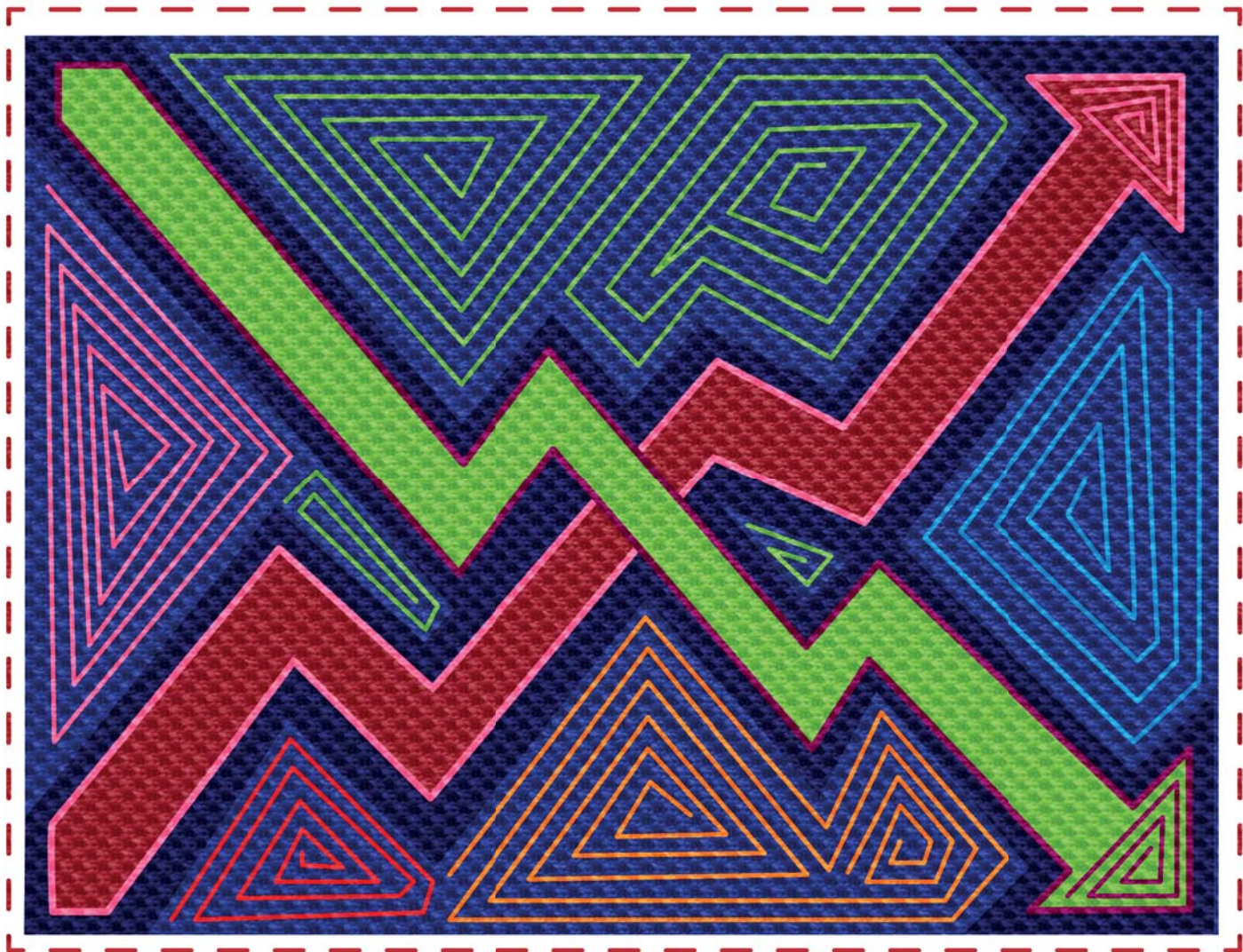




PERÚ

Ministerio de Salud

# ANALYSIS OF THE CAUSES OF MORTALITY IN PERU, 1986-2015



EL PERÚ PRIMERO

# ANALYSIS OF THE CAUSES OF MORTALITY IN PERU, 1986-2015



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DATA FOR  
HEALTH INITIATIVE

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The report titled Analysis of the Causes of Mortality in Peru 1986-2015 contains information on the causes of death in the country, according to rural and urban area, geographic region, department of residence and condition of poverty, with a focus on identifying the leading inequalities<sup>1</sup>. Similarly, for the first time, analysis of a historical series of 30 years is presented, enabling a greater understanding of trends in the causes of death.

This document contains a brief summary of the full report. The overall mortality rate is described first, followed by the causes of death according to large groupings of causes. Subsequently, the specific causes of death are ranked at a national level as well as by sex and life stage.

Finally, the report describes mortality due to selected causes of national importance within the larger diagnostic groupings of: 1. Neoplasia (neoplasia of the stomach, cervix, and prostate); 2. Infectious disease (acute lower respiratory infection, tuberculosis, and HIV-AIDS); and 3. Chronic disease (cardiovascular diseases and diabetes); and 4. Injury and external causes (traffic injuries).

<sup>1</sup> Measures of inequality were calculated using rate ratios and rate differences.

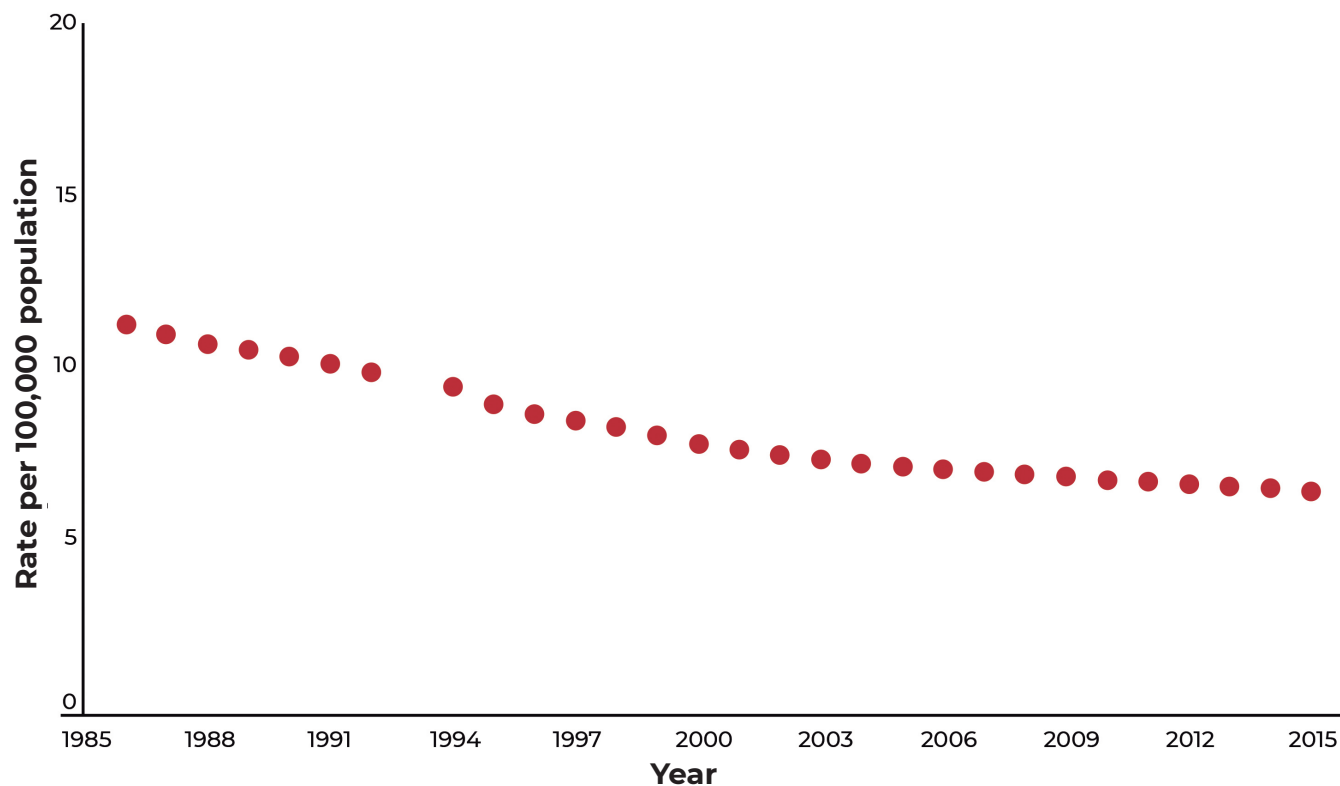


## The overall mortality rate in Peru has decreased in all demographic groups and geographic areas between 1986 and 2015

In 2015, the crude mortality rate in Peru was 5.6 deaths per thousand population. The rate decreased by 43% between 1986 and 2015. (see figure) The decrease occurred in both genders, in all age groups, in rural and

urban areas, and in the three natural geographic regions and departments. However, the decrease has been uneven; the decrease in mortality rate was lower in the rural population, in the Coast region, in older adults and in the non-poor population. Departments with the highest mortality rate in 2015 were: Huancavelica, Amazonas, Madre de Dios and Apurímac. Those with the lowest rates were: Lima (including Callao), Ica and Lambayeque.

