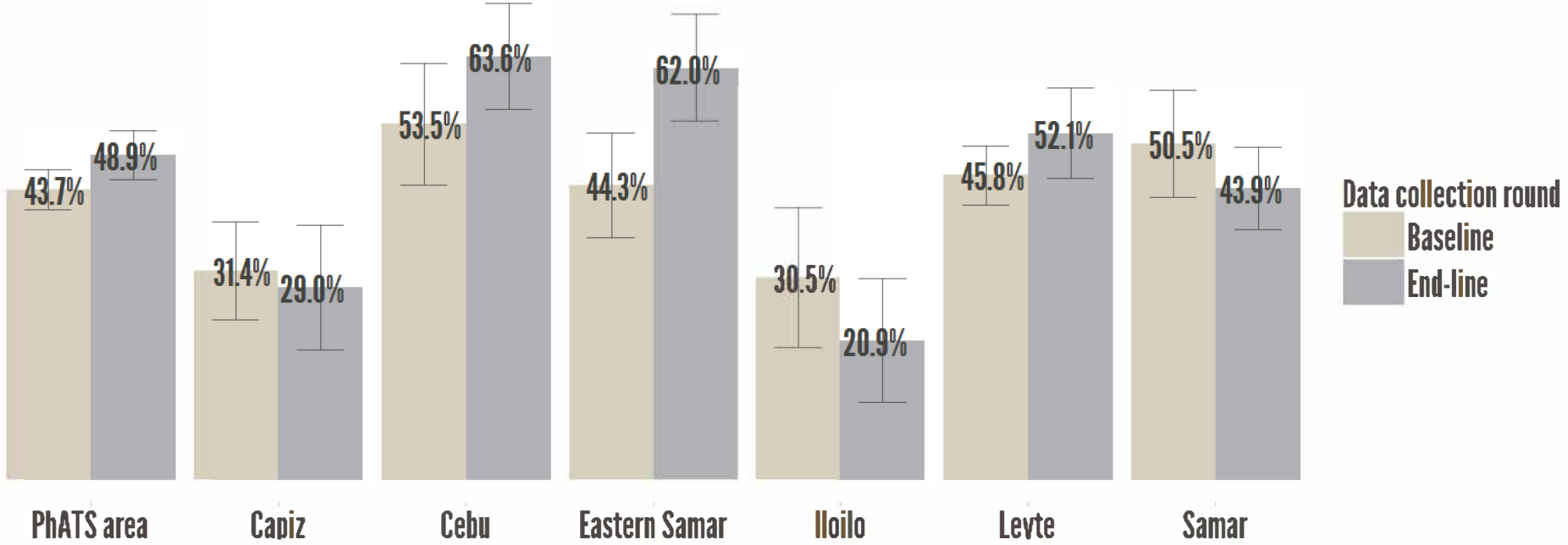


Valid n baseline: 1167 ; valid n end-line: 606

- **Increase of water treatment by boiling and filtration with clothes**; 88.7% of households using filtration with fabric do not use any other method.
- Decrease water treatment using chlorine or bleach.
- In PhATS Area, 71.4% of households treating their water are using adequate treatment methods.

Other water source of water

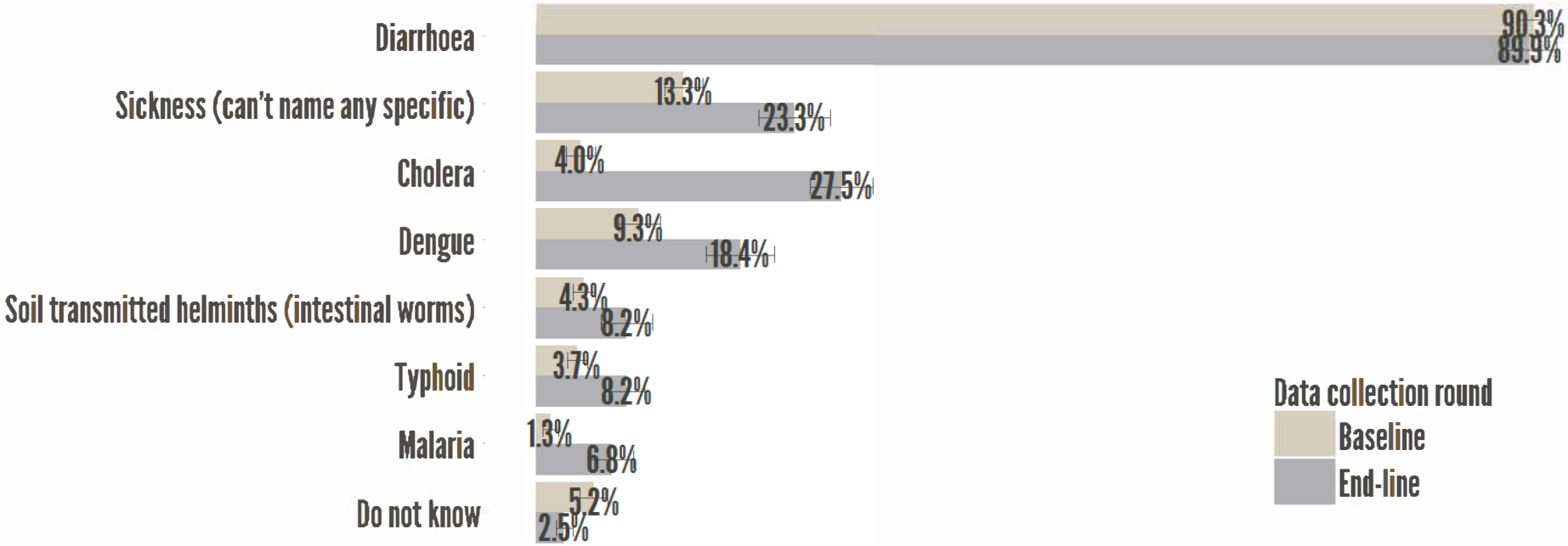
Households having a second source for non drinking purposes by data collection round



Valid n baseline: 3019 ; valid n end-line: 1794

Unsafe water risks

Perception of the respondents on the risk of unsafe water by data collection round



Valid n baseline: 3025 ; valid n end-line: 1794

- Overall, general increase in the number of answers given by each respondent.

Summary

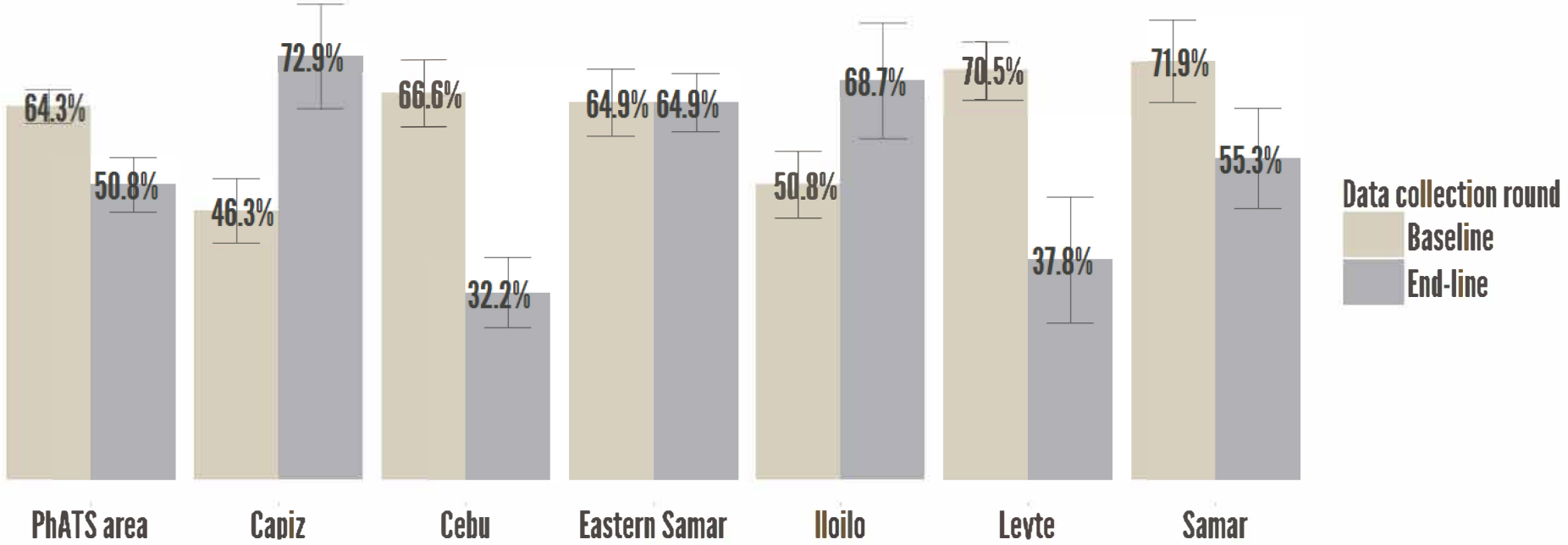
WATER SUPPLY

Households accessing improved water source for drinking	
Use of bottle water	
Use of piped water	
Households that treat their drinking water	
Household using another source of water for washing / cleaning	
Perception of the respondents on the risk of unsafe water	

Hygiene and Health

WASH message

Respondents that received a WASH message during the last 6 months by data collection round



Valid n baseline: 3004 ; valid n end-line: 1781

- Overall, decrease in respondents proportion reporting having received a WASH message.

WASH message

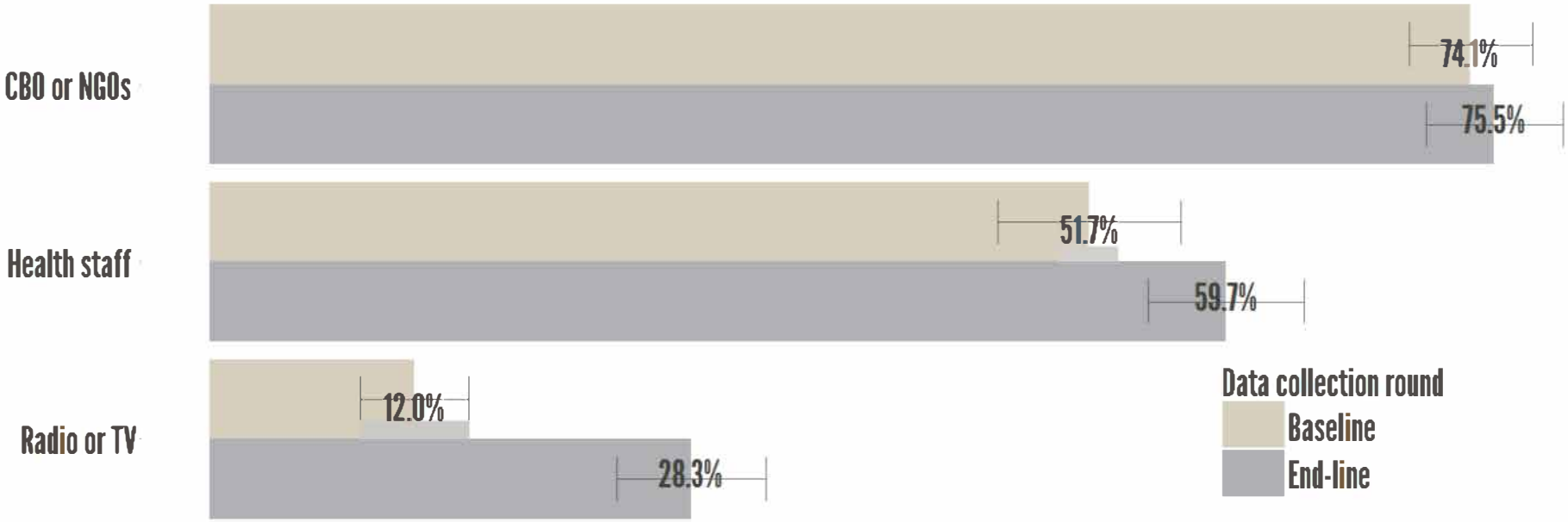
Type of WASH message among respondent that received a WASH message (by data collection round)

Valid n baseline: 1863 ; valid n end-line: 1010

- Increase in the proportion of respondents that received a message on the topic of Solid waste management, Safe disposal of human excreta, environmental and domestic hygiene and hand-washing.

WASH message

Origin of the WASH message received by respondents by data collection round



Valid n baseline: 1863 ; valid n end-line: 1010

- Increase in respondent proportion that received WASH messages coming from Radio and TV

Hand washing

Observed households having a hand washing facility with water and soap at the assessment time (by data collection round)

	Baseline	End-line
Handwashing facility with Water & Soap	79.9% (77.4 , 82.3)	84.7% (82.1 , 87.2)
Handwashing facility with Water without Soap	5.4% (4.3 , 6.4)	4.3% (2.4 , 6.3)
Handwashing facility without Water and Soap	4.6% (3.6 , 5.6)	4.2% (3 , 5.4)
No Handwashing facility	10.2% (8.1 , 12.3)	6.8% (5.2 , 8.4)

Pearson's X^2: Rao & Scott adjustment, p-value=0.414; Valid n baseline: 2713; valid n end-line: 1658

- No significant differences between baseline and endline.

