Agenda

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Income poverty measurement: due to social distancing measurements implemented in Colombia during 2020, it was necessary to adapt the main face-to-face household survey to a phone survey between March and July, in which the questionnaire was reduced. For this reason, a complementary phone survey was applied in November and December to recover income data for the period March-July, 2020.
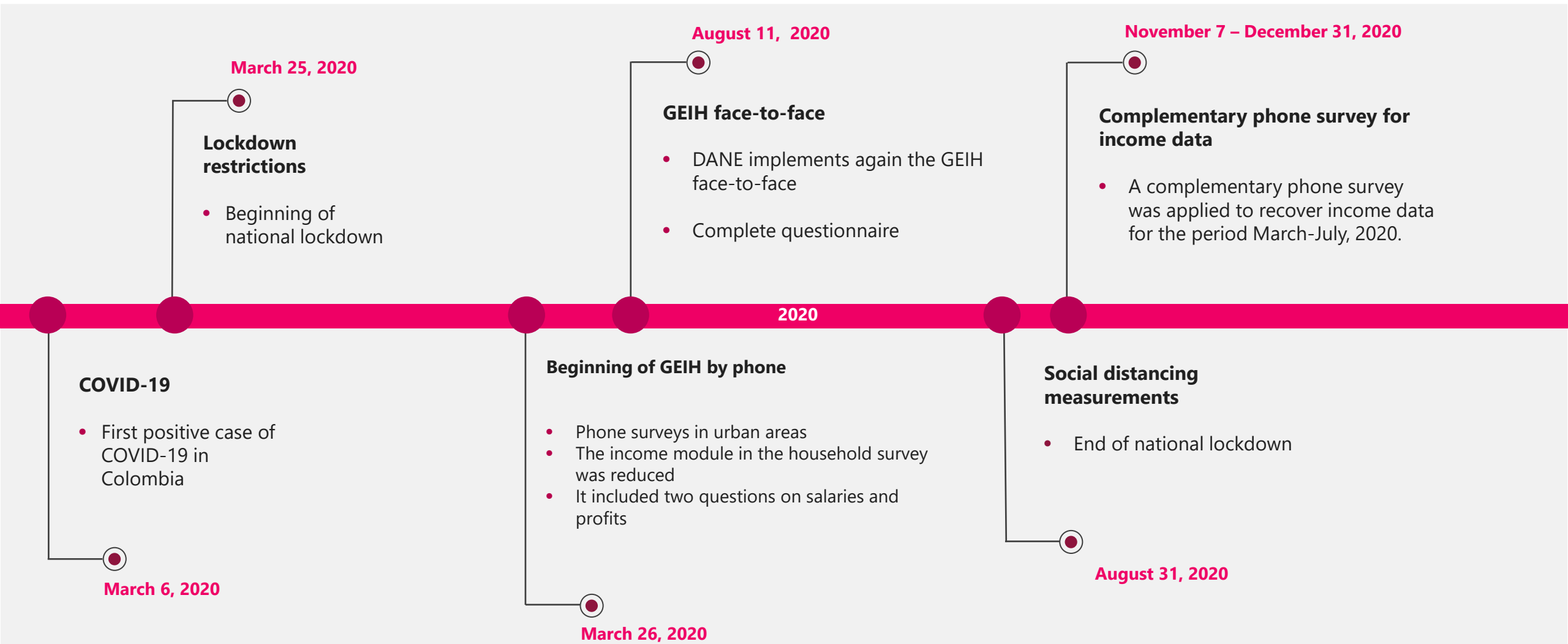
2

Consistency checks of income data to measure poverty in 2020: integrating the Household Survey (GEIH) with Administrative Records, in order to validate consistency of the data collected in November and December.

Timeline
Great Integrated Household Survey (GEIH) 2020

August 11, 2020

November 7 – December 31, 2020

March 25, 2020

GEIH face-to-face

- DANE implements again the GEIH face-to-face

- Complete questionnaire

Complementary phone survey for income data

- A complementary phone survey was applied to recover income data for the period March-July, 2020.

Lockdown restrictions

- Beginning of national lockdown

2020

COVID-19

- First positive case of COVID-19 in Colombia

Beginning of GEIH by phone

- Phone surveys in urban areas
- The income module in the household survey was reduced
- It included two questions on salaries and profits

Social distancing measurements

- End of national lockdown

March 6, 2020

August 31, 2020

March 26, 2020

Income data for poverty measurement

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Context:

Due to the social distancing measurements implemented associated with the pandemic, it was necessary to adapt the main face-to-face household survey (GEIH) to a phone survey between March and July. While the original questionnaire had to be reduced, we included questions on salaries and profits of self-employees, but information on other income sources were not collected during the period mentioned above.