### Age-standardized mortality rate. Peru: 1986-2015

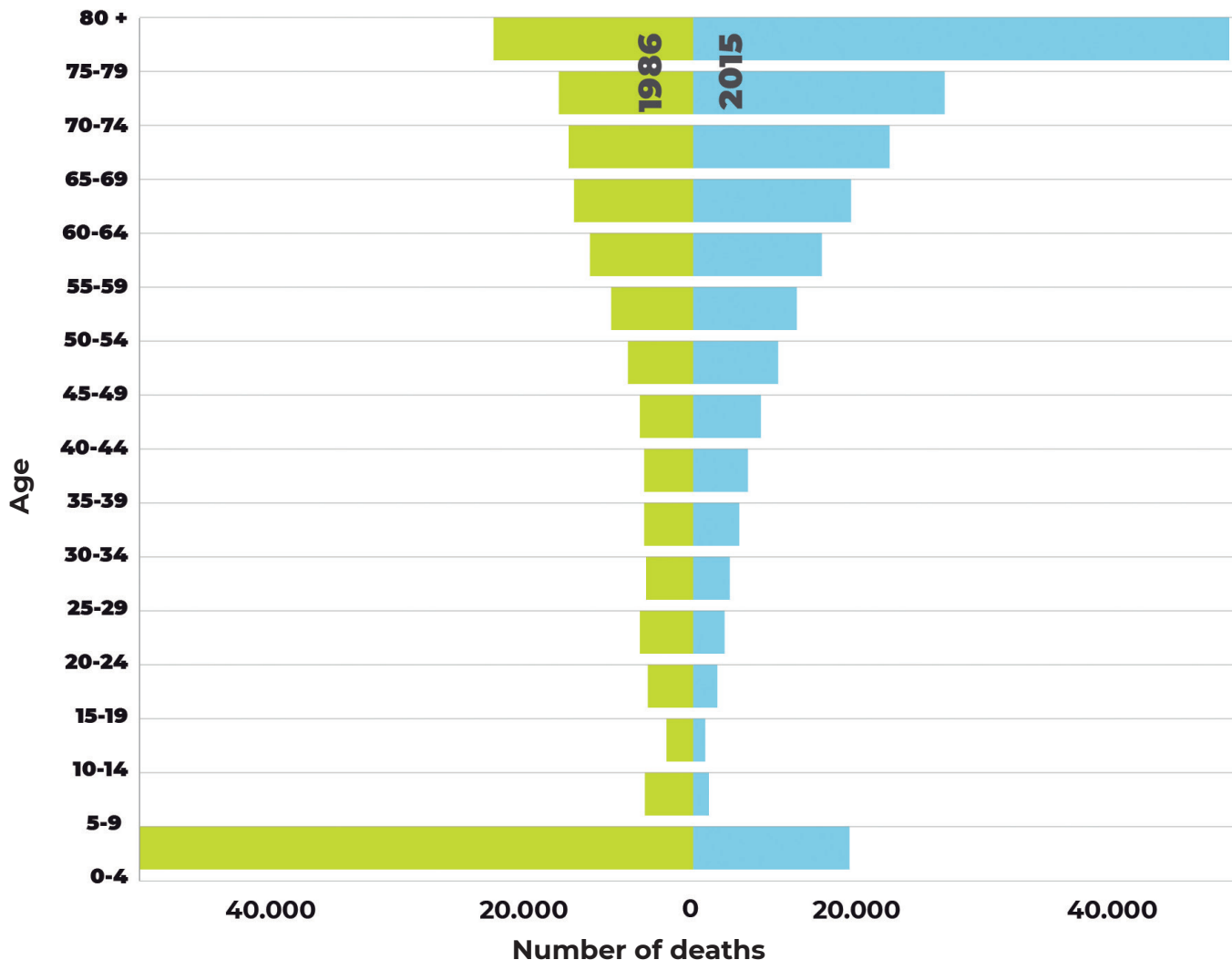


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

In 2015, persons over 80 years of age had the highest number of deaths, 27% of all deaths; whereas deaths among those under 5 years of age accounted for 8% of all deaths. In contrast, in 1986, deaths occurred mainly

in children under 5 years of age (31%) and only 11% in those over 80 years. (see figure)

Percent distribution of deaths by age group. Peru: 1986-2015



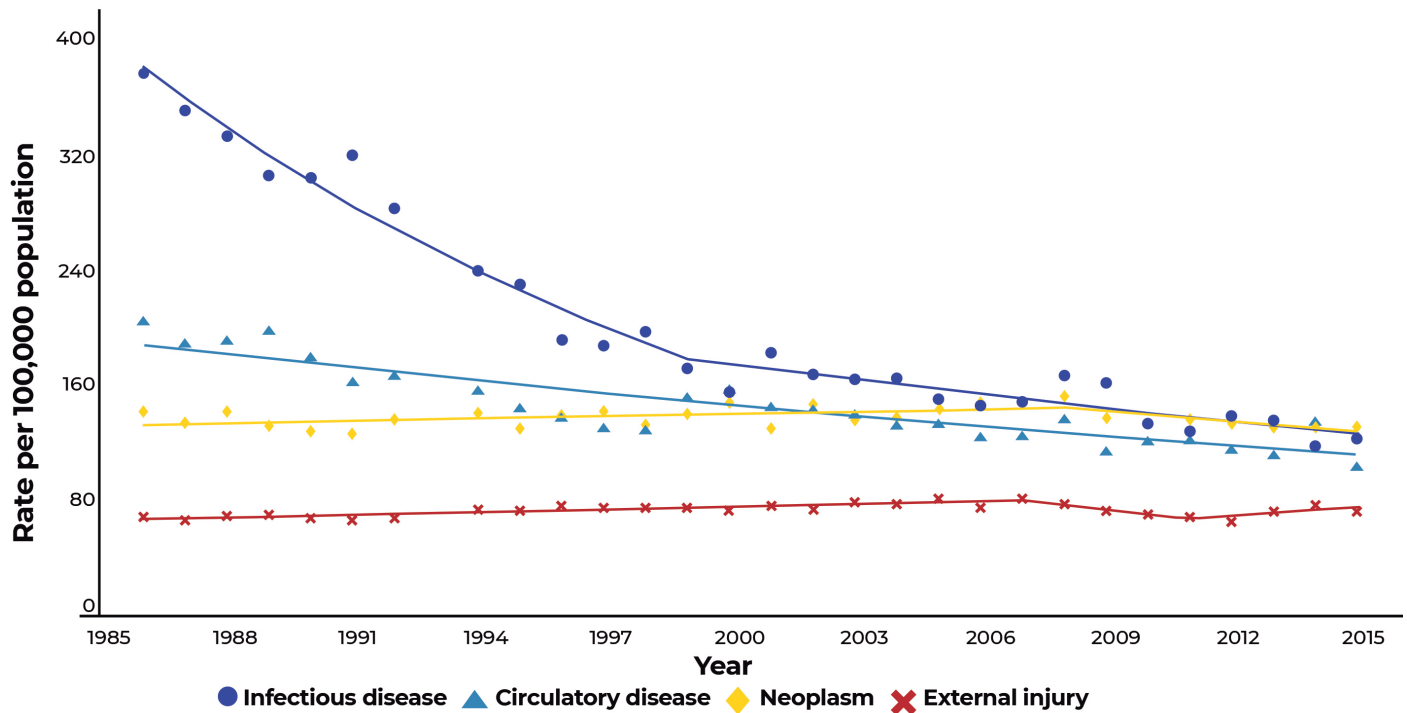
Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

## Mortality from infectious diseases and diseases of the circulatory system declined while deaths from neoplasms, injuries and external causes remain unchanged.

In the period 1986-2015, the mortality rate due to infectious and parasitic diseases decreased on average 4% per year. A similar pattern was seen in mortality from diseases of the circulatory system, which on average decreased by 2% per year. In this same period, mortality rates for neoplastic diseases, injuries and external causes remained unchanged. (see figure)

Deaths from neoplasms, infectious and parasitic diseases, diseases of the circulatory system and from injuries and external causes, represented two thirds (67%) of all deaths in 2015.

**Age standardized mortality rate according to disease group.  
Peru: 1986-2015**



Source: Death database 1986-2015. General Office of Information Technologies. MINSA

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## Leading specific causes of death in 2015

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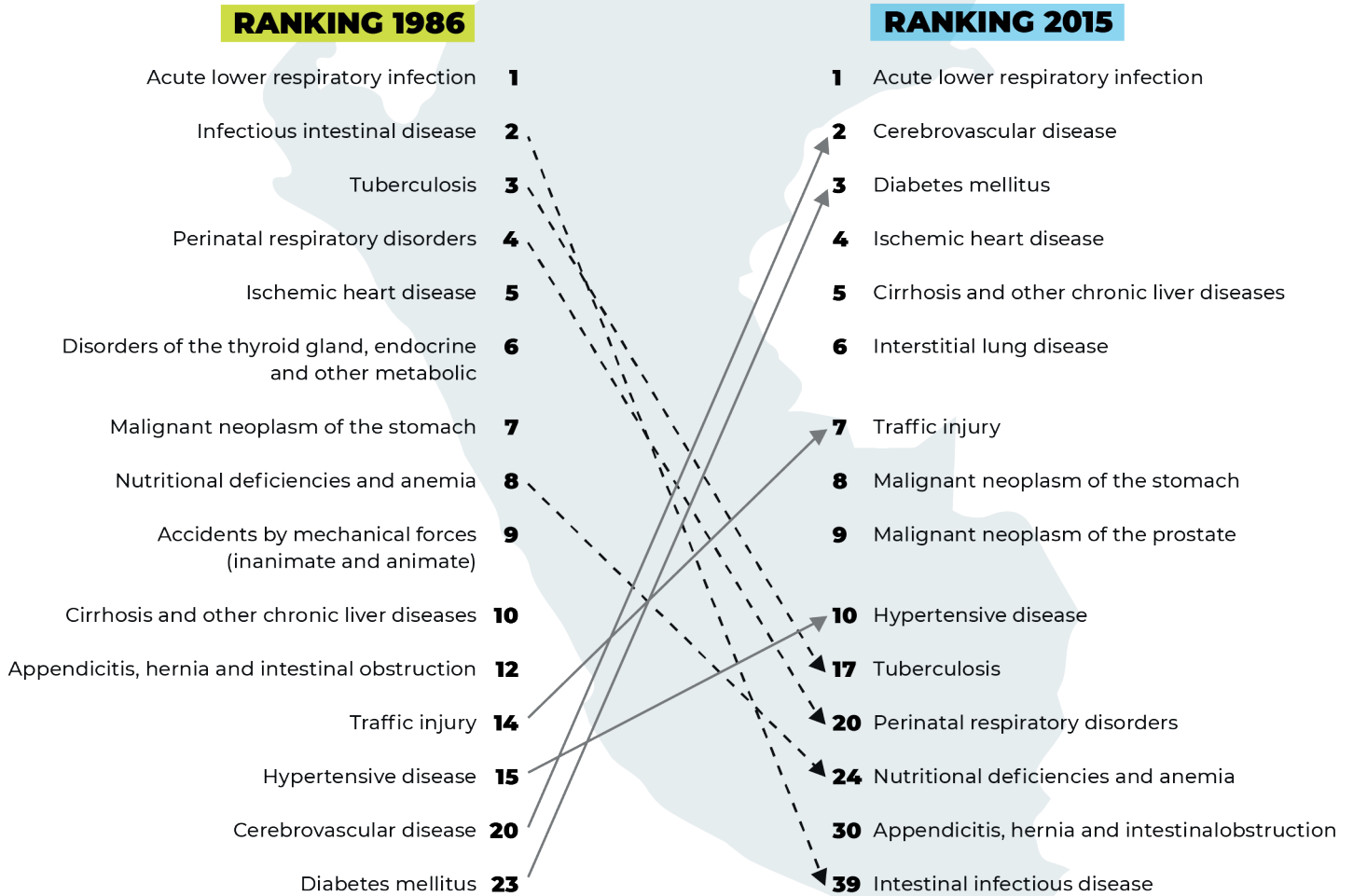
In Peru, the top five causes of death in 2015 were: acute lower respiratory infection, cerebrovascular disease, diabetes mellitus, ischemic heart disease and cirrhosis and other chronic diseases of the liver. (see figure) Within the malignant neoplasms, the first three causes were malignant neoplasm of the stomach (eighth leading cause in the national ranking), malignant prostate cancer (ninth) and malignant neoplasia of the cervix (eleventh).