Hand washing

Frequency of hand-washing reported by respondents in the last 24 hours by data collection round

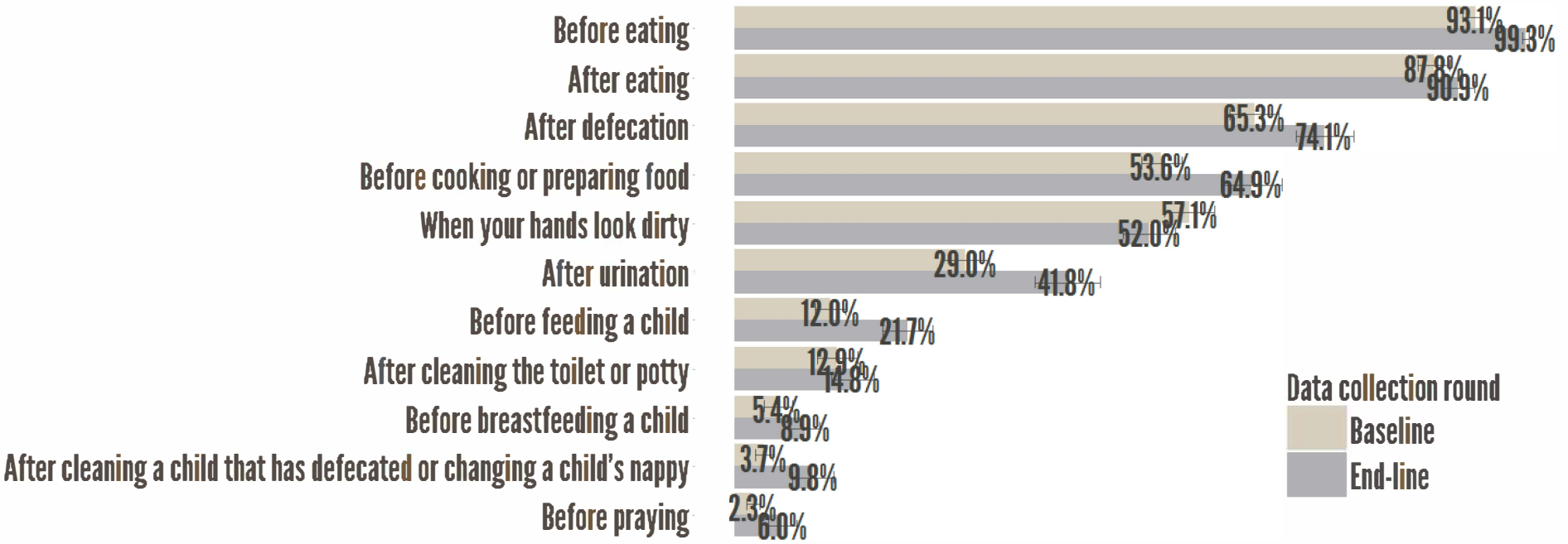
	Baseline	End-line
0 - 2 times	1.4% (0.9 , 2)	1.5% (0.7 , 2.3)
3 - 4 times	29.5% (27 , 31.9)	18.4% (15.6 , 21.1)
5 - 6 times	33% (30.7 , 35.3)	35.8% (31.6 , 40)
7 times and more	36.1% (33.1 , 39)	44.3% (40.1 , 48.6)

Pearson's X^2: Rao & Scott adjustment, p-value=0.000; Valid n baseline: 3025; valid n end-line: 1794

- Increase in reported frequency of handwashing between baseline and end-line.

Hand washing

Respondents hand-washing pratices by data collection round

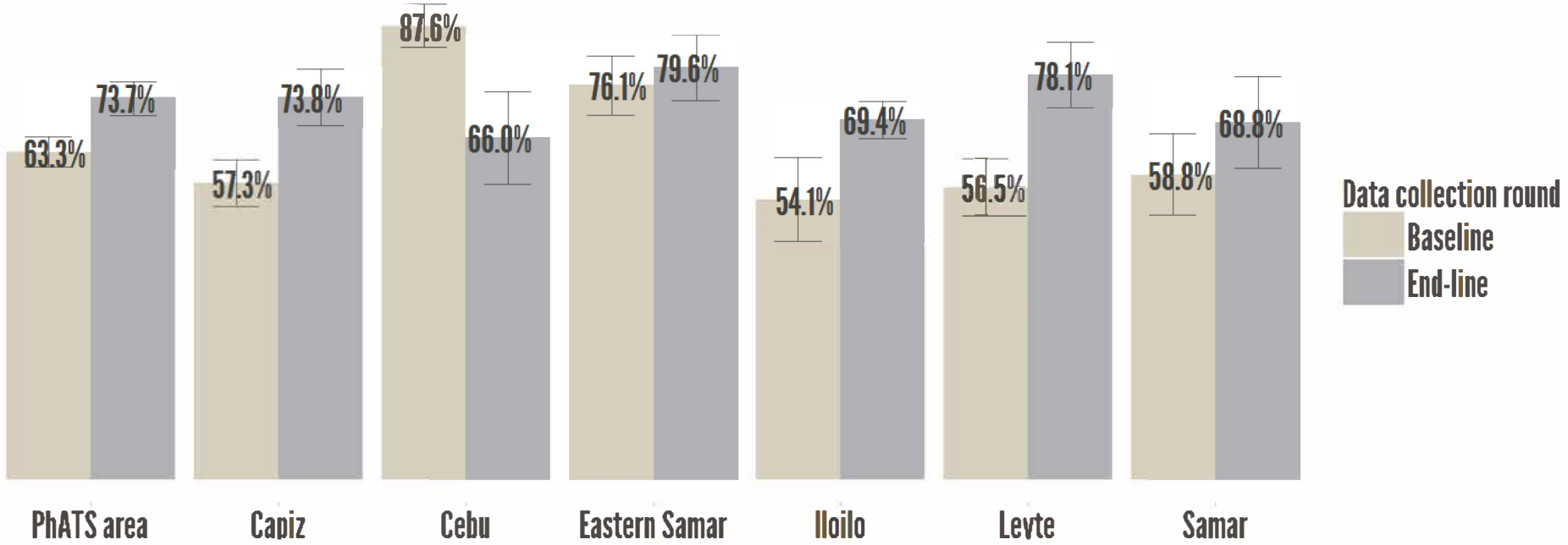


Valid n baseline: 3022 ; valid n end-line: 1792

- Decrease in respondents proportion reporting washing hands when their hands look dirty.

Hand washing

Respondents that mentioned hand washing both before eating and after defecating by data collection round

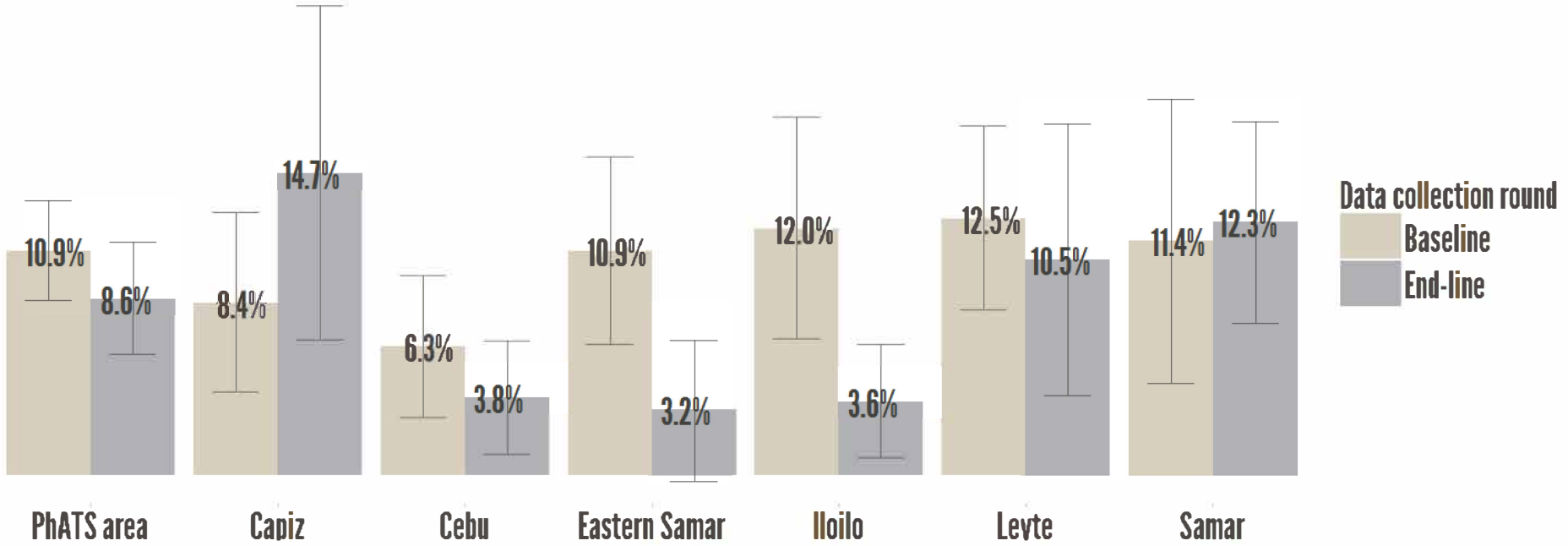


Valid n baseline: 3022 ; valid n end-line: 1792

- General increase of reported handwashing before eating and after defecating
- Decrease in Cebu PhATS area.

Health

Households with children under 5 that was sick from diarrhoea during the past 2 weeks by data collection round



Valid n baseline: 1242 ; valid n end-line: 753

- No significant change in proportion of households with a child under 5 sick from diarrhoea during the past 2 weeks in the PhATS area
- Decrease in proportion of households with a child under 5 sick from diarrhoea in Iloilo

Summary

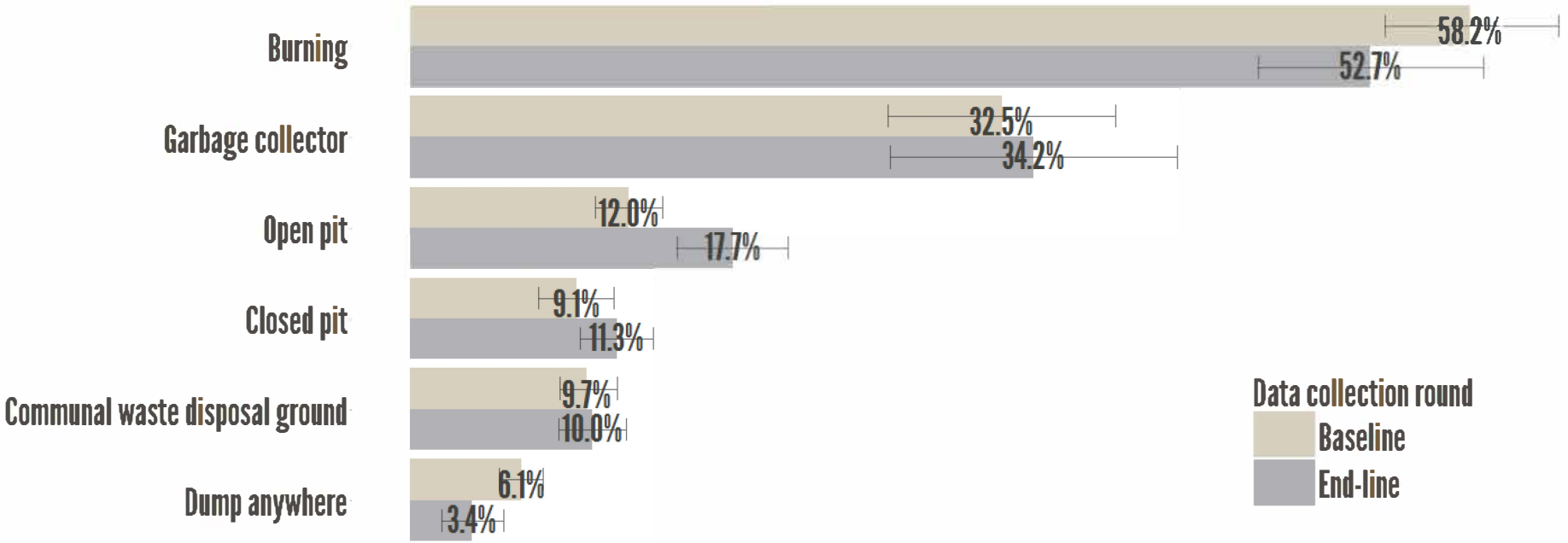
HYGIENE AND HEALTH

Respondents that received a WASH message during the last 6 months	
Origin of the WASH message received by respondents	
Households having a hand washing with water and soap at the assessment time	
Frequency of hand-washing by respondents	
Importance of handwashing before feeding the children	
Respondents that mentionned hand washing both before eating and after defecating	
Households with children under 5 that was sick from diarrhoea during the past 2 weeks	

Solid Waste Disposal

Garbage disposal

Household garbage disposal pratices by data collection round



Valid n baseline: 3025 ; valid n end-line: 1794

- Increase of disposal in open pit
- Decrease of households that reported dumping the garbage anywhere.