For this reason, in November and December, DANE implemented a complementary phone survey to collect the household income data that was not previously collected between March and July. This data may have a report bias since the information was collected 5 months later. In order to address this, we intend to use Administrative Records such as the government allowances (public transfer programs) and social security register (PILA).
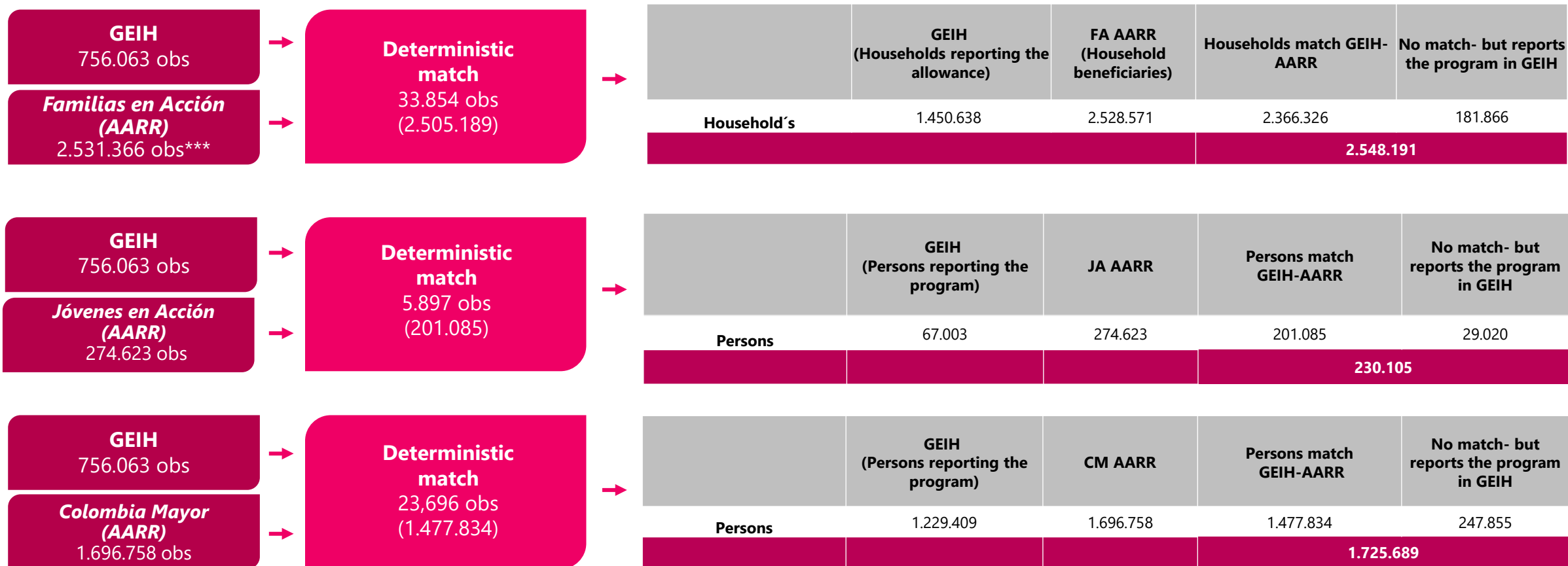
Income data for poverty measurement

Challenges:

- **Integrability – unique keys:** The personal identification number (cédula) is not a mandatory question for respondents in the GEIH.   Thus, it is troublesome to match the GEIH with Admin Records. In addition, statistical operations and administrative records do not have unique identifiers. For example, in Colombia the identification number changes as the person reaches the legal age. To increase the matching rate GEIH-AARR we use record linkage methods, using variables such as names, surnames and birth dates

- **Validity quality output**

  - **Accuracy: :** It is necessary to <u>harmonize the information</u> since the administrative records do not have statistical purposes, i.e standardizing the data sets and including the statistical unit

  - **Differences in the reference period:** The GEIH is a monthly operation while the Admin Records (i.e., government allowances) have a quarterly or annual reference period.

  - **Completeness:** In the GEIH we have a non-response issue. For instance, in the government allowances we need to carry out coverage assessments to define a correct imputation method.

Preliminary accuracy assessment - Government Allowances (Administrative Records-GEIH)
Determinsitic match* (2019)

GEIH
756.063 obs

Familias en Acción (AARR)
2.531.366 obs***

Deterministic match
33.854 obs
(2.505.189)

	GEIH (Households reporting the allowance)	FA AARR (Household beneficiaries)	Households match GEIH-AARR	No match- but reports the program in GEIH
Household´s	1.450.638	2.528.571	2.366.326	181.866
				2.548.191

GEIH
756.063 obs

Jóvenes en Acción (AARR)
274.623 obs

Deterministic match
5.897 obs
(201.085)

	GEIH (Persons reporting the program)	JA AARR	Persons match GEIH-AARR	No match- but reports the program in GEIH
Persons	67.003	274.623	201.085	29.020
				230.105

GEIH
756.063 obs

Colombia Mayor (AARR)
1.696.758 obs

Deterministic match
23,696 obs
(1.477.834)

	GEIH (Persons reporting the program)	CM AARR	Persons match GEIH-AARR	No match- but reports the program in GEIH
Persons	1.229.409	1.696.758	1.477.834	247.855
				1.725.689

Source: DANE. GEIH 2019. - DPS. RRAA FA CM JA 2019.
Deterministic match

Government Allowances and Social Security Register (Administrative Records-GEIH)

Next steps:

- **Quality framework for administrative records:** DANE is designing a quality framework for administrative records to measure indicators such as coverage and integrability

- **Integrating administrative records of 2020 with the GEIH** by combining government allowances records and the social security register with the GEIH.

- **Imputation method:** checking the consistency of the information, the imputation method and the validity of outputs.