According to gender, the leading causes of death in 2015 were:

- In men: acute lower respiratory infection, cerebrovascular disease, cirrhosis and other chronic liver diseases, traffic injuries and ischemic heart disease. Among deaths from malignant neoplasms, the leading specific causes were: stomach, prostate, liver and bile duct, trachea, bronchi and lung.
- In women: acute lower respiratory infection, cerebrovascular disease, diabetes mellitus, interstitial lung disease and ischemic heart disease. Within the malignant neoplasms the leading causes of death were stomach, liver and bile duct, cervical and breast.

# CAUSES OF DEATH IN PERU

## COMPARATIVE RANKING 1986 AND 2015







**OLDER ADULT**

- 1 Acute lower respiratory infection
- 2 Cerebrovascular disease
- 3 Interstitial lung disease
- 4 Ischemic heart disease
- 5 Diabetes melitus



**CHILD**

- 1 Congenital malformation, deformities and chromosomal anomalies
- 2 Specific respiratory disorder of the perinatal period
- 3 Acute lower respiratory infection
- 4 Accidents that obstruct breathing
- 5 Specific infections of the perinatal period



**ADULT**

- 1 Traffic injury
- 2 Cirrhosis and other chronic liver diseases
- 3 Malignant neoplasm of the uterine neck
- 4 Acute lower respiratory infection
- 5 Cerebrovascular disease



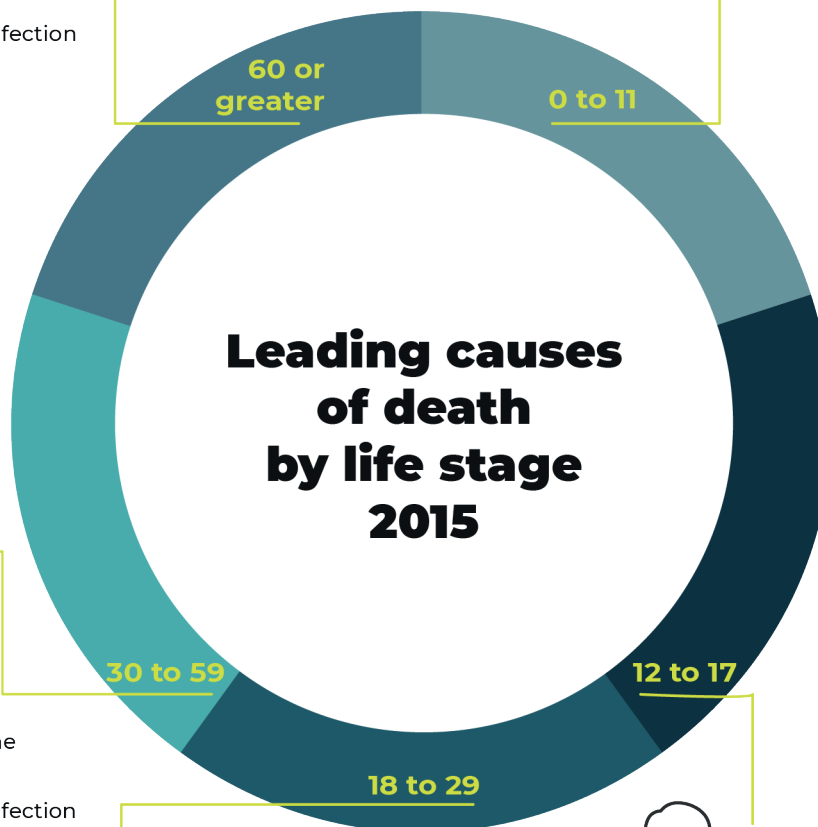
**YOUNG ADULT**

- 1 Traffic injury
- 2 Homicide
- 3 Acute lower respiratory infection
- 4 Tuberculosis
- 5 HIV diseases (AIDS)



**ADOLESCENT**

- 1 Traffic injury
- 2 Accidental threats to breathing
- 3 Leukemia
- 4 Acute lower respiratory infection
- 5 Drowning and submersion accidents



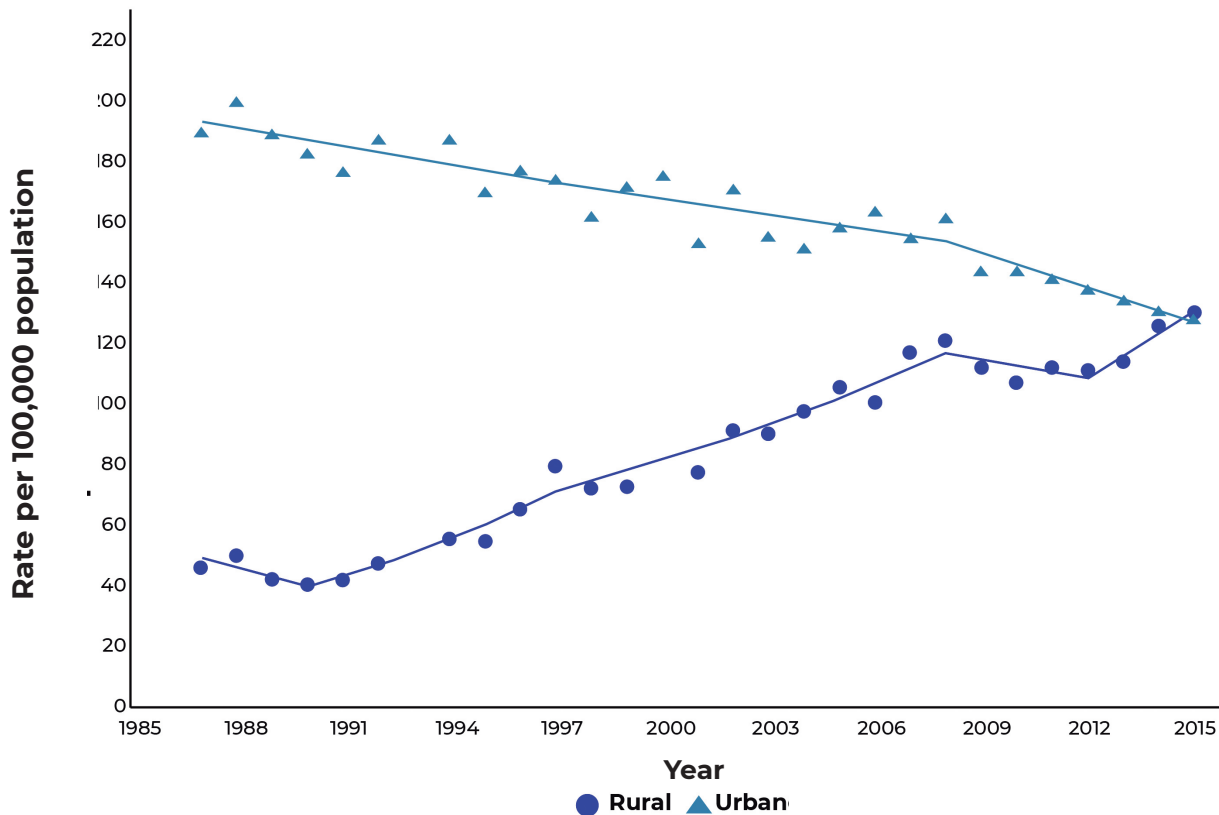
**Neoplasia mortality increased in rural areas and remained unchanged in the poor population. Overall, a decrease in neoplasia mortality was seen over the last seven years, after having increased between 1986 and 2007.**

While neoplasia mortality has been higher in urban areas, the rate declined in this group. In the rural area, however, there has been a sustained increase in the

rate. This change has resulted in a decrease in the inequality in the neoplasia mortality between urban and rural areas. (see figure) In addition, in the last 10 years neoplasia mortality in the poor population did not change, while among the non-poor, neoplasia mortality decreased; an increase in the inequality between these groups.

There is inequality in mortality due to neoplasia of stomach and cervix unfavorable to populations in rural areas and the poor.

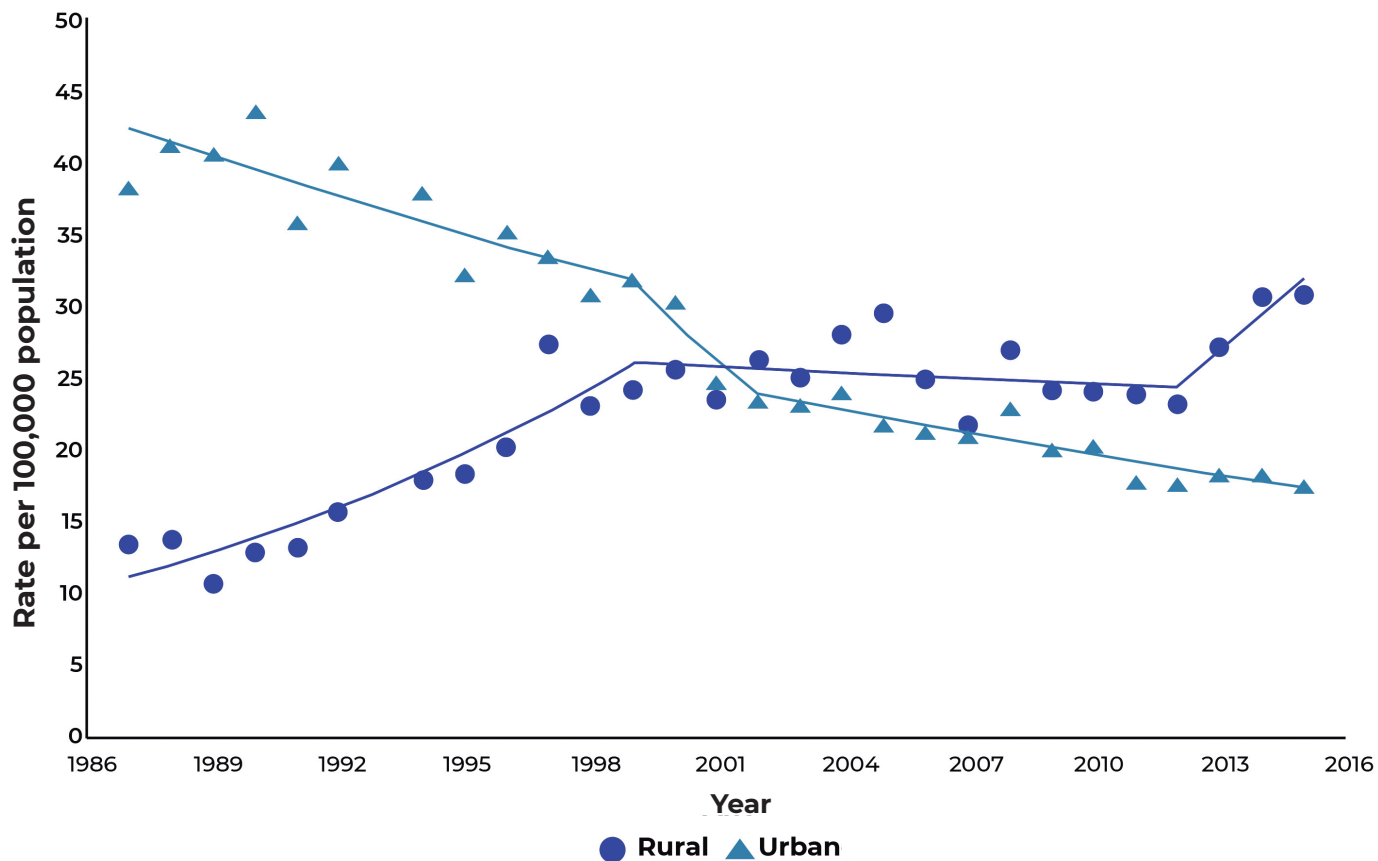
### Age-standardized mortality rate for neoplastic diseases by rural-urban area. Peru: 1987-2015



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

Specifically, by type of neoplasia, in 2015 mortality due to neoplasia of the stomach was more frequent in men, in rural areas (see figure), in the Mountain region and in the poor population.