Sanitation

Toilet facilities

Toilet facility by data collection round

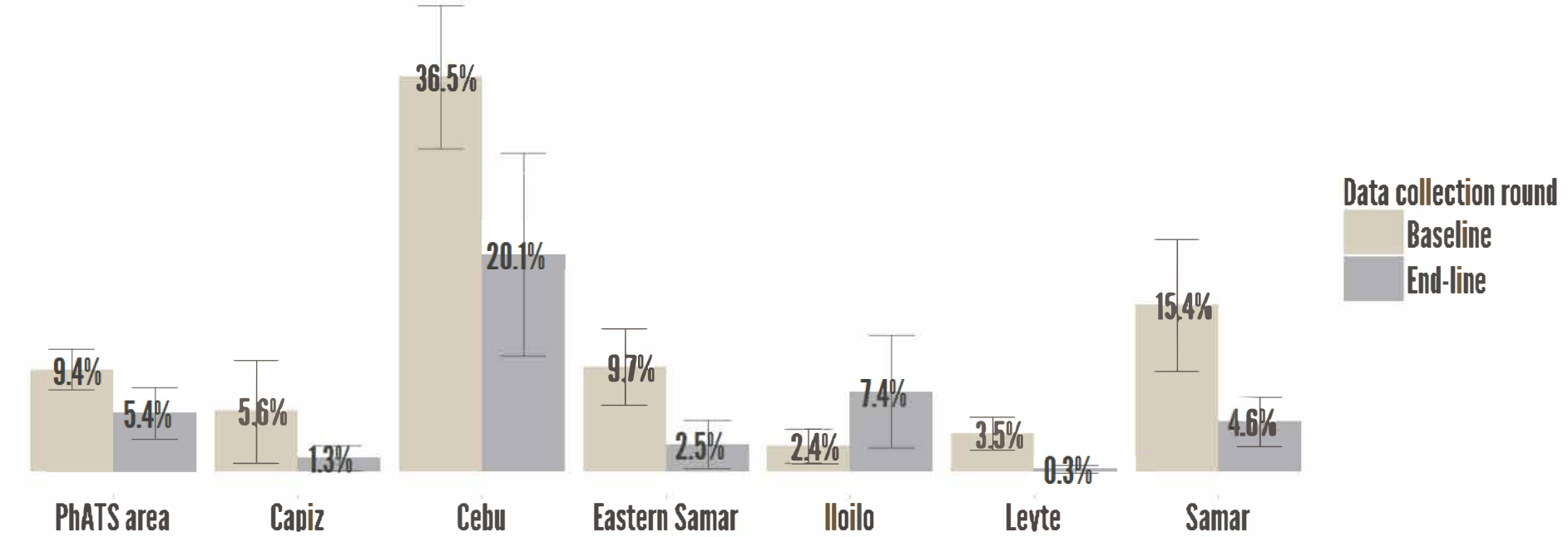
		Baseline	End-line
Improved sanitation	Flush or pour flush to septic tank	62.6% (59 , 66.3)	76.1% (71.9 , 80.3)
	Flush or pour flush to pit latrine	17.2% (14.8 , 19.5)	10.8% (8.8 , 12.8)
	Ventilated Improved Pit (VIP) Latrine	2.4% (1.6 , 3.1)	1.7% (1 , 2.4)
	Composting toilet	0.5% (-0.2 , 1.2)	0.3% (0 , 0.5)
	Pit latrine with slab	4.5% (3.4 , 5.6)	2.2% (1.3 , 3.1)
Unimproved sanitation	Pit latrine without slab or open pit	2% (1.2 , 2.8)	1.1% (0.4 , 1.7)
	Hanging toilet or hanging latrine	0.6% (0.2 , 1.1)	1.4% (-0.1 , 3)
	Bucket (excreta collected from floor in bucket)	0.1% (0 , 0.3)	0.2% (-0.1 , 0.4)
	Flush or pour flush to elsewhere	0.6% (0.3 , 1)	0.8% (0.1 , 1.5)
	No facilities bush or field or river or open	9.4% (7.3 , 11.5)	5.4% (2.8 , 8.1)

Pearson's X^2: Rao & Scott adjustment, p-value=0.000; Valid n baseline: 2985; valid n end-line: 1785

- Increase of flush toilets to sewer system - Decrease of flush toilets to pit latrines and pit latrines without slab.
- **91.1% of households have access to an improved toilet facility during the end-line**

Toilet facilities

Type of toilet facilities - No facilities by data collection round

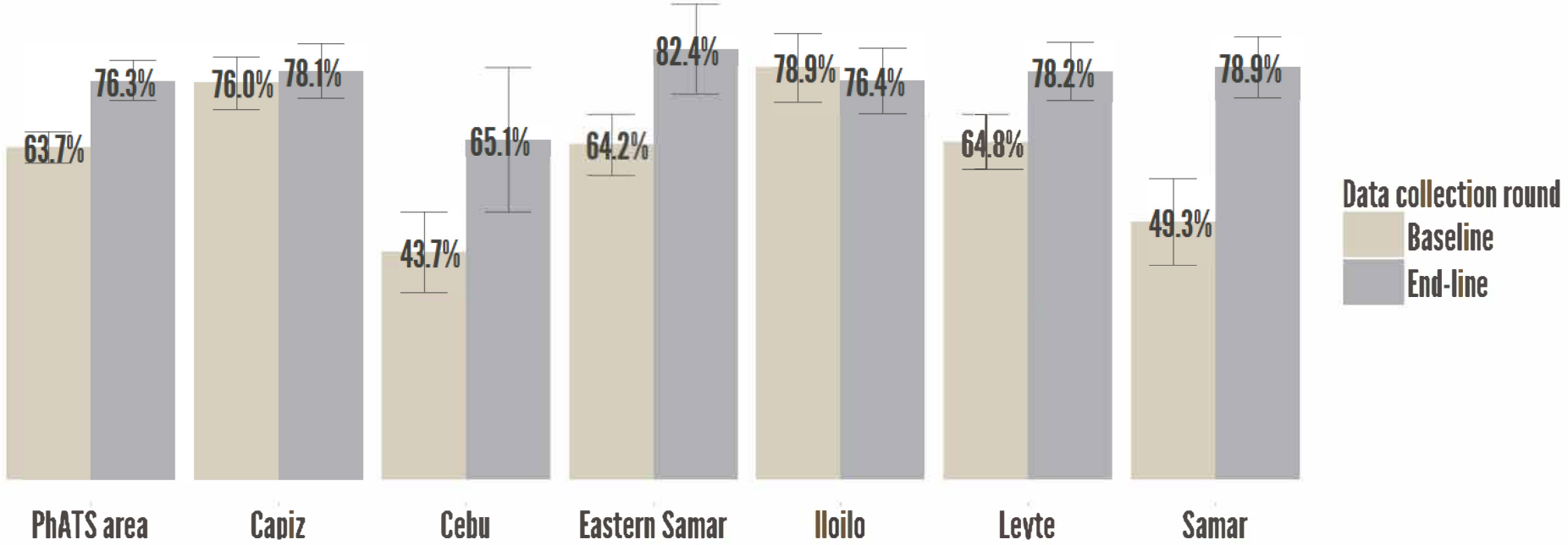


Valid n baseline: 2985 ; valid n end-line: 1785

- Decrease of households without toilet facilities in Cebu, Eastern Samar, Leyte and Samar.

Toilet facilities

Households that have access to an improved (non-shared) sanitation facility by data collection round

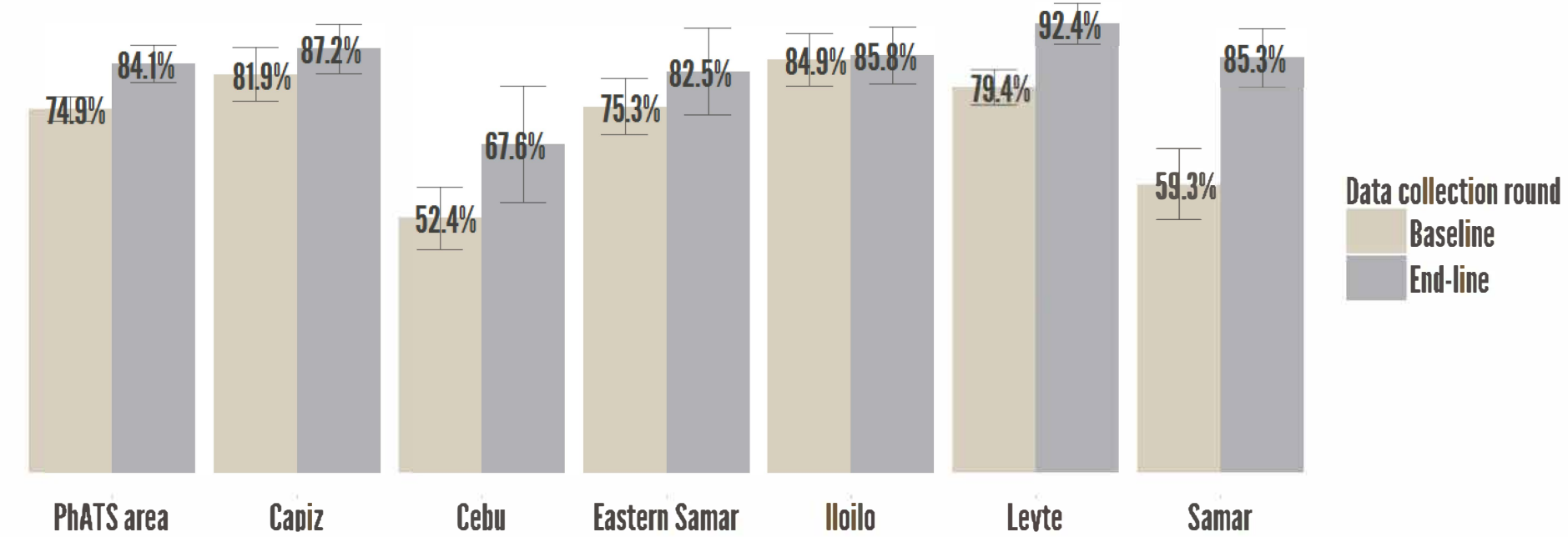


Valid n baseline: 2846 ; valid n end-line: 1741

- Increase in the proportion of households that have access to an improved (non-shared) toilet facility in the PhATS area.

Toilet facilities

Households that own an improved sanitation facility by data collection round



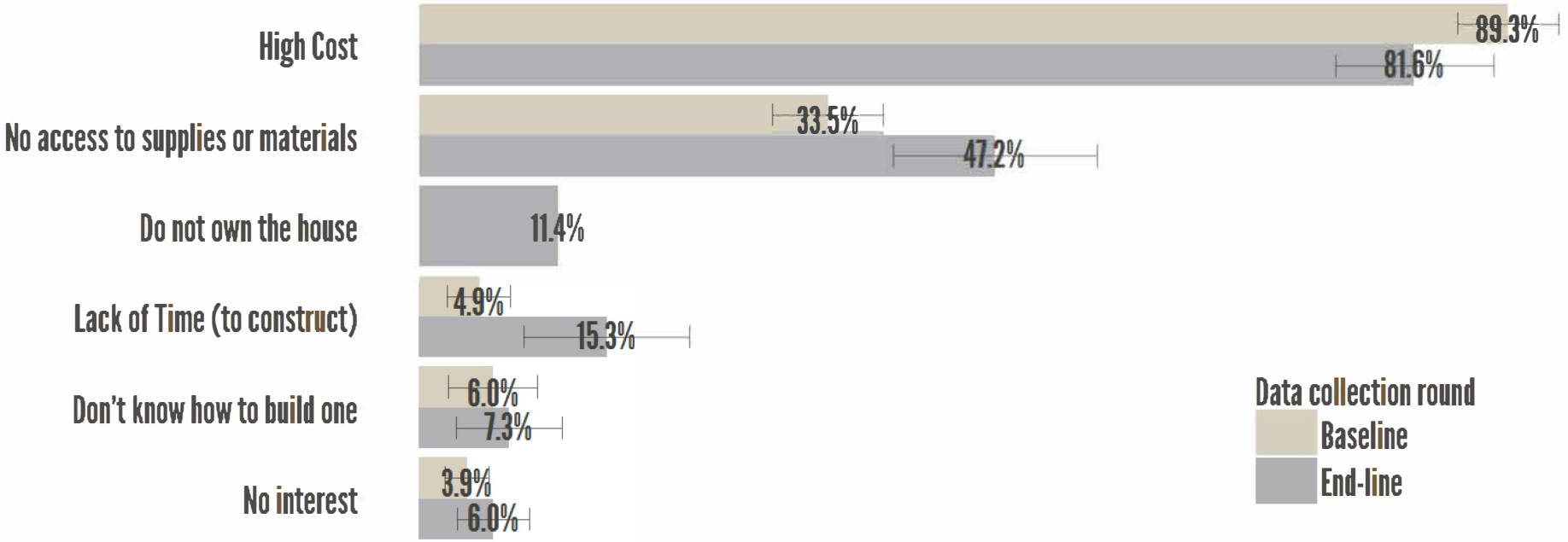
Valid n baseline: 3017 ; valid n end-line: 1793

- Increase of households that own an improved toilet facilities in the PhATS area.
- Significant increase in the proportion of households that own an improved toilet facilities in Samar and Leyte.

