

Supplemental file 1

Mortality:

Mortality information was collected using a pre-defined process, including the examination of death certificates when available, and the completion of a data collection form. Information collected included:

- Personal information to corroborate data was from the participant who died during follow-up;
- Usual place of residence;
- Place, date and hour of death;
- Causes of death: up to four causes and two underlying causes.

Trained nurses and health technicians were in charge of collecting and copying information from the death certificate onto the data collection form.

Mortality data collection in urban areas

In Lima, which included urban and rural-to-urban migrant groups, we obtained mortality data primarily from death certificates as described above.

Mortality data collection in rural areas

In rural Ayacucho it was not always possible to obtain a death certificate. In the case of many rural participants, mortality data were obtained through interviews with relatives or people close to the participant (e.g. long-time neighbors). We asked the interviewees to answer the questions present on the death certificate. Many of these interviews were performed in Quechua, one of the indigenous languages spoken in the Peruvian Andes. Trained nurses with Quechua speaking skills conducted these interviews. In addition, a physician participated in the interview to increase understanding of the medical terms that are used to explain the causes of death.

Ascertainment of deaths

After data collection the deaths were adjudicated independently by two physicians. If there was disagreement between the two physicians, a third physician decided the cause of death for a given participant.

The ascertainment of cause of death was performed into five pre-defined groups: i) cardiovascular, including myocardial infarction, stroke or heart failure; ii) cancer (malignancy), any type; iii) injury, including any trauma or accident; iv) infection, including pneumonia and sepsis; and v) other causes not included in the aforementioned categories.

Verbal autopsy was not performed because there were no Quechua-speaking trained professionals skilled at this technique.