### Age-standardized mortality rate from malignant neoplasm of the stomach by rural-urban area. Peru: 1987-2015



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

## Age-standardized mortality rate from malignant neoplasm of the stomach by department. Peru 2015

The departments with highest mortality rates in 2015 were Huancavelica, Huánuco, San Martín, Ayacucho and Apurímac. (see figure) This has resulted in unequal distribution in mortality from this neoplasia, unfavorable to rural and poor areas.

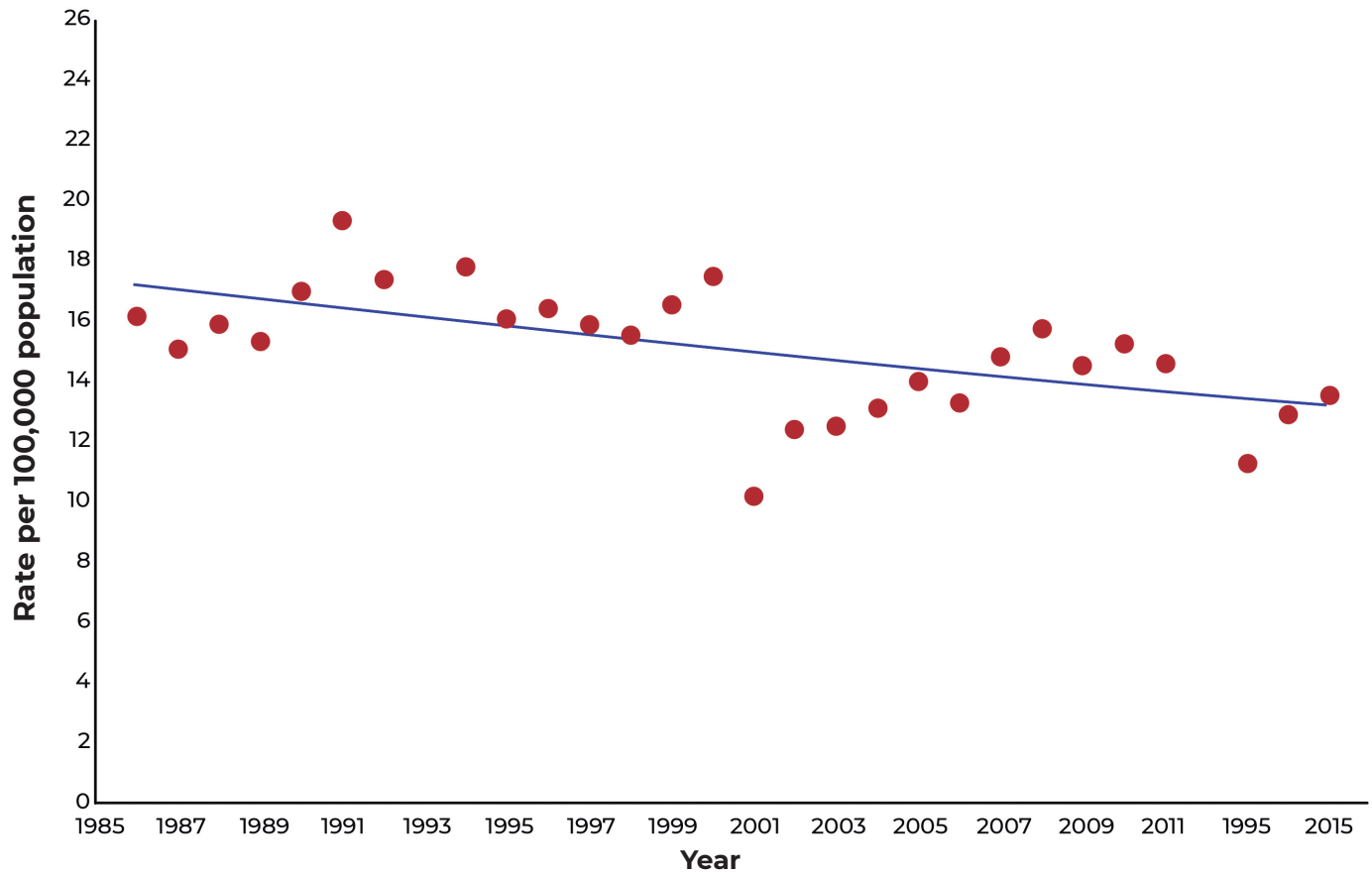


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

Mortality rates from cervical neoplasia, were highest in urban areas, in theJungle region, among the poor population and in the departments of Loreto, Madre de Dios, Huánuco and Ucayali. While the trend decreased on a national level (see figure), it did not

decrease in rural areas, in the Jungle region, nor in the poor population. (see figure on next page) Inequality in mortality from cervical neoplasia persists and increased in Peru, especially in poor areas and in the Jungle region.

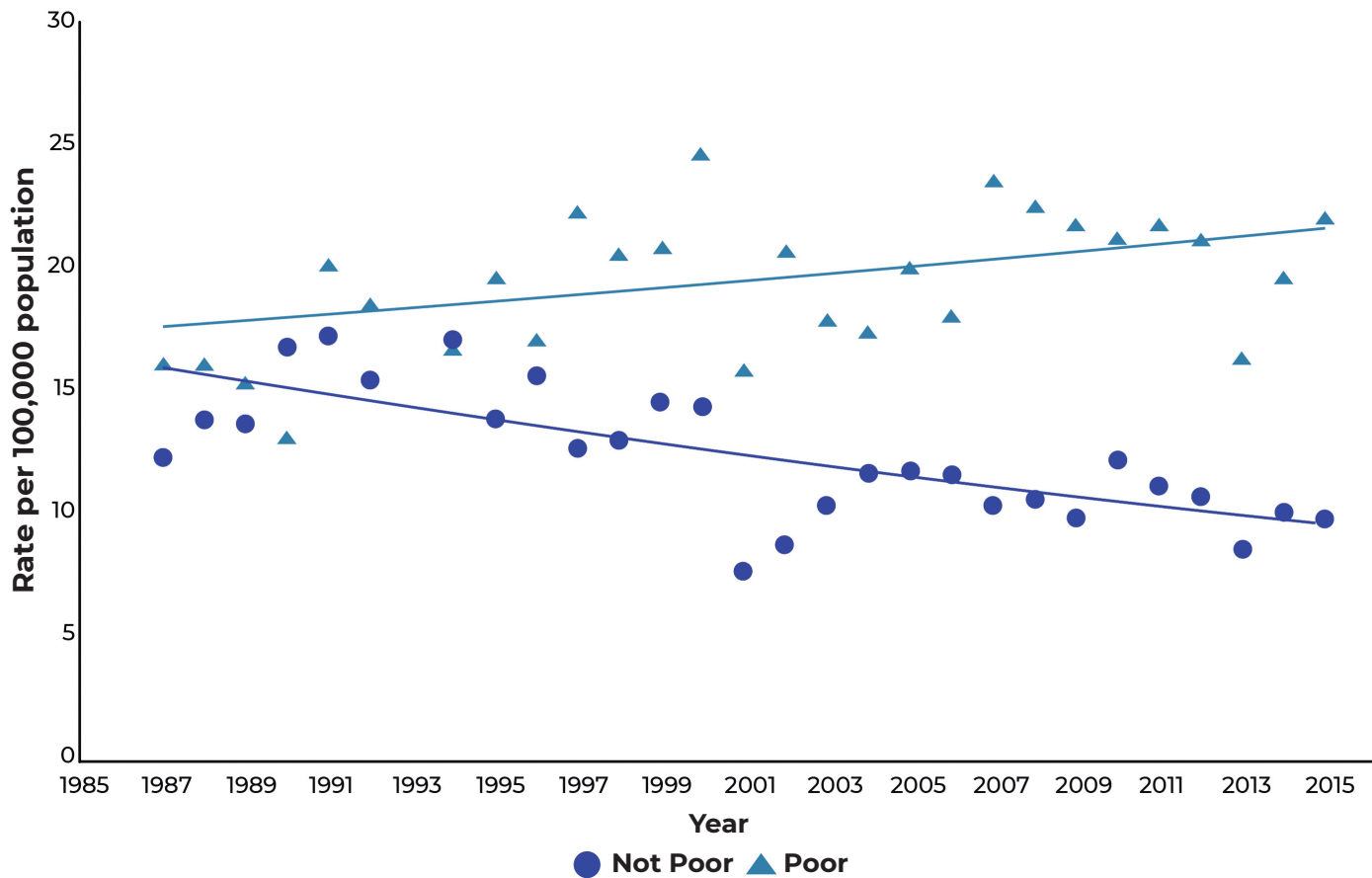
### Age-standardized mortality rate from cervical neoplasia. Peru: 1986-2015