(Improved toilets facility: Flush to sewer system, Flush to septic tank, Flush to pit latrine, VIP latrine, Pit latrine with slab, Composting toilets)

Toilet facilities

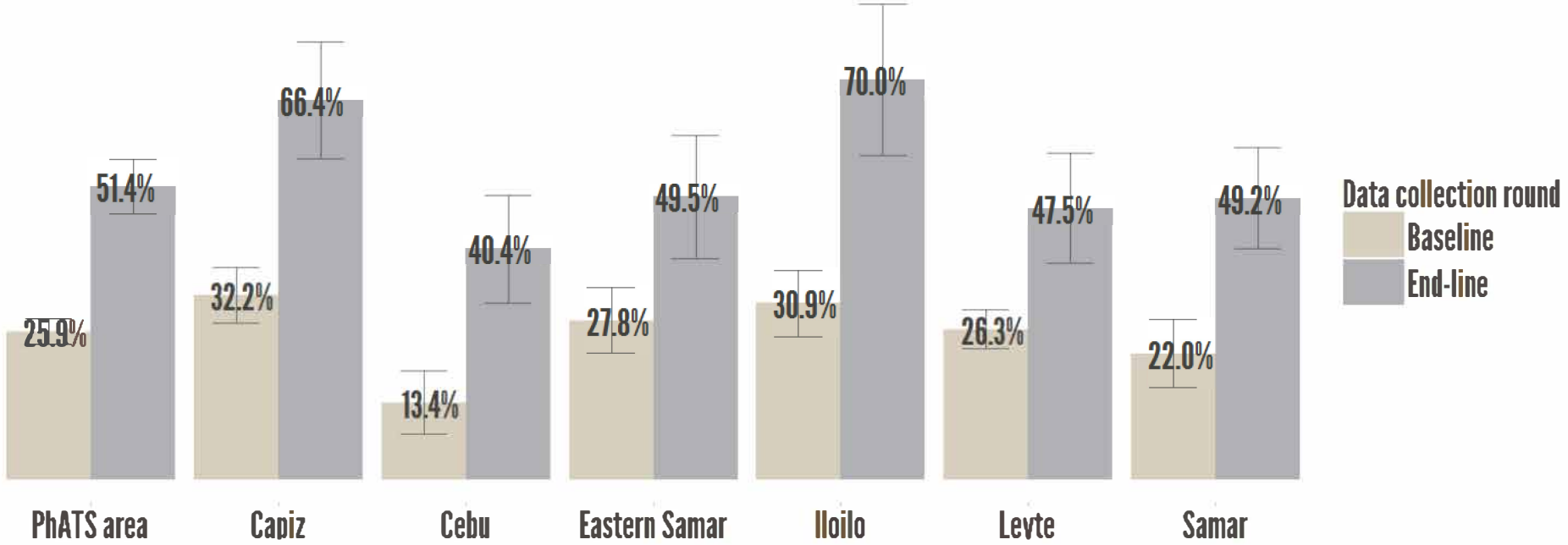
Among households that do not own the toilet facility, main barriers for households to have their own toilets by data collection round



Valid n baseline: 712 ; valid n end-line: 289

ZOD program

Households that received information about a zero open defecation (ZOD) program or rewards by data collection round



Valid n baseline: 3025 ; valid n end-line: 1794

- Increase in proportion of respondents receiving information about ZOD program

Open defecation

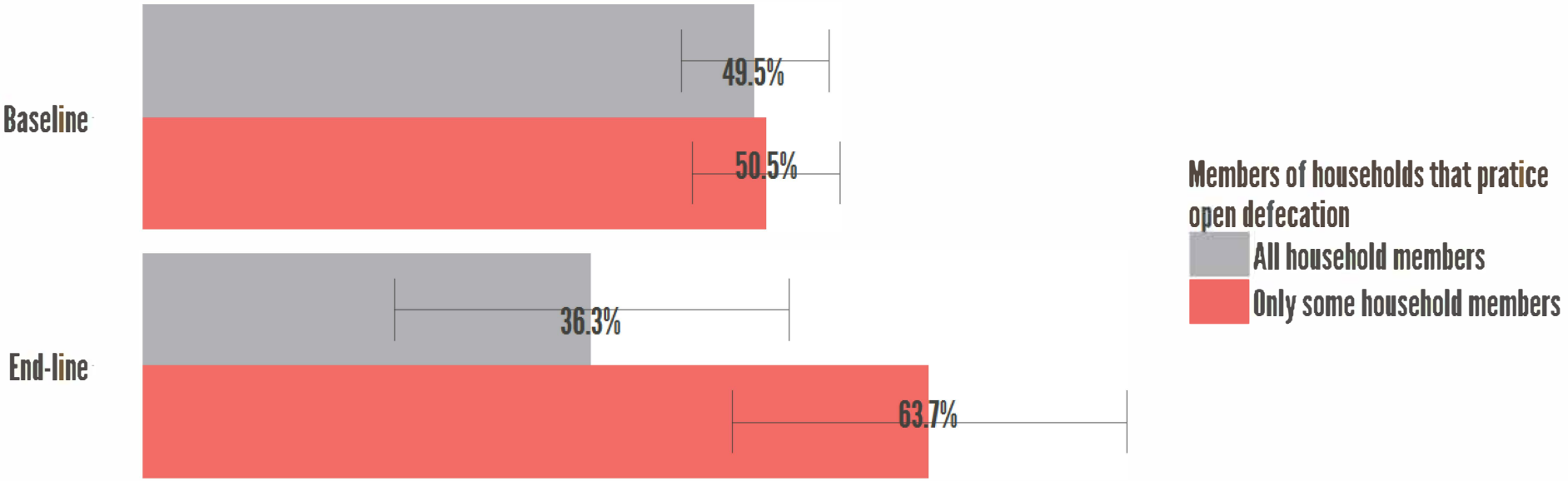
Households practicing open defecation by data collection round

Pearson's X^2: Rao & Scott adjustment, ***p-value=0.164****; Valid n baseline: 3000; valid n end-line: 1788*

No change in proportion of households praticing open defecation

Open defecation

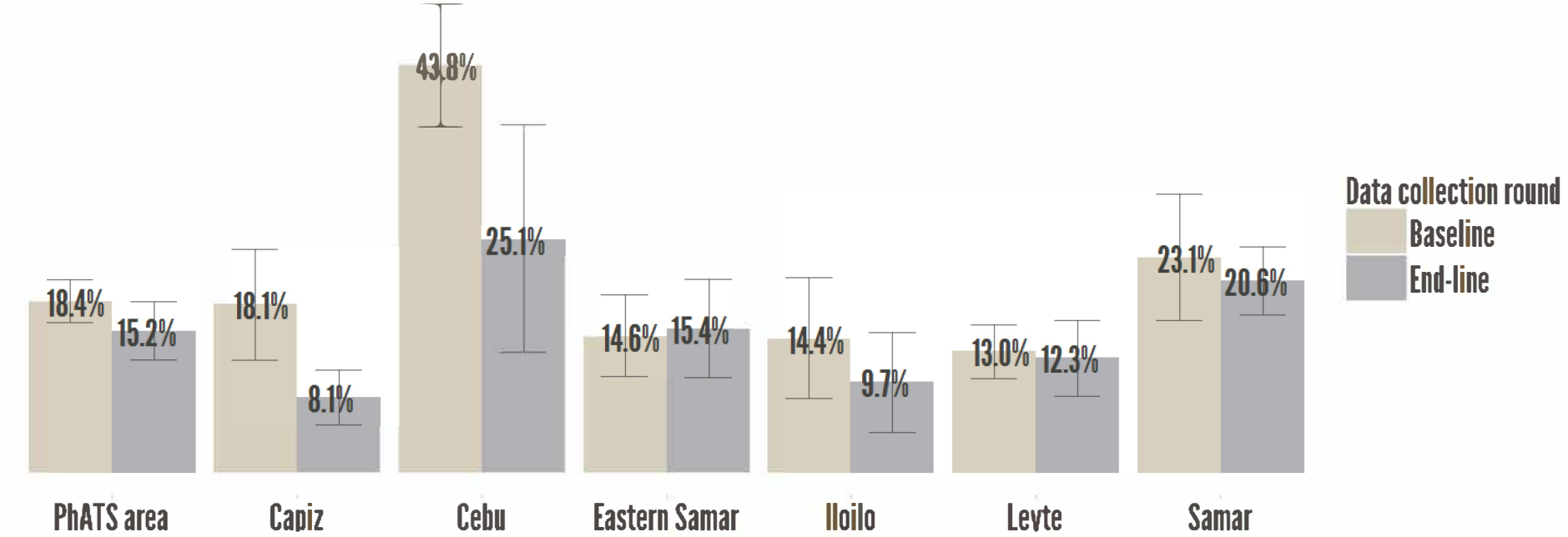
Members of households that pratice open defecation by data collection round



Pearson's X^2: Rao & Scott adjustment, p-value=0.144; Valid n baseline: 547; valid n end-line: ***244***

Open defecation

Households practicing open defecation by data collection round and by province



Valid n baseline: 3000 ; valid n end-line: 1788

- Decrease in proportion of households practicing open defecation in Cebu and Capiz.

Open defecation

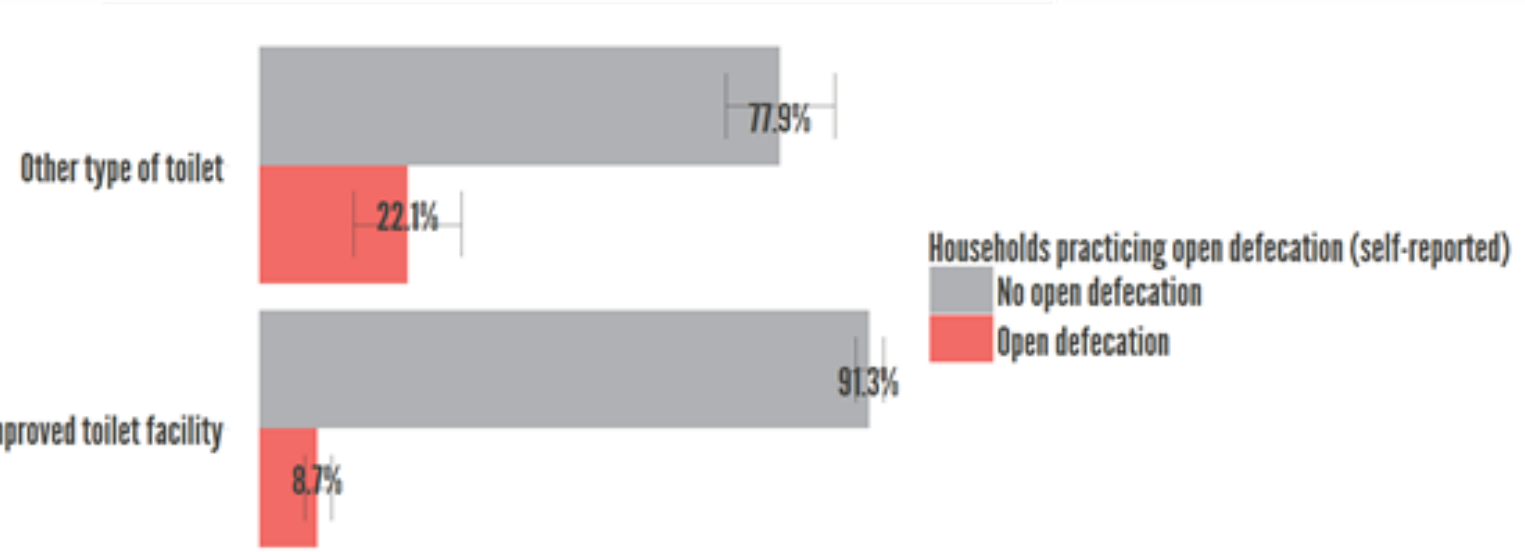
Households practicing open defecation by households living in ZOD certified barangays

Pearson's X^2: Rao & Scott adjustment, p-value=0.012; Valid n end-line: 1788

- Statistic test suggest a difference between ZOD barangays and other barangays for rate of open defecation

Open defecation

Households practicing open defecation (self-reported) by use of improved / unimproved toilet facility *(households without toilet excluded)*



Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n end-line: 1655

- Rate of open defecation lower for households using an improved toilet facility.

Open defecation

Most people in my community believe that defecating in the open is acceptable / I believe that defecating in the open is acceptable

Average from likert scale measurement (strongly agree = 5 to strongly disagree = 1)

OD acceptable in household; t = -1.0769, df = 507, p-value = 0.2821 / OD acceptable in community; t = -2.3426, df = 507, p-value = 0.01954

- No difference of perceptions at household level.
- Difference of perception in community.

Open defecation

Perceived rate of open defecation in the community by data collection round

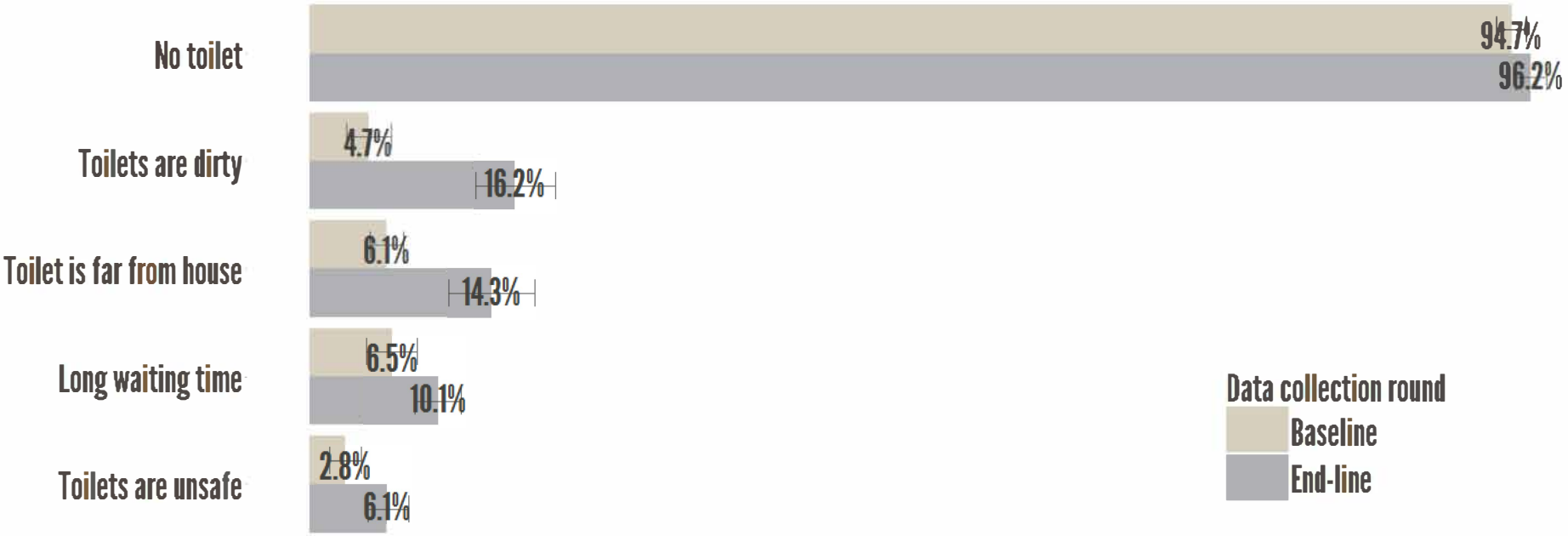
	Baseline	End-line
0%	9.7% (7.6 , 11.9)	27.2% (22.7 , 31.6)
1 - 20%	55.5% (52 , 59.1)	47.6% (43.1 , 52)
21-40%	15.8% (13.6 , 18)	9.1% (6.6 , 11.6)
41-60%	10.2% (8.6 , 11.8)	6.7% (4.7 , 8.8)
61-80%	7.5% (5 , 10.1)	6.7% (4.5 , 8.9)
81-100%	1.2% (0.6 , 1.9)	2.7% (0.5 , 4.9)

Pearson's X^2: Rao & Scott adjustment, p-value=0.000; Valid n baseline: 2862; valid n end-line: 1682

- The perceived open defecation rate in the community decreased in between baseline and end-line.
- 27.2% of respondents perceived that there is no open defecation in their community (9.7% during the baseline)

Open defecation

Main reason perceived for open defecation in the community by data collection round



Valid n baseline: 3025 ; valid n end-line: 1794

Children stool disposal

Stool disposal practise of children under 3 by data collection round

		Baseline	End-line
Sanitary disposal	Child used toilet	22.1% (18.3 , 25.9)	20.2% (15.4 , 25)
	Put or rinsed into toilet	8.1% (5.7 , 10.5)	9% (3.7 , 14.3)
	Buried	17.1% (13.5 , 20.6)	16.8% (12.1 , 21.5)
Unsanitary disposal	Put or rinsed into drain or ditch	4.8% (2.8 , 6.7)	4.7% (2.3 , 7.1)
	Thrown into garbage	37.7% (31.8 , 43.6)	38.2% (30.3 , 46.1)
	Diaper left on ground	7.3% (5.1 , 9.5)	7.5% (4.5 , 10.6)
	Not disposed or left on the ground	2.9% (1.4 , 4.3)	3.3% (-0.3 , 6.9)

Pearson's X^2: Rao & Scott adjustment, p-value=0.999; Valid n baseline: 848; valid n end-line: 445

- No changes in stool disposal practice of children under 3

Summary

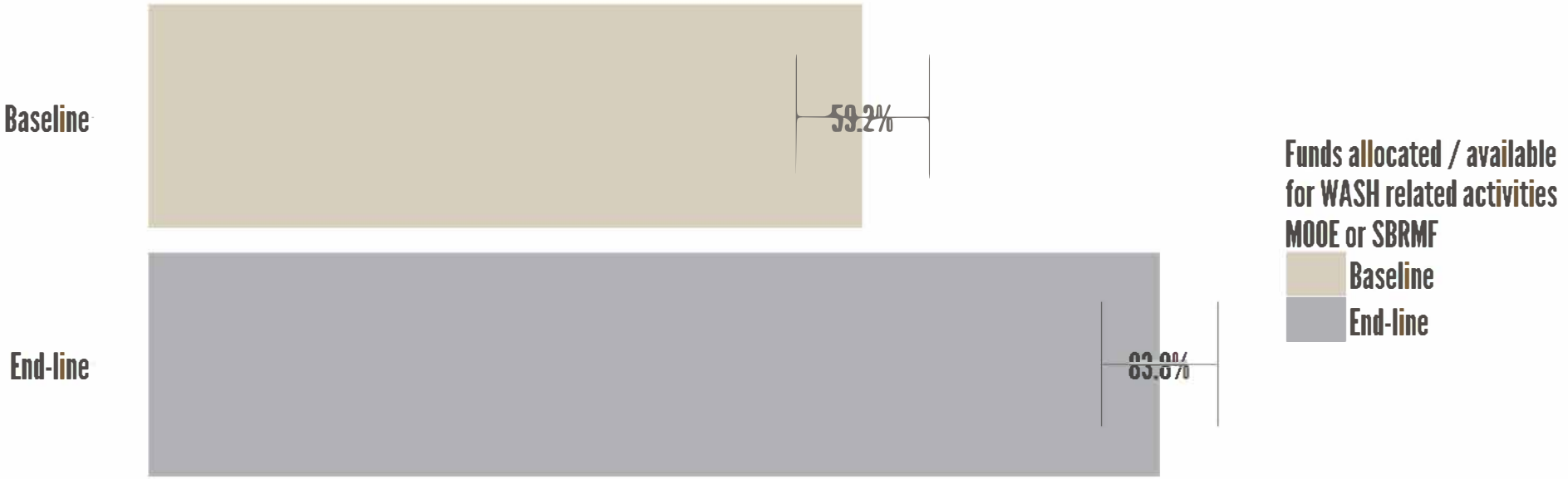
SANITATION	
Households using an improved toilet facility	
Households that own an improved sanitation facility	
Households that use an improved sanitation facility shared by less by 20 people	
Households practicing open defecation	
Households practicing open defecation (self-reported)	
Perception of households practicing open defecation	
Open defecation is acceptable in household	
Open defecation is acceptable in the community	
Perceived rate of open defecation in the community	
Households that received information about a zero open defecation (ZOD) program or rewards	
Households garbage disposal pratices	

2.2 - School survey

General

General

Funds allocated/available for water, sanitation and hygiene related activities in the Maintenance and Other Operations Expenses (MOOE) or School Building Repair and Maintenance Fund (SBRMF) by data collection round

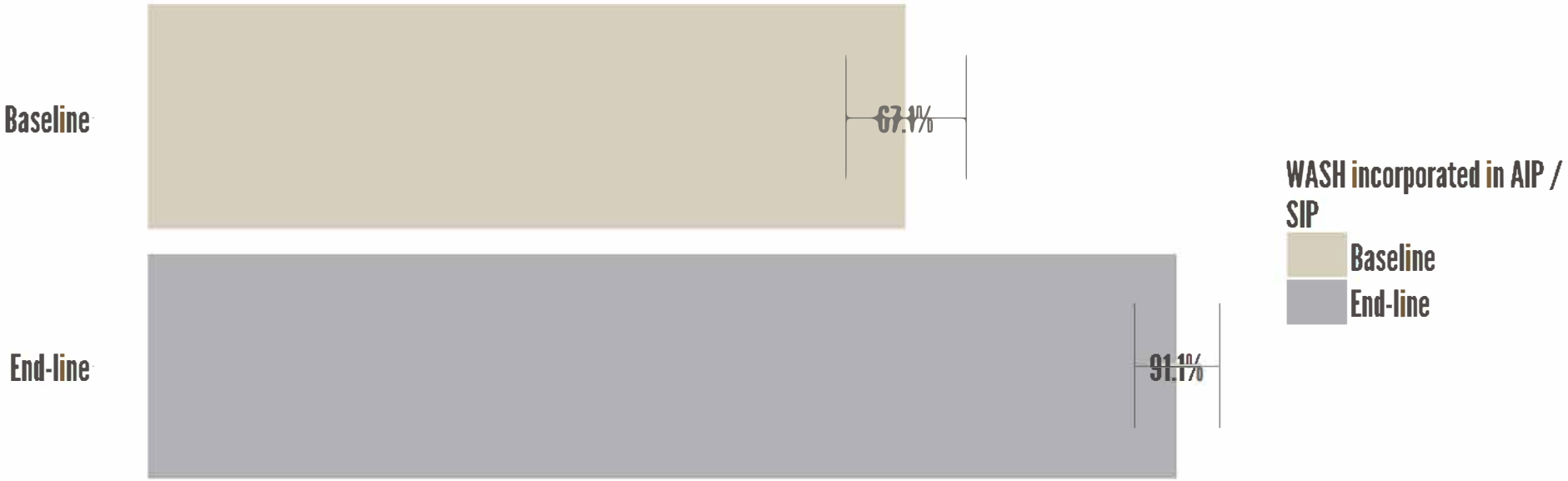


Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 179

- Increase in the proportion of schools with fund allocated for WASH

General

WASH currently incorporated in the Annual Investment Plan (AIP)/School Improvement Plan (SIP) by data collection round

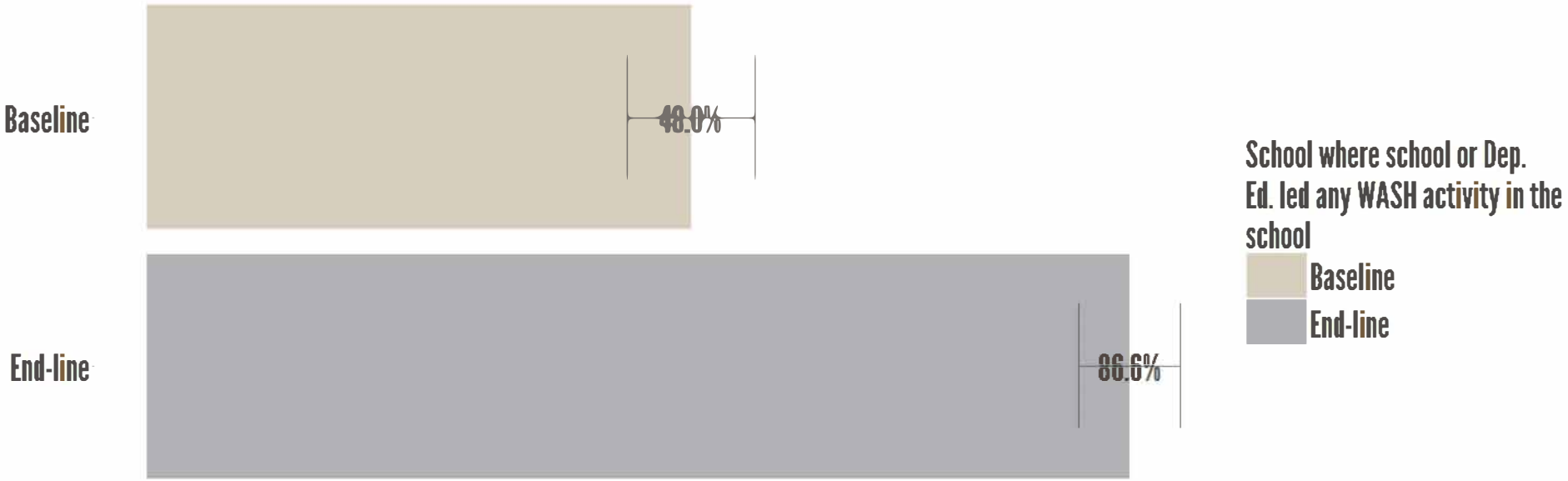


Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 240; valid n end-line: 179

- Increase in the proportion of schools incorporating WASH in AIP / SIP

WASH activity in school

Schools where school or Dep. Ed. led any water, sanitation or hygiene activity in the school by data collection round