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA



### Age-standardized mortality rate due to malignant cervical neoplasia by poverty condition. Peru: 1987-2015

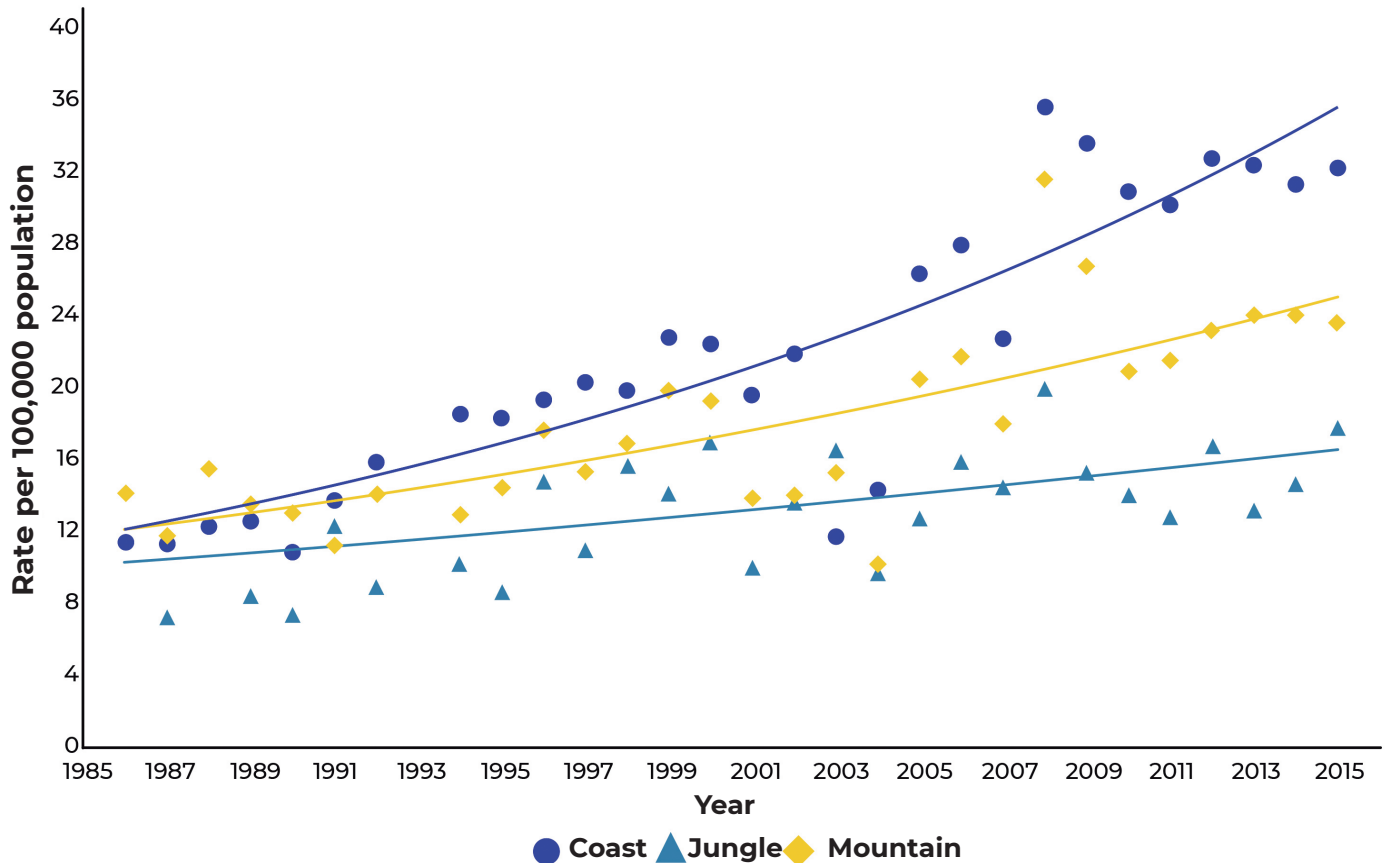


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

The mortality rate from prostate neoplasia increased until 2008 and subsequently remained stable. The rate is higher in urban areas, in the Coast region (see figure) and slightly higher in the not poor population. As a result, this increases the inequality affecting mainly those in urban areas and the coastal region.

The departments of Lambayeque, Huánuco, Ica and Lima (including Callao) had the highest rates in 2015. Inequality in prostate mortality increased, unfavorable to urban areas and the Coastal region. (see figure)

**Age-adjusted mortality rate for malignant prostate neoplasia by geographic region. Peru: 1987-2015**



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

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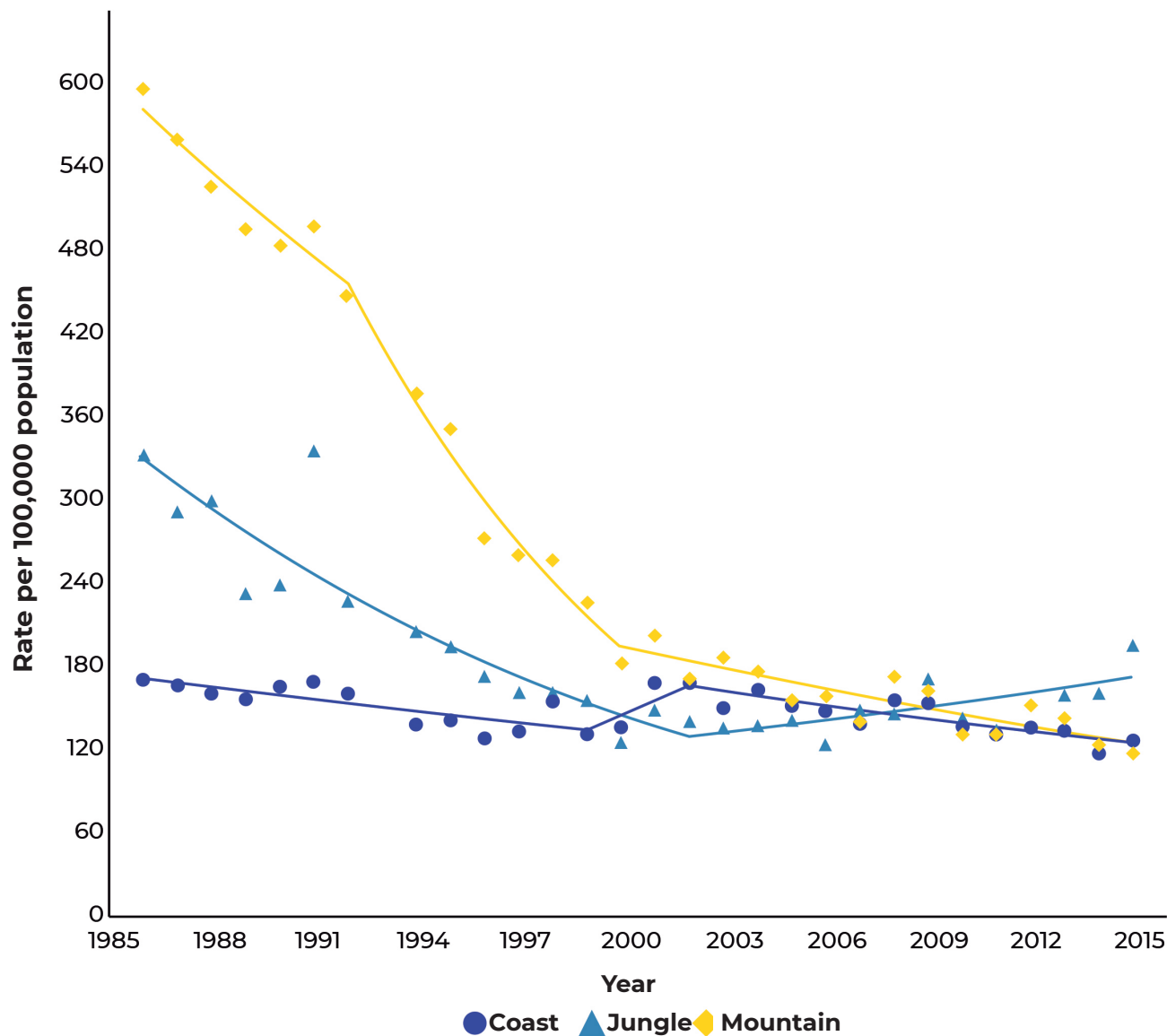
**Mortality from infectious and parasitic diseases declined steadily over the last 30 years, but the decrease has not been homogeneous throughout the country. Inequality decreased in deaths due to acute lower respiratory infection and due to tuberculosis, while inequality increased in mortality due to HIV / AIDS, primarily in rural areas and Jungle region.**

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Mortality from infectious and parasitic diseases has had a sustained decline over the last 30 years, but the decrease has slowed since 2005. Despite this, there are differences throughout the country; in the rural area there was no change in the trend, while in the Jungle, (see figure) the mortality rate due to infectious and parasitic diseases increased since 2002.

Mortality due to acute lower respiratory infection remains the leading cause of death nationally. However, there has been a marked decrease in mortality from this cause over time in all geographic areas except for the Jungle region, which increased over the last 15 years.

## Age-adjusted mortality rate for infectious and parasitic diseases by geographic region. Peru: 1986-2015

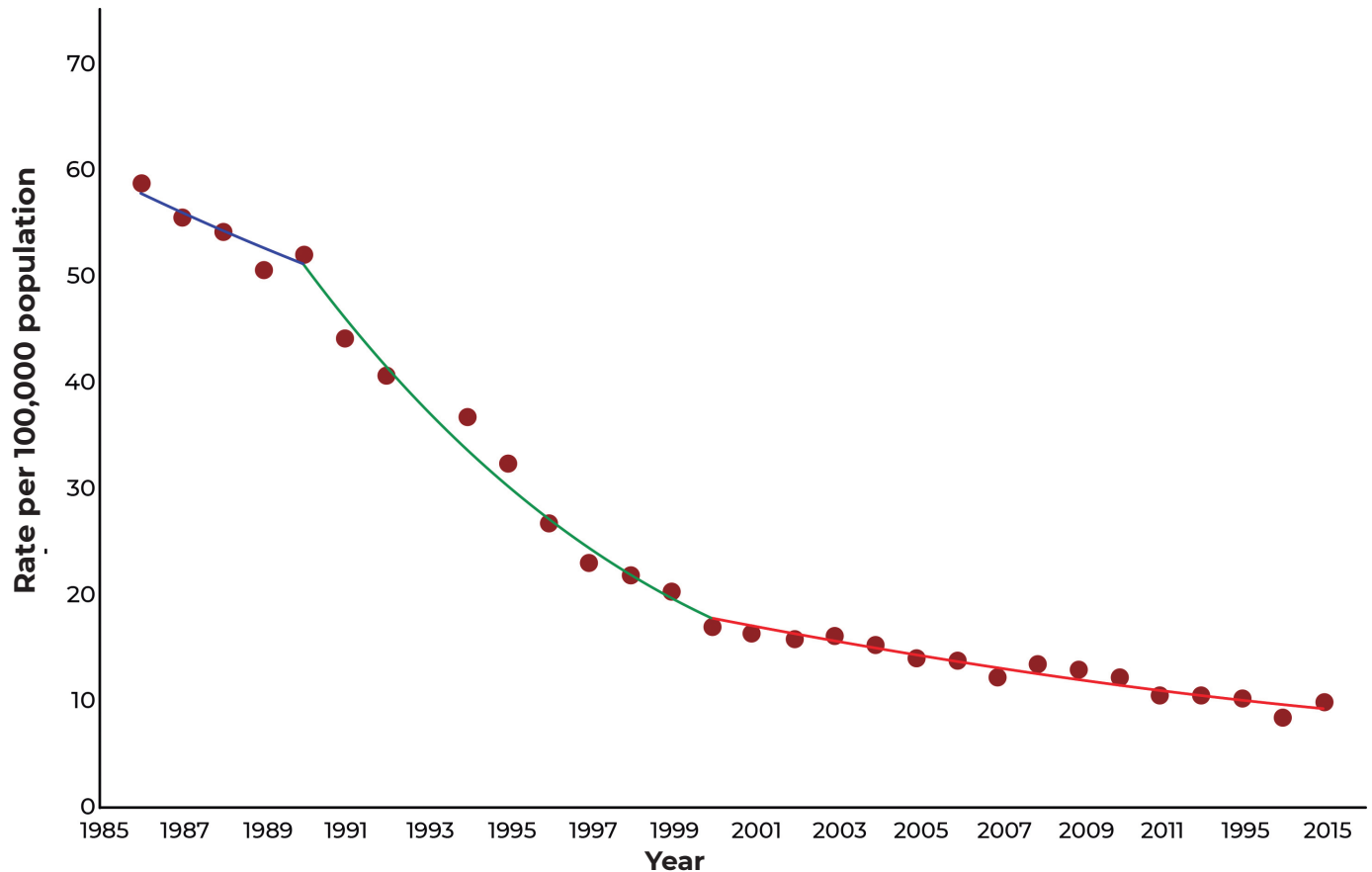


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

Tuberculosis mortality decreased; however, the decrease has slowed in the last 15 years. (see figure) This slowing of the decrease occurred both at the national level, as well as in geographic areas.