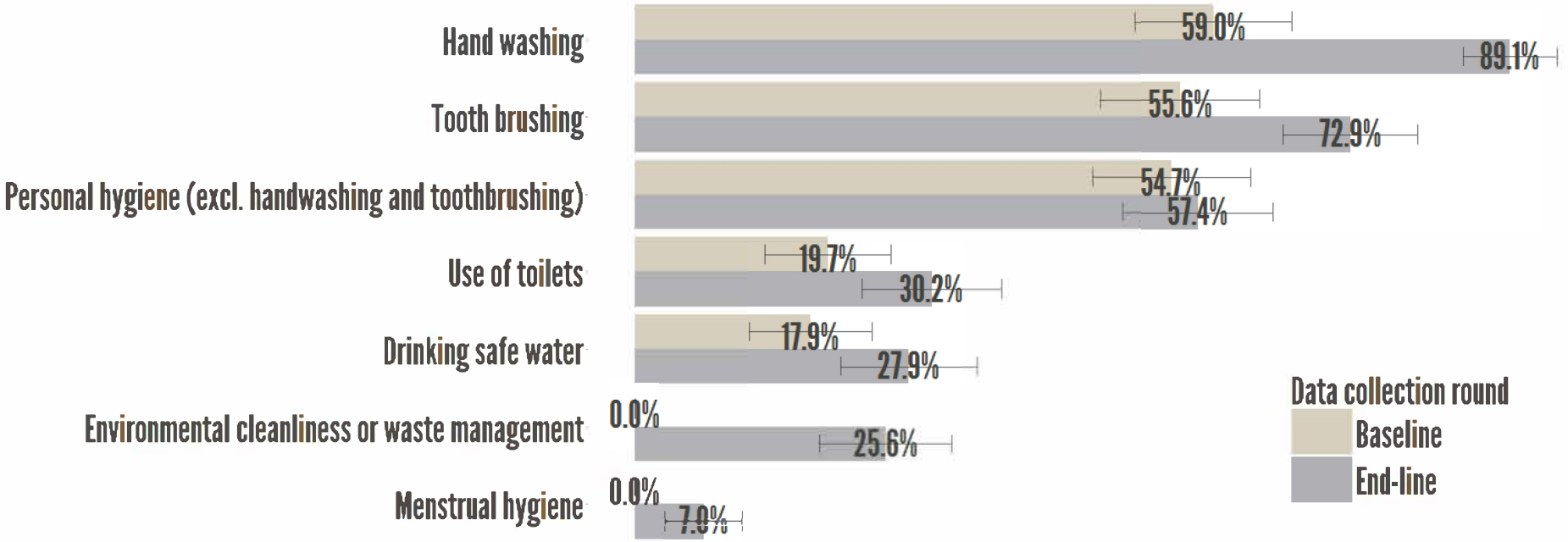


Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 244; valid n end-line: 179

- Increase in the proportion of schools where school or DepEd conducted WASH activities

WASH activity in school

Reported theme of WASH campaign by data collection round



Valid n baseline: 117 ; valid n end-line: 129

- Increase in diversity of campaign carried out in schools.
- Increase in the proportion of schools where hand washing campaign have been conducted.

Water Supply

Water supply

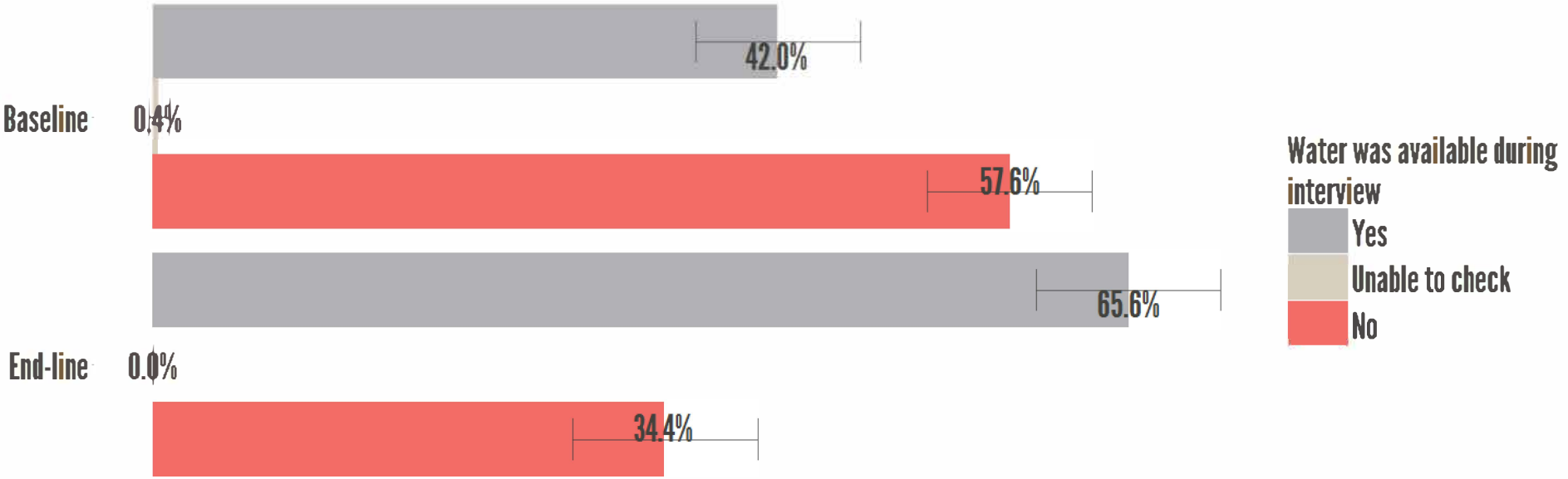
Reported drinking water availability in the school compound by data collection round

Pearson's X^2: Rao & Scott adjustment, p-value=0.001; Valid n baseline: 245; valid n end-line: 180

- Increase of water availability in school reported by key informants.

Water supply

Observed availability of water during the assessment by data collection round

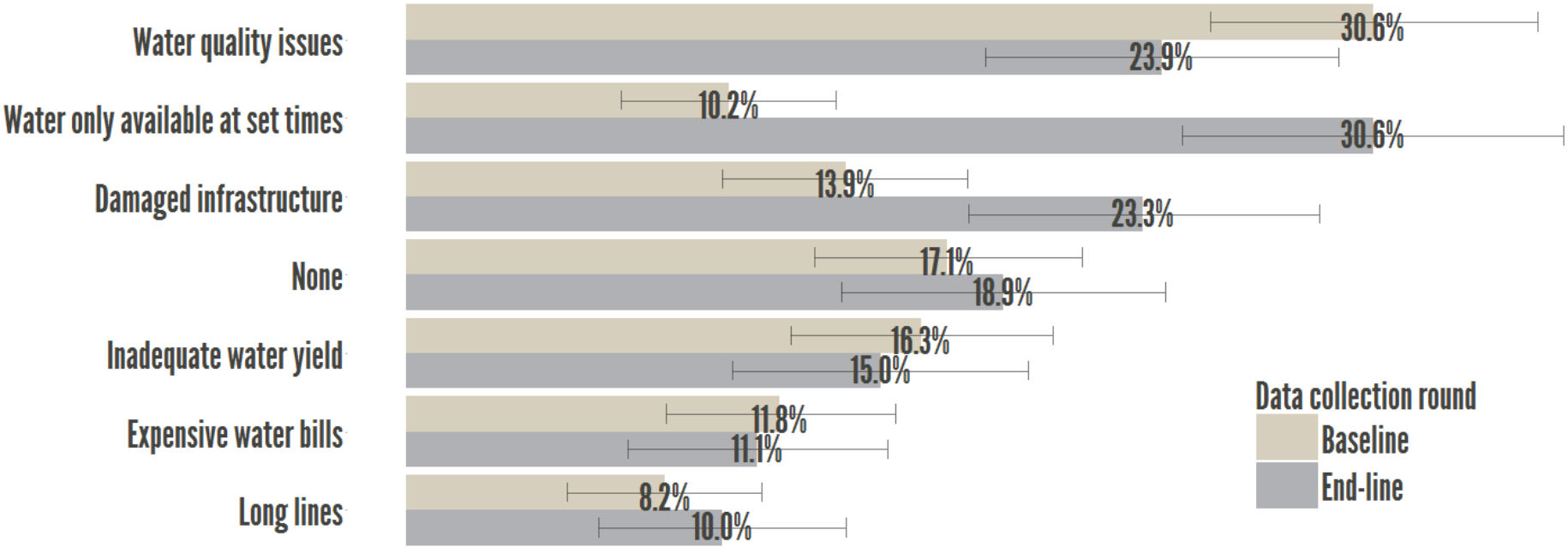


Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools having water during the assessment time

Water supply

Reported issue with accessing drinking water by data collection round



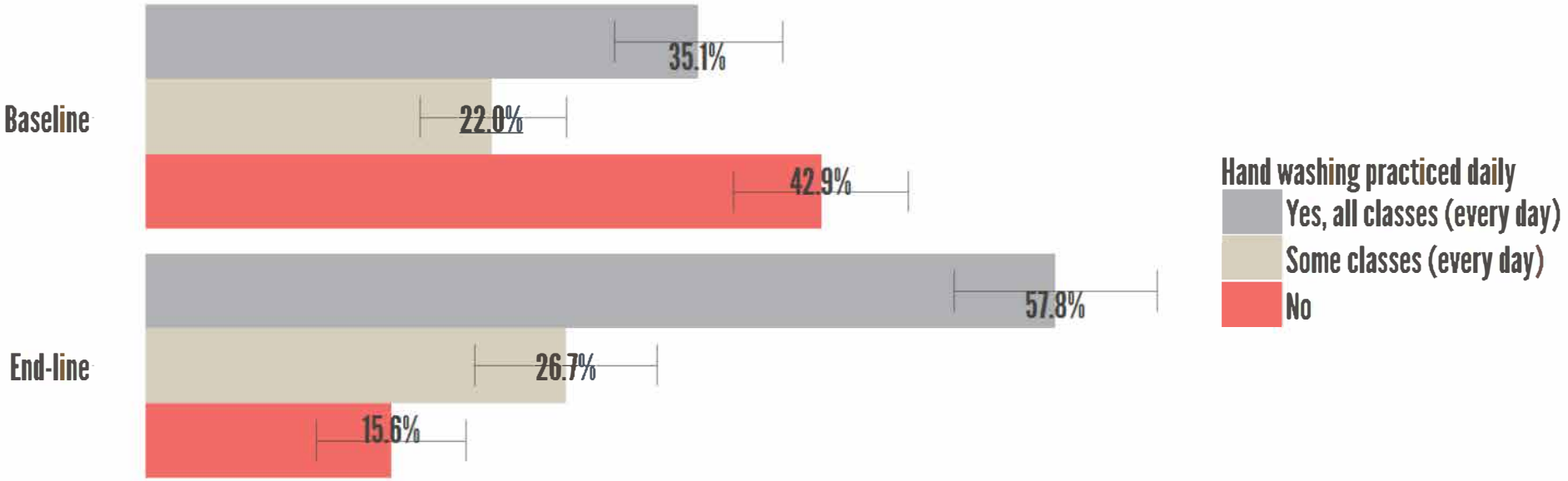
Valid n baseline: 245 ; valid n end-line: 180

- Main drinking water issues reported: are quality, availabilty and damage infrastructure

Hygiene

Hand washing

Reported practice of daily hand washing practice in school by data collection round



Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools where daily handwashing practice was reported

Hand washing

Type of hand washing facility by data collection round

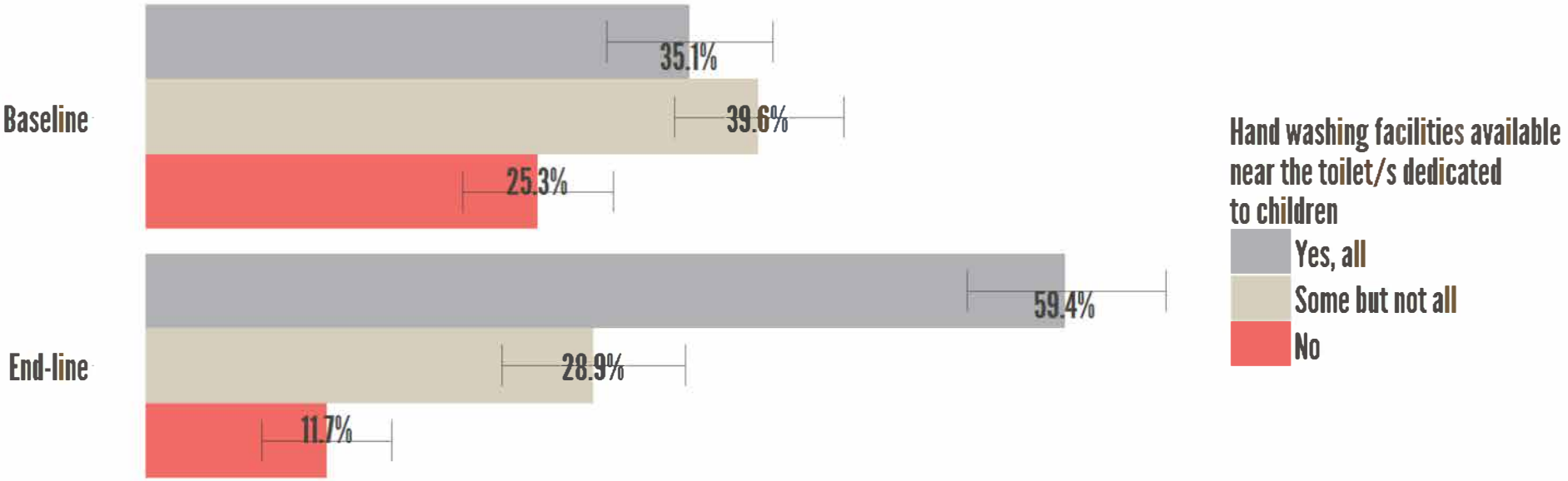
	Baseline	End-line
Tap connected to piped water	56.8% (50.4 , 63.3)	65.4% (58.8 , 72)
Bucket or container	37.7% (31.4 , 44)	22% (16.2 , 27.8)
Locally made	2.2% (0.3 , 4.1)	12.6% (8 , 17.2)
Other	3.3% (1 , 5.6)	0% (0 , 0)

Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 183; valid n end-line: 159

- Decrease in the proportion of schools having only buckets as hand-washing facility
- Increase in the proportion of schools having locally made facility as hand-washing facility

Hand washing

Observed hand washing facilities available near the toilets dedicated to children by data collection round

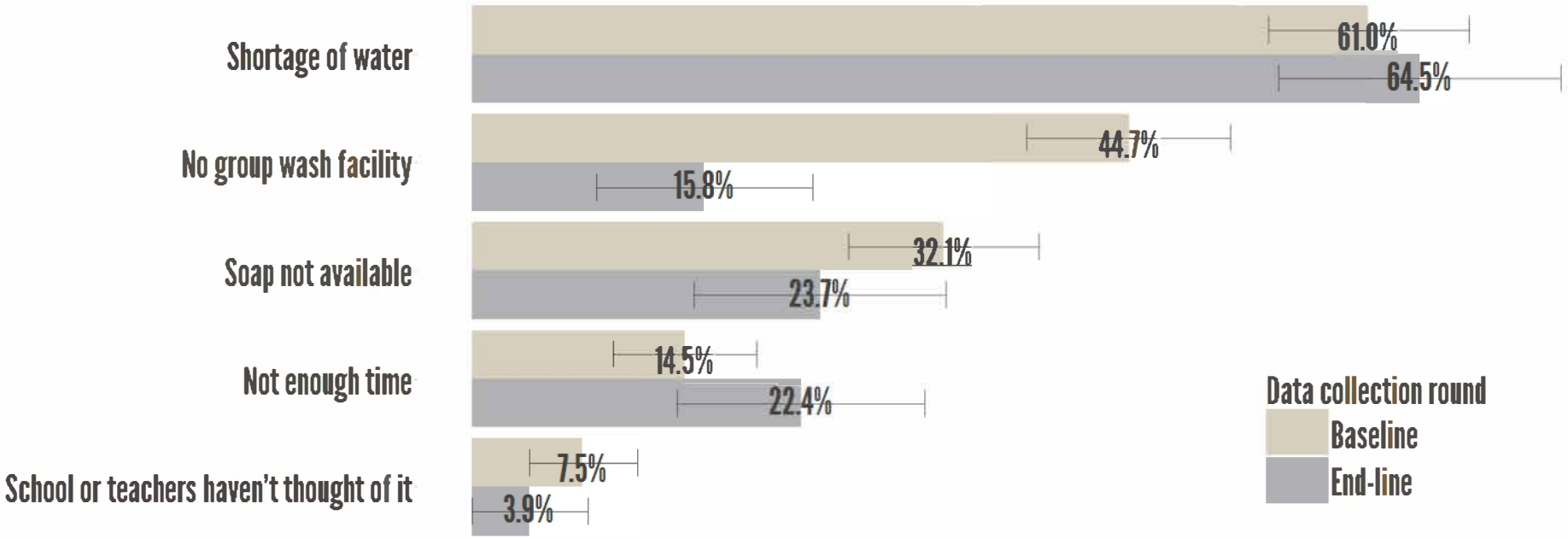


Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools where hand-washing facilities near the toilets were observed

Hand washing

Barriers to practice group hand-washing with soap daily by data collection round

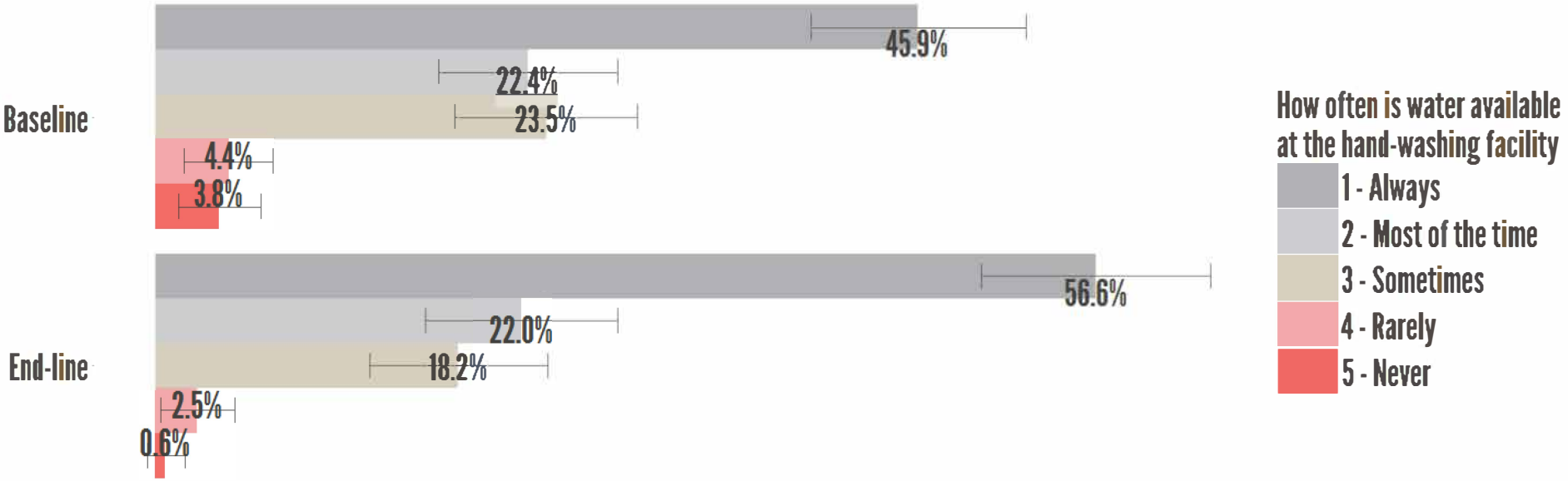


Valid n baseline: 159; valid n end-line: 76

- Main barrier for hand washing in schools was shortage of water.
- Decrease in the proportion of schools where lack of hand-washing facilities were reported.

Hand washing

Reported water availability at the hand-washing facility by data collection round

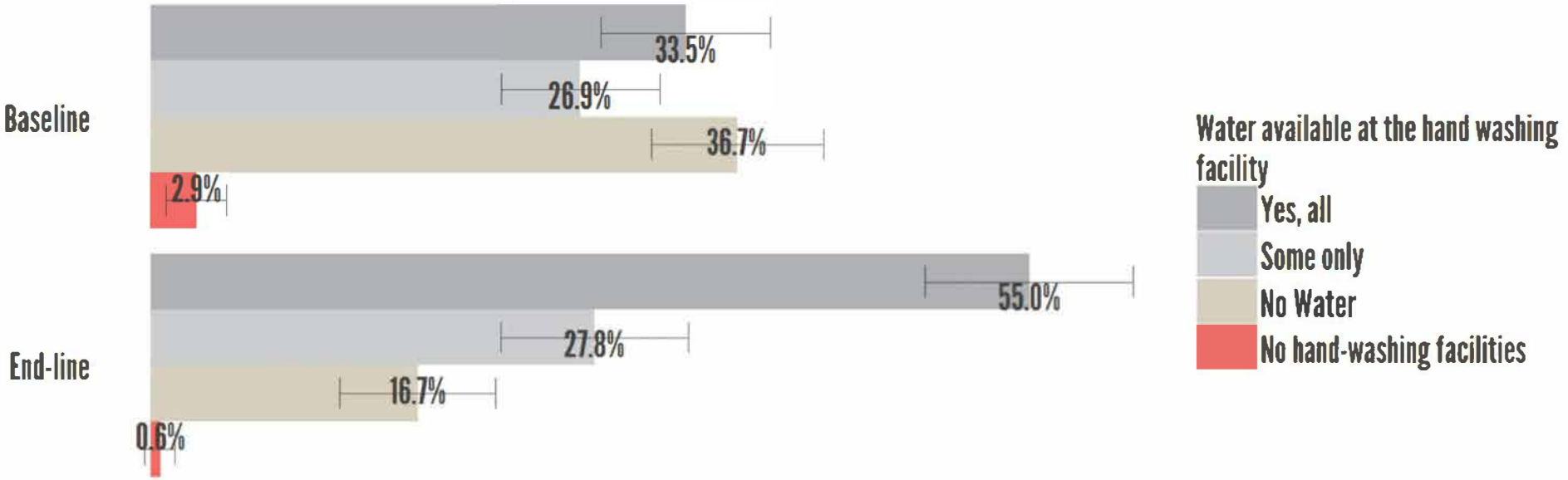


Pearson's X^2: Rao & Scott adjustment, p-value=0.109; Valid n baseline: 183; valid n end-line: 159

- Only 56.6% of the schools have constant access to water

Hand washing

Observed water availability at the hand washing facility by data collection round

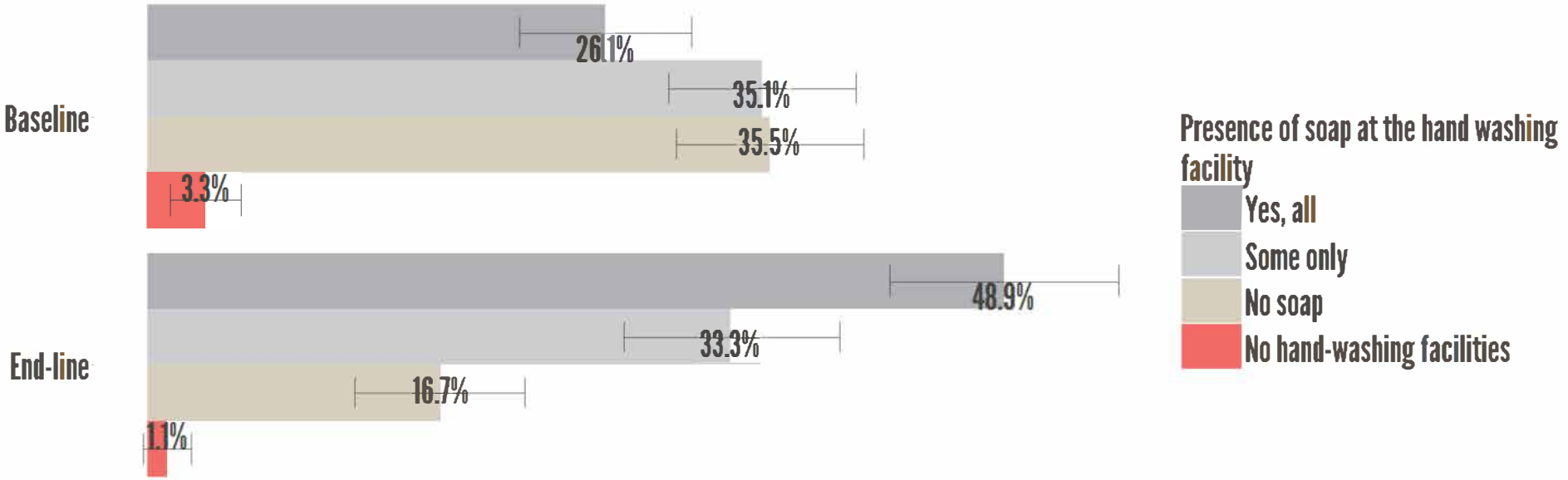


Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools where water were available at the hand-washing facilities during the time of the assessment

Hand washing

Observed presence of soap at the hand washing facility by data collection round



Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools where soap was observed at the hand-washing facilities

Hand washing

Reported coping strategy used by children when hand washing facility is not working by data collection round

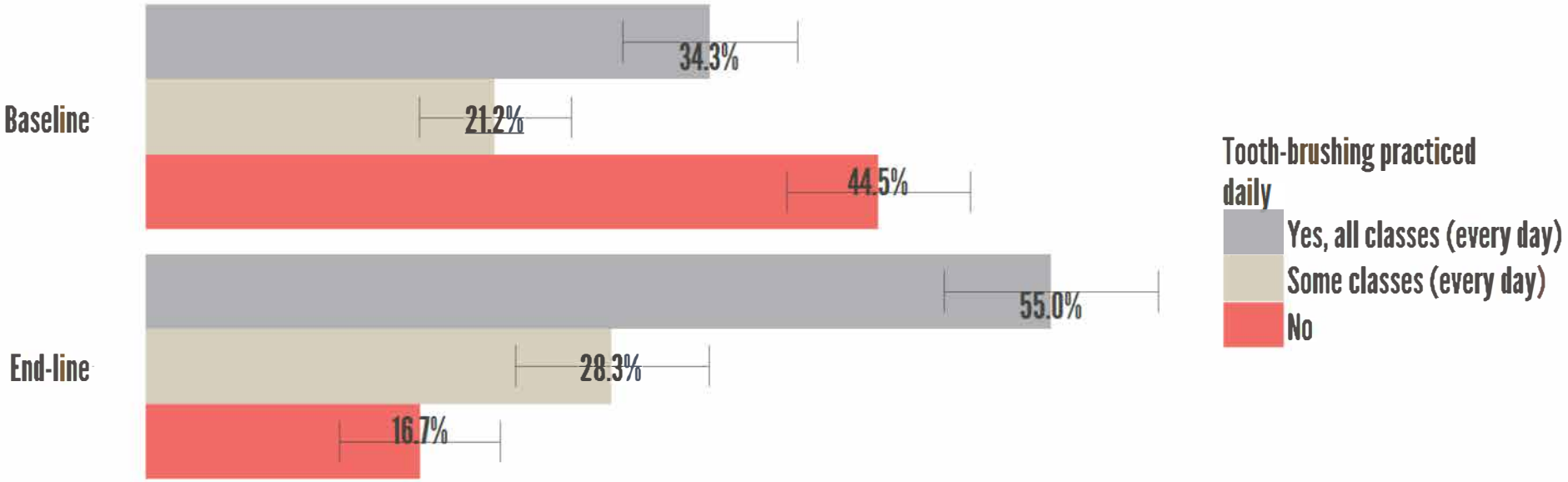
	Baseline	End-line
Don't clean hands	52.7% (47.1, 58.2)	25.3% (19.6, 31)
Bring water from home	14.3% (10.4, 18.2)	29.2% (23.2, 35.2)
Community provides water for whole school	5.3% (2.8, 7.8)	20.2% (14.9, 25.5)
Use other water source	16.7% (12.6, 20.9)	5.6% (2.6, 8.6)
Hand sanitizer or alcohol provided by students	0.8% (-0.2, 1.8)	10.1% (6.1, 14.1)
Buy bottled water or iced water to wash hands with	3.3% (1.3, 5.3)	2.8% (0.6, 5)
No problem	1.6% (0.2, 3.1)	3.9% (1.4, 6.5)
Hand sanitizer or alcohol provided by school or teacher	1.6% (0.2, 3.1)	2.8% (0.6, 5)
Other	2% (0.5, 3.6)	0% (0, 0)
Don't know	1.6% (0.2, 3.1)	0% (0, 0)

Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 178

- Decrease in schools where children are reported not to wash their hands when the hand washing facility is not available.
- Increase in the proportion of schools where community provide water when hand-washing facility is not available

Tooth brushing

Reported frequency of tooth-brushing daily practice by data collection round



Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools where tooth brushing practice were reported to be practice daily

Sanitation

Sanitation

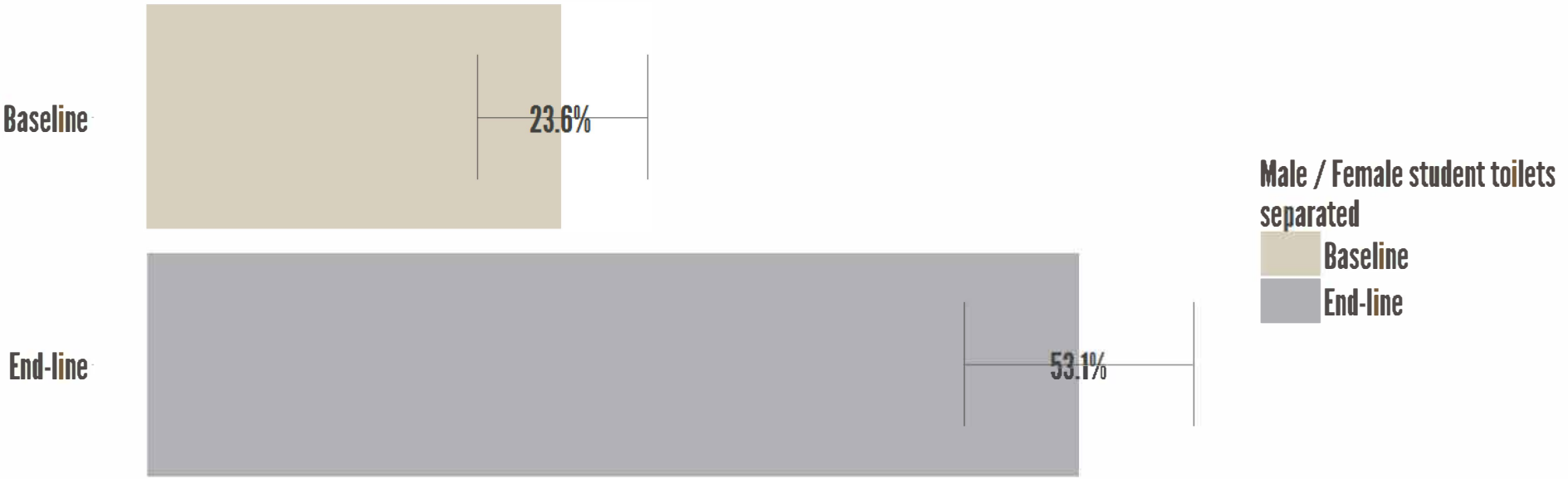
Disposal of garbages by data collection round

	Baseline	End-line
Thrown or Piled inside school premises	29.4% (24.3 , 34.5)	34.4% (28.2 , 40.7)
Incinerate	32.2% (27 , 37.5)	16.7% (11.8 , 21.5)
Buried	22.4% (17.8 , 27.1)	20.6% (15.3 , 25.8)
Thrown or Piled outside of school premises	6.9% (4.1 , 9.8)	13.3% (8.9 , 17.8)
Collection Service	7.3% (4.4 , 10.3)	12.2% (7.9 , 16.5)
Other	1.6% (0.2 , 3.1)	2.2% (0.3 , 4.2)
No disposal	0% (0 , 0)	0.6% (-0.4 , 1.5)

Pearson's X^2: Rao & Scott adjustment, p-value=0.004; Valid n baseline: 245; valid n end-line: 180

Sanitation

Male / Female student toilets separated by data collection round



Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 237; valid n end-line: 179

- Increase in proportion of the schools where toilets were separated by sex

Sanitation

Number of students per functioning toilet by data collection round

Design-based t-test p-value=0; Valid n baseline: 237 ; valid n end-line: 178

- Improvement in the ratio of students by functioning toilet facility.

Sanitation

Main toilet facility type by data collection round

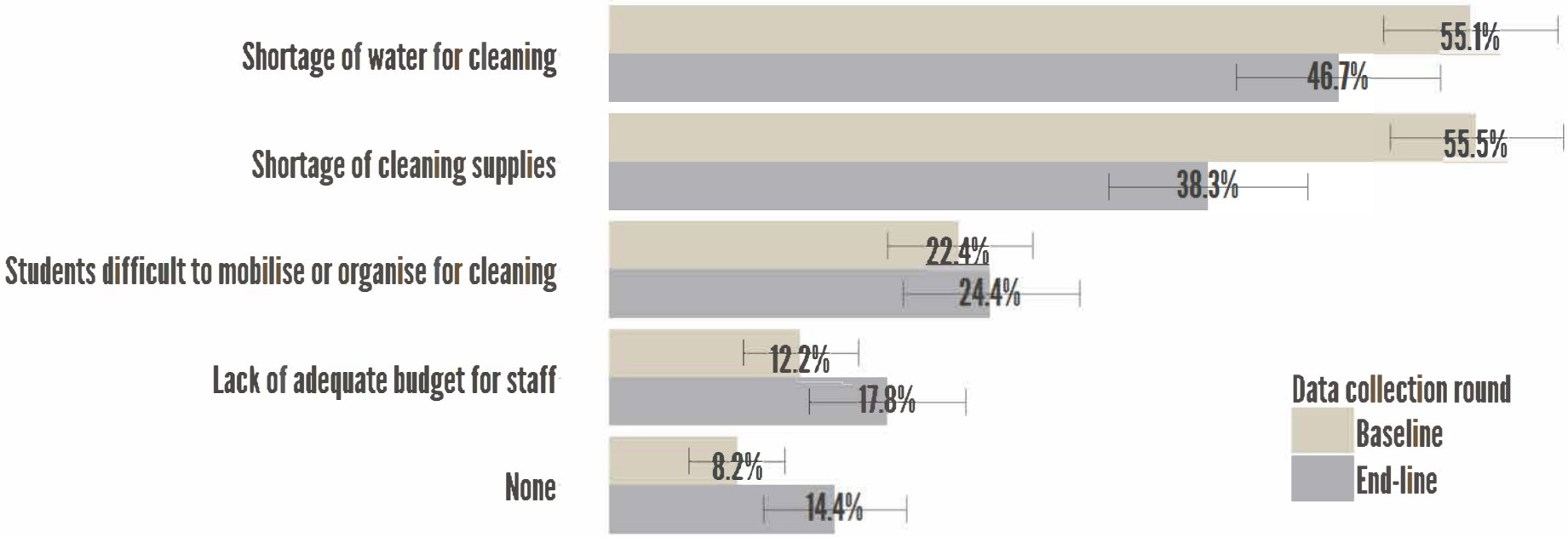
		Baseline	End-line
Improved toilet facility	Flush or pour flush to piped sewer system	0% (0 , 0)	8.9% (5.2 , 12.6)
	Flush or pour flush to septic tank	91.4% (88.3 , 94.6)	86.1% (81.6 , 90.6)
	Flush or pour flush to pit latrine	3.3% (1.3 , 5.3)	3.9% (1.4 , 6.4)
	Ventilated Improved Pit (VIP) Latrine	1.6% (0.2 , 3.1)	0.6% (-0.4 , 1.5)
	Pit Latrine With Slab	0.8% (-0.2 , 1.8)	0% (0 , 0)
	No facilities	2.9% (1 , 4.7)	0.6% (-0.4 , 1.5)

Pearson's X^2: Rao & Scott adjustment, p-value=0; Valid n baseline: 245; valid n end-line: 180

- Increase in the proportion of schools where the main toilet facilities where flush to piped sewer system

Sanitation

Main challenges reported to keep toilets clean by data collection round

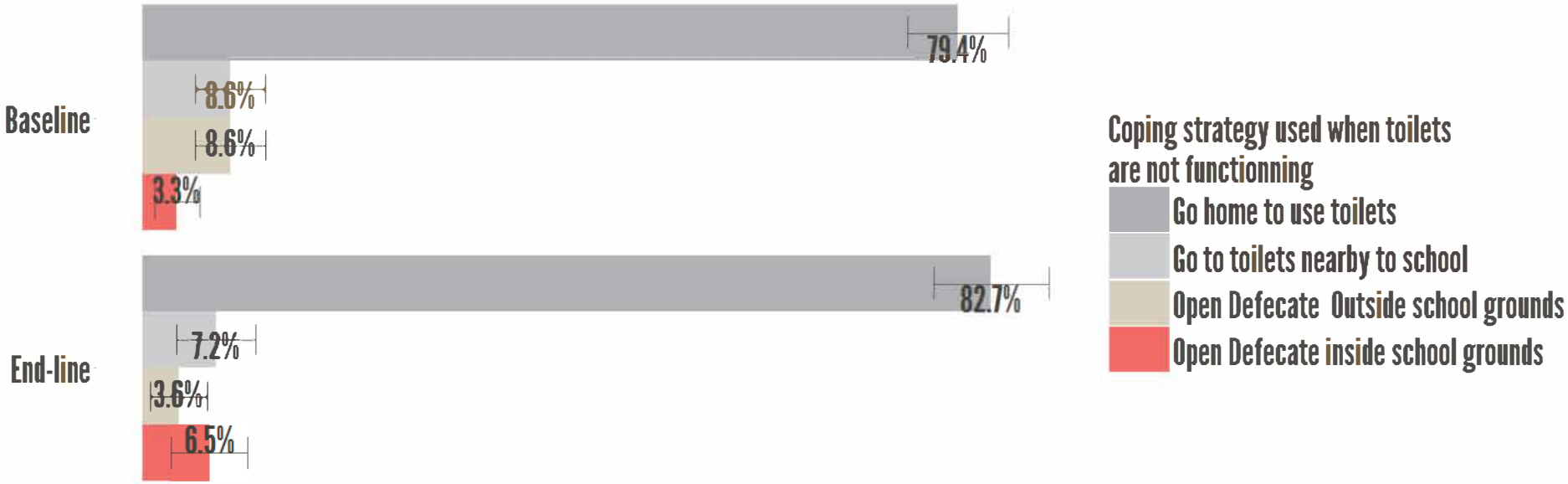


Valid n baseline: 245 ; valid n end-line: 180

- Main challenges for toilet cleanningless are shortage of water and cleaning products.
- Decrease in proportion of schools reporting lack of cleaning supplies as main challenge to keep the toilets clean.

Sanitation

Reported coping strategy used by children when toilet broken by data collection round



Pearson's X^2: Rao & Scott adjustment, p-value=0.155; Valid n baseline: 209; valid n end-line: 139

Sanitation

Key informant reporting children defecating in the open by data collection round

Pearson's X^2: Rao & Scott adjustment, p-value=0.571; Valid n baseline: 245; valid n end-line: 179

- No difference in open defecation reported by the key informant between end-line and baseline.

Thank you