In 2015, mortality from tuberculosis was higher in men, in urban areas, in the Jungle region and among the poor population. The departments of Tacna, Madre de Dios, San Martin and Ucayali had the highest tuberculosis mortality rates. (see maps)

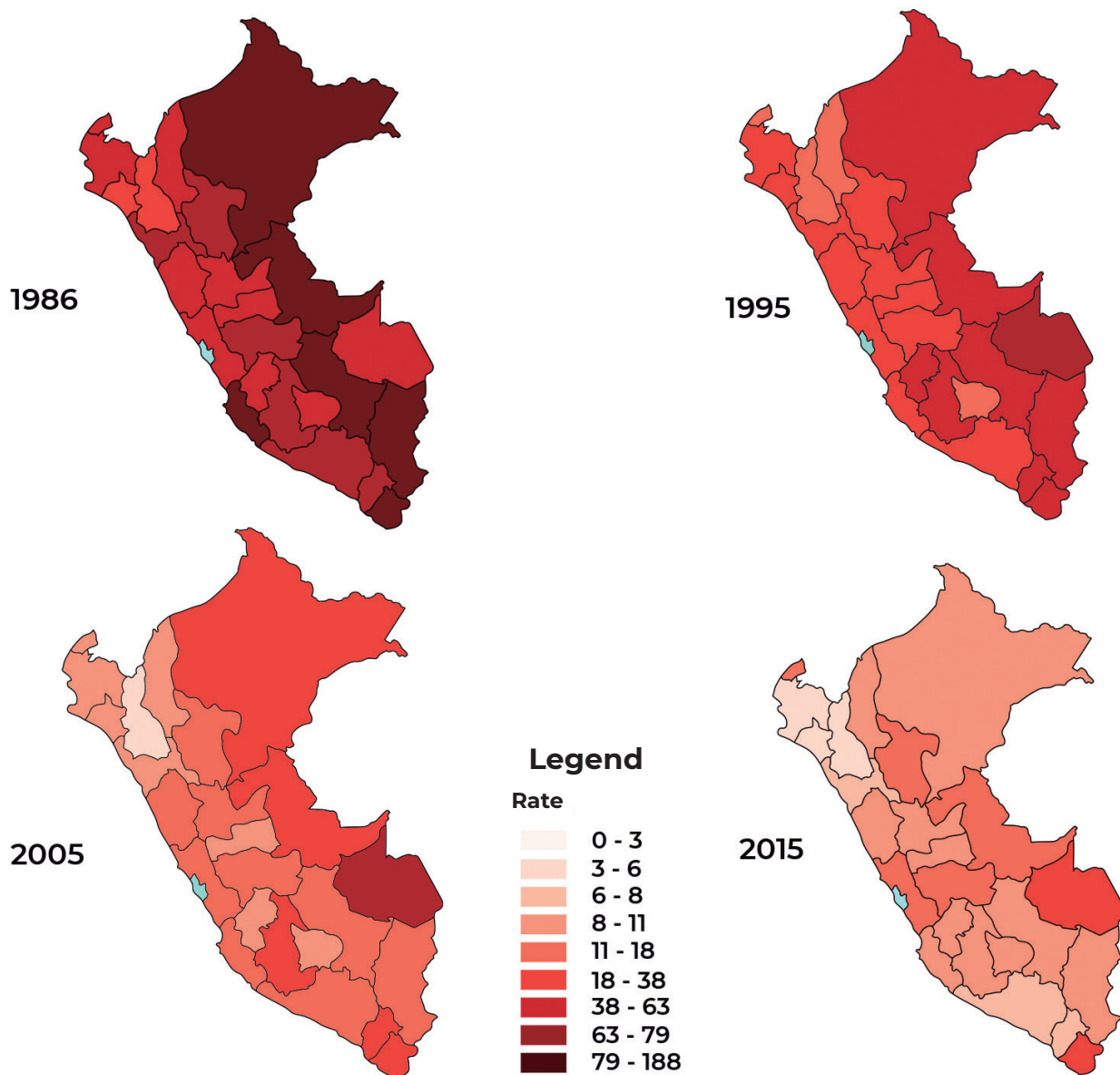
### Age-standardized tuberculosis mortality rate. Peru: 1986-2015



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA



### Age-standardized tuberculosis mortality rate. Peru: 1986, 1995, 2005 and 2015

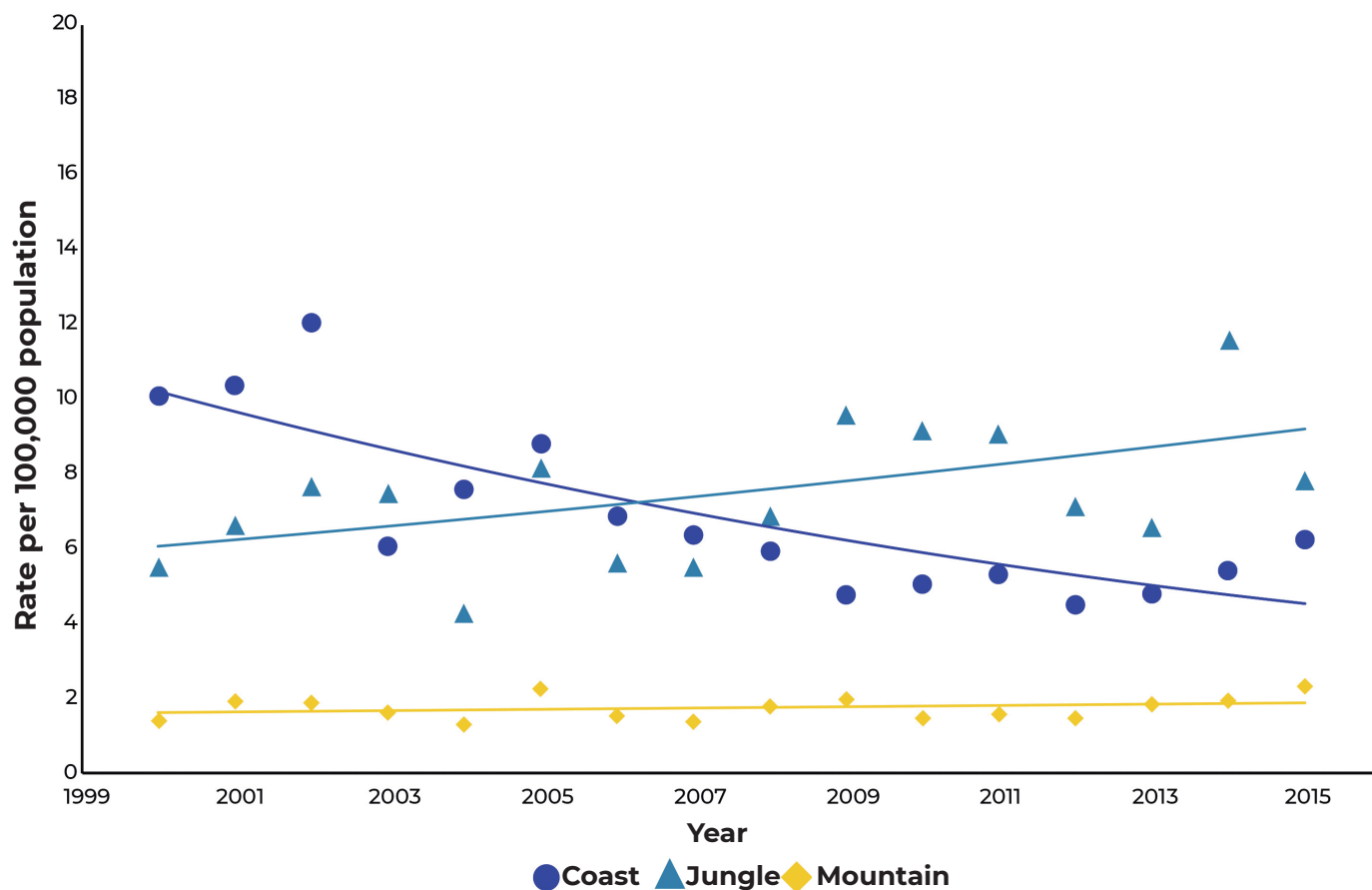


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

At the national level, mortality from HIV / AIDS decreased during the period 2000 to 2015. However, in rural areas and in the Jungle region (see figure) the rate increased, causing greater inequality between regions. In men, mortality rates from HIV / AIDS have also decreased, but as of 2012 there was a small, though

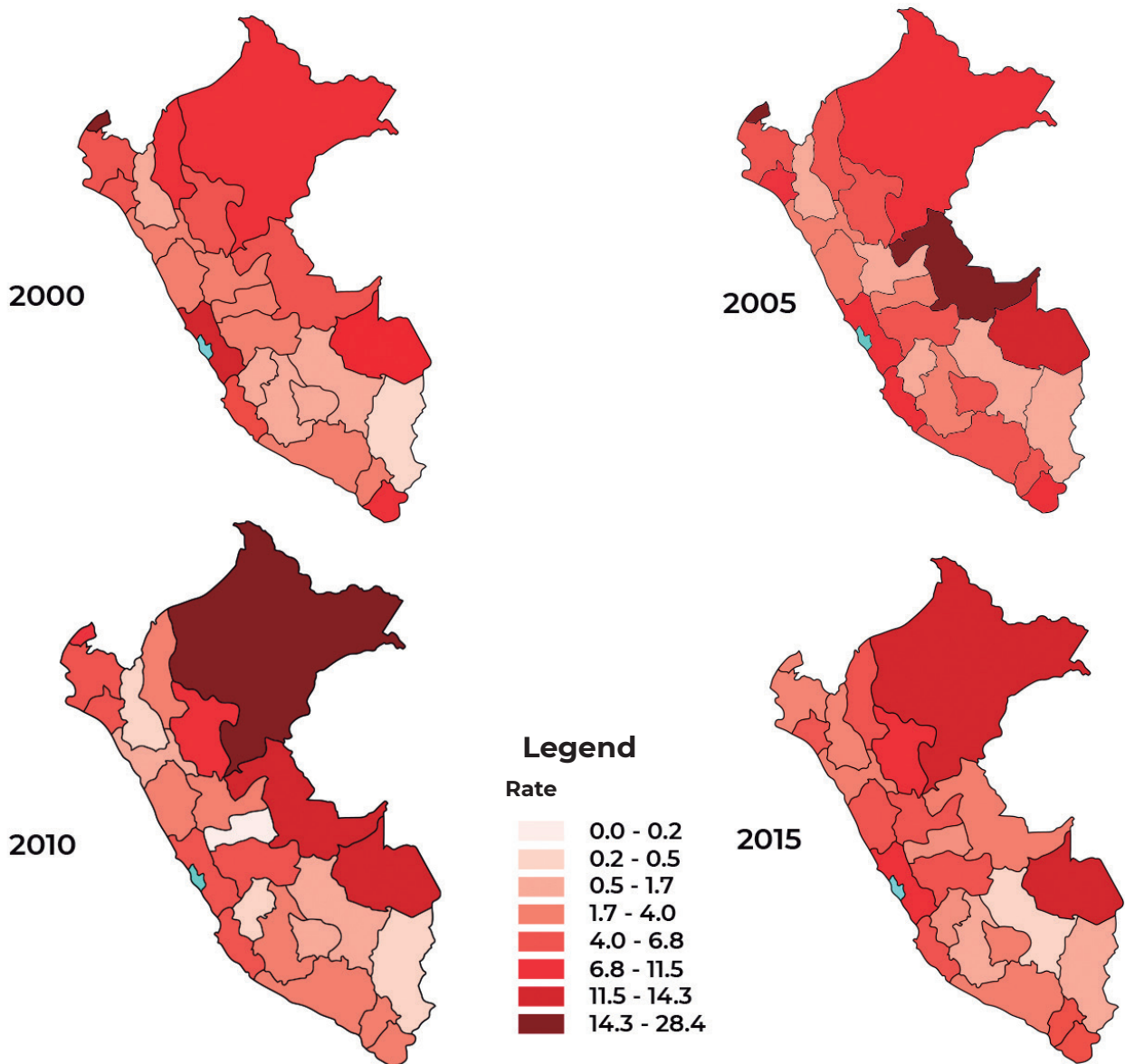
not significant, increase. In 2015, mortality from HIV / AIDS was higher in the urban areas, in the Jungle and in the poor population and in the departments (see maps) of Loreto, Madre de Dios, San Martín and Lima (including Callao).

### Age-standardized mortality rate due to HIV / AIDS by geographic region. Peru: 2000-2015



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

**Age-standardized mortality rate due to HIV / AIDS.  
Peru: 2000, 2005, 2010 and 2015**



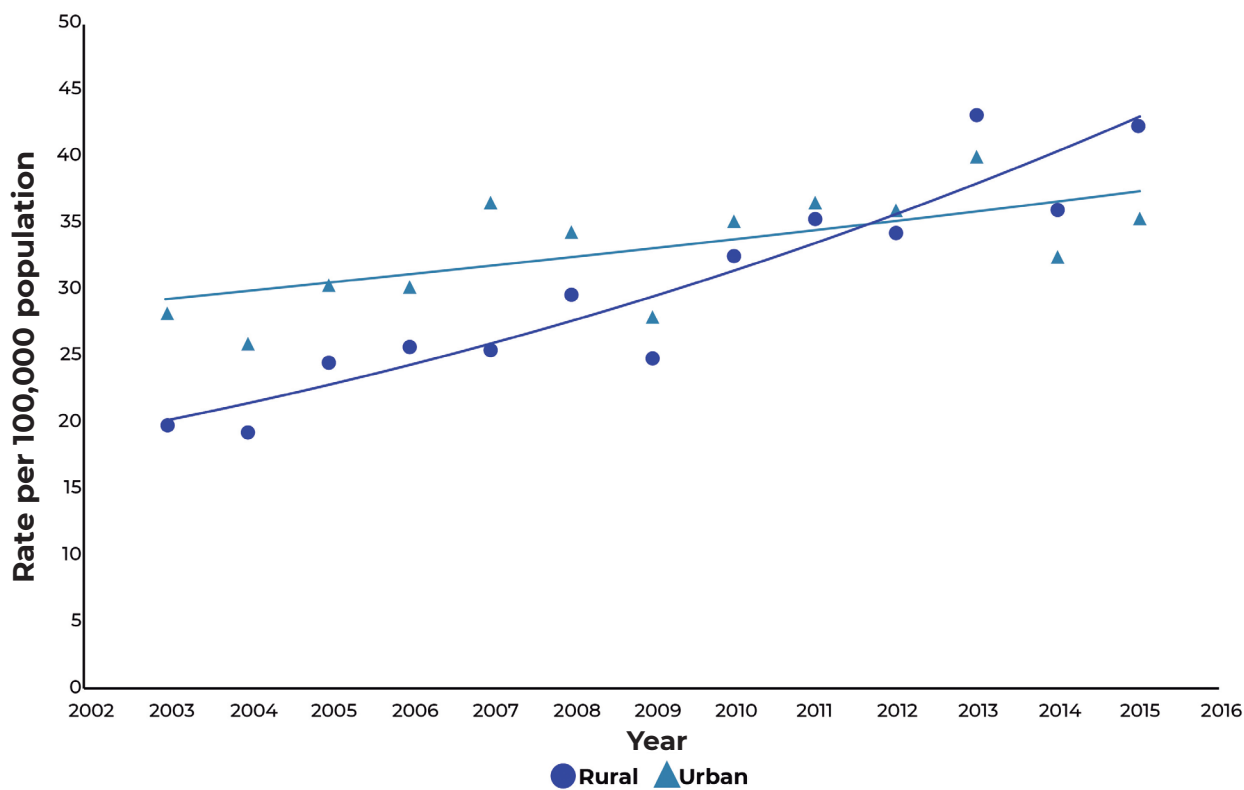
Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

## Mortality from the cerebrovascular disease and diabetes mellitus increased nationally and in all demographic groups and geographic areas

The mortality rate from cerebrovascular disease increased nationally and in all demographic groups

and geographic areas in the period 2003-2015. In 2015, the highest mortality rate occurred in rural areas (see figure) and in the poor population. The departments of Amazonas, San Martín, Apurímac and Cajamarca had the highest rates.

**Age-adjusted mortality rate from cerebrovascular disease by rural-urban area.  
Peru: 2003-2015**

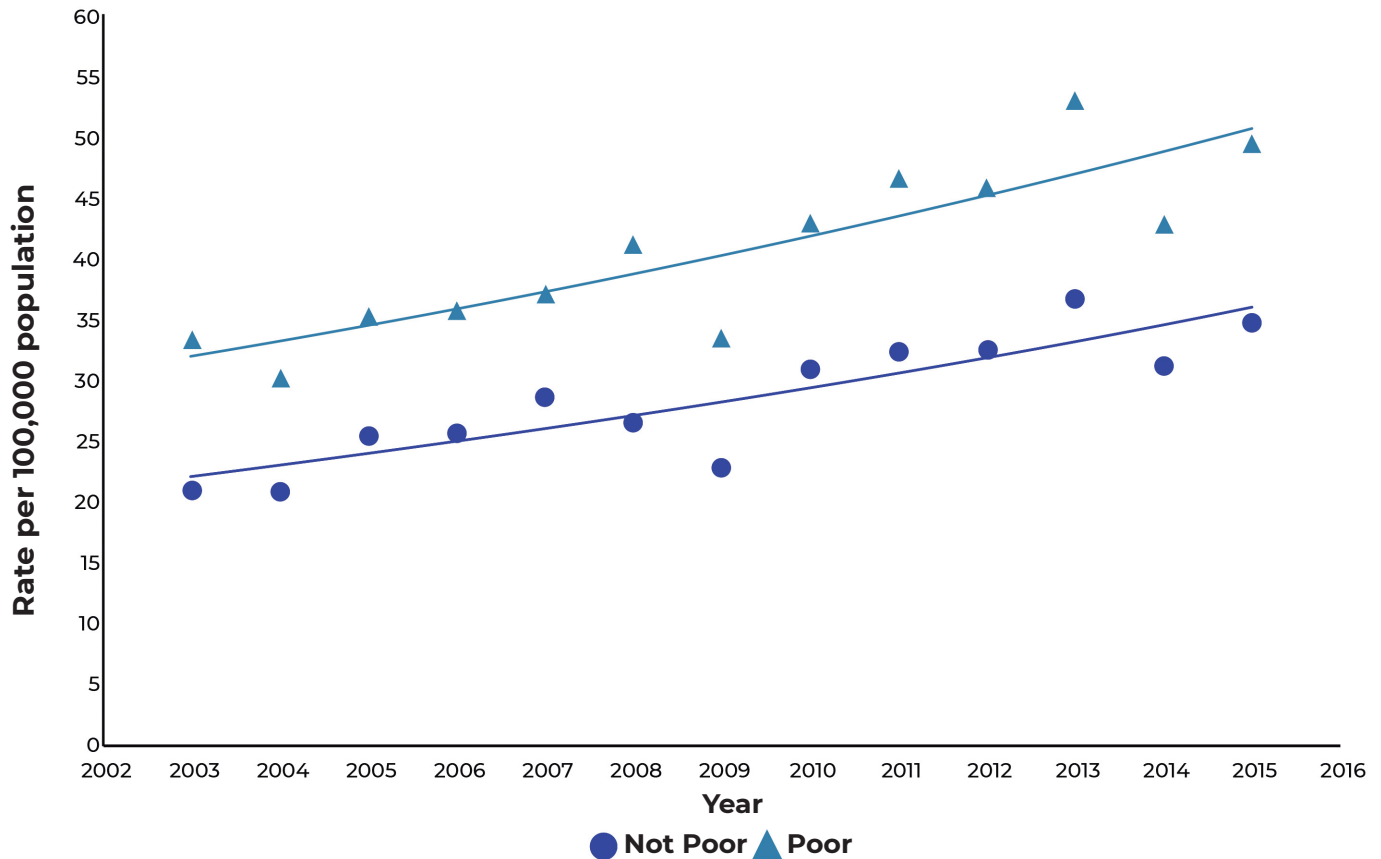


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

The inequality in mortality rates from cerebrovascular disease by geographic region and by poverty condition did not change substantially in the last 10 years. (see figure) The increase in mortality rate

from cerebrovascular disease has been greater in the rural area; if this trend continues, an increase in the inequality in mortality from this cause between rural and urban area can be expected in subsequent years.

### Age-standardized mortality rate from cerebrovascular disease by poverty condition. Peru: 2003-2015



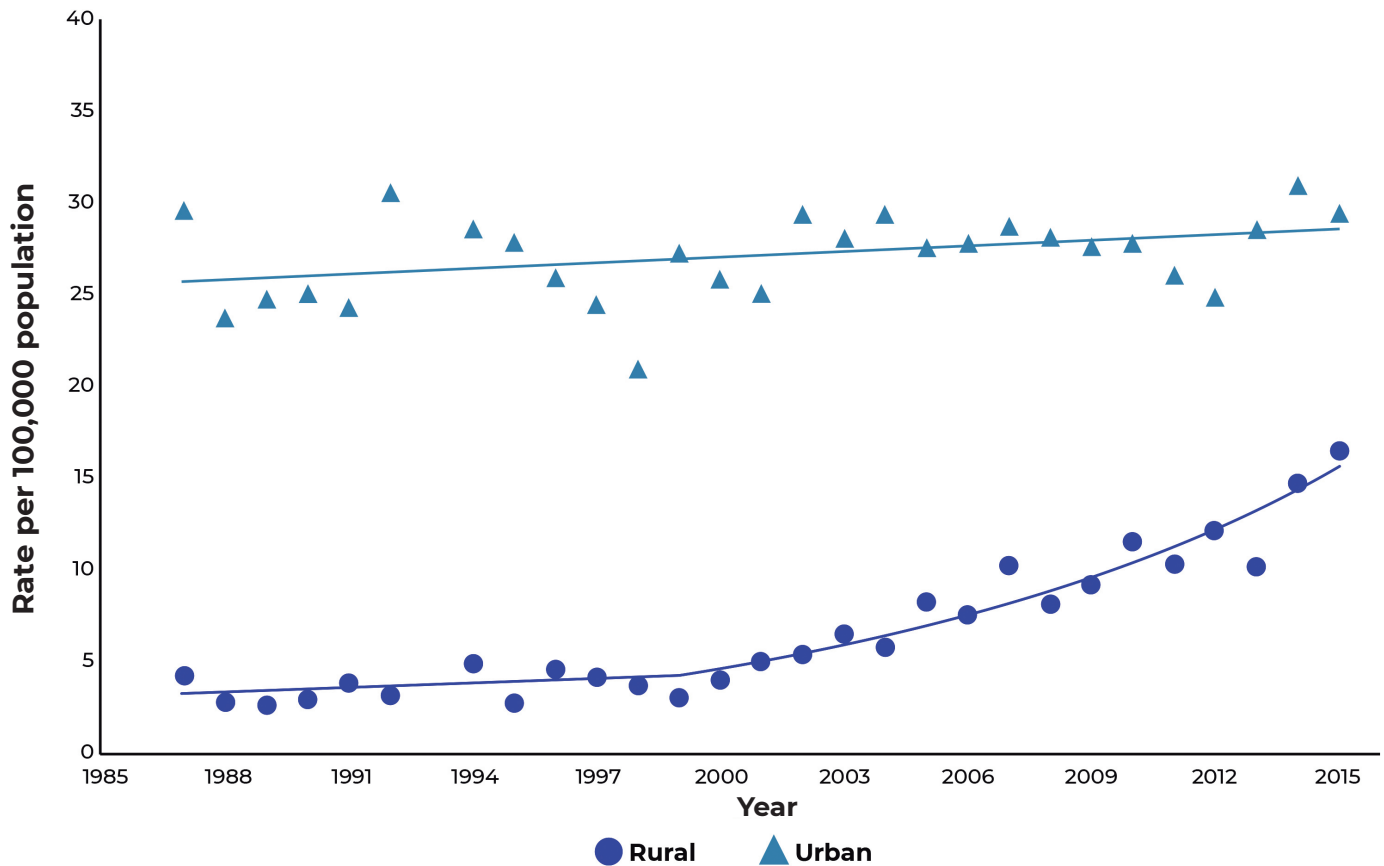
Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA



Nationally, there has been an increase in mortality from diabetes mellitus over the last 30 years. The populations most affected have been those living in urban areas and in the Coast and the Jungle regions, and the non-poor population. Although, the inequality in mortality rates in the rural and urban areas

decreased, this occurred at the expense of an increase in mortality in the rural areas, in the last 15 years. If this trend continues, the inequality would continue to decline with rural areas at a disadvantage. (see figure)

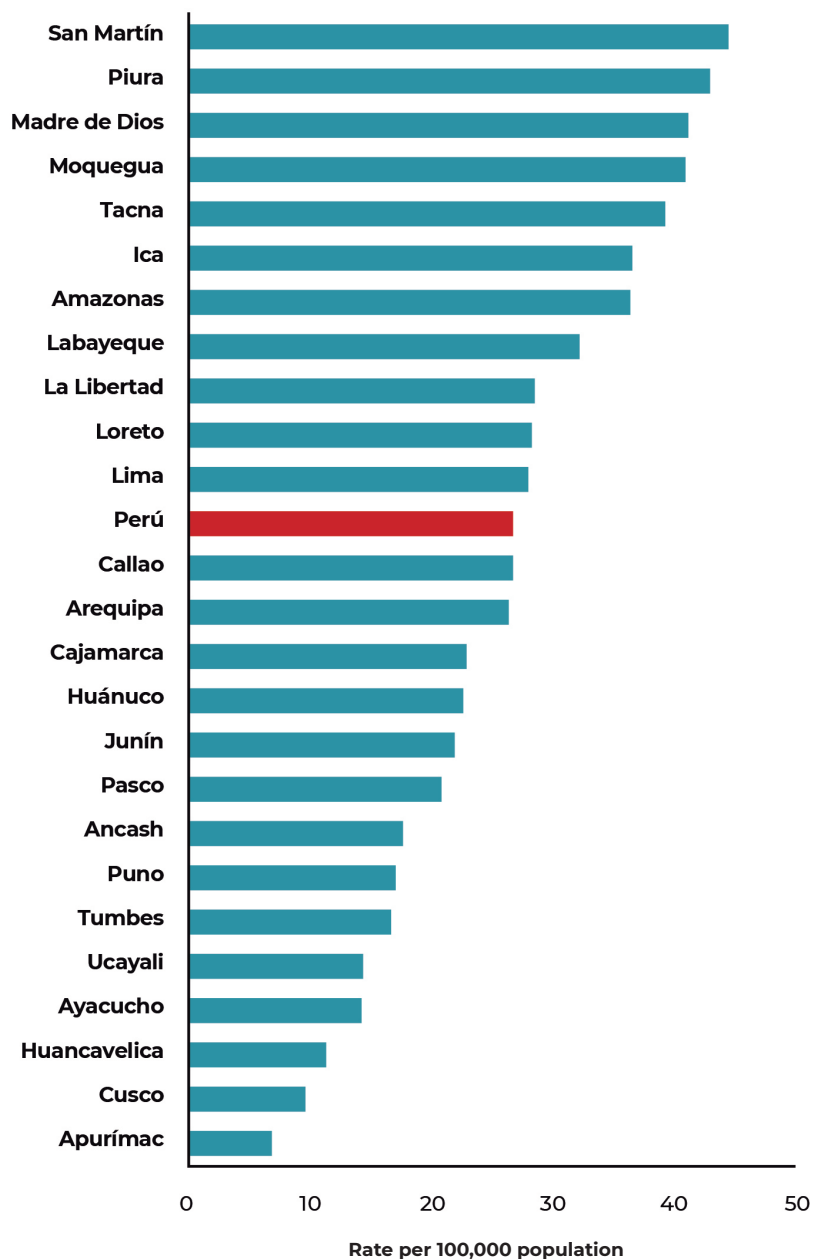
**Age-adjusted mortality rate due to diabetes mellitus by rural-urban area.  
Peru: 1987-2015**



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

## Age-adjusted mortality rate from diabetes mellitus by department. Peru: 2015

The departments of San Martín, Piura, Madre de Dios and Moquegua had the highest mortality rates due to diabetes mellitus in 2015.

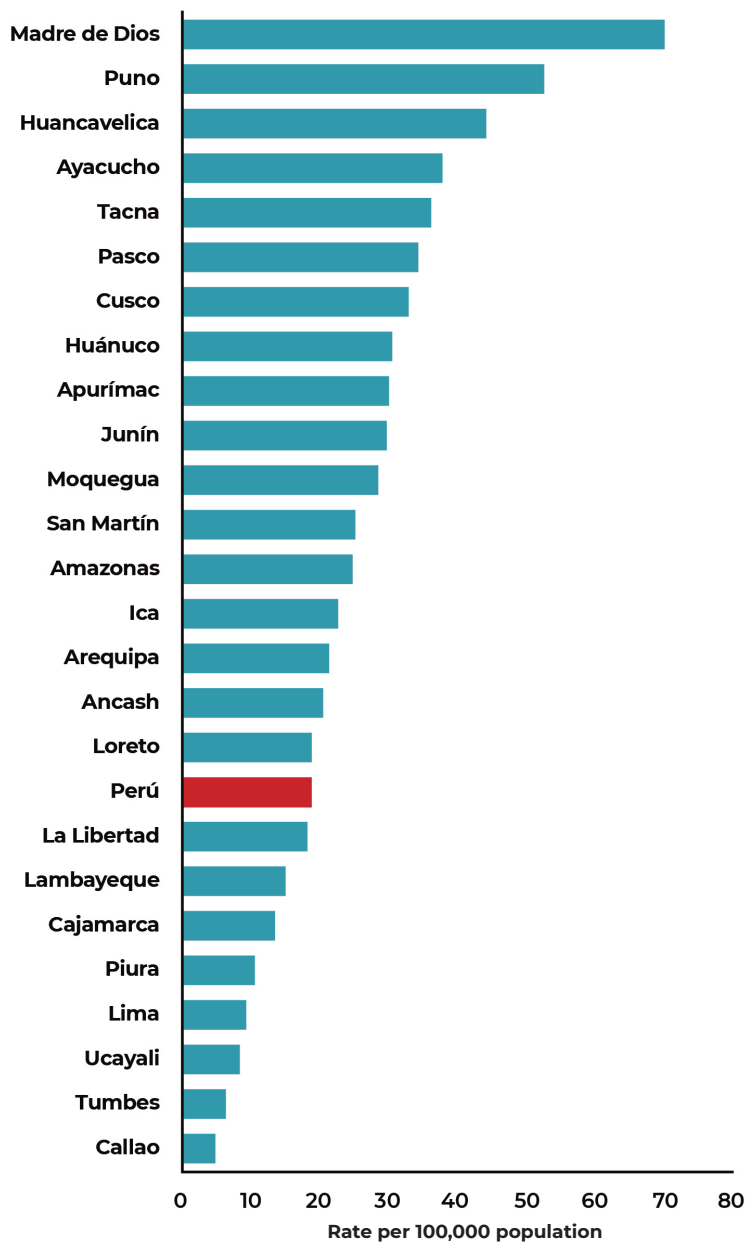


Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA

## Age-standardized mortality rate due to traffic injuries by department. Peru 2015

### Deaths from traffic injuries were the seventh leading cause of death, an increase from 2003.

In 2015, the mortality rate was highest in men, in rural areas, in the Mountain region and in the poor population. Traffic injuries were the leading cause of death in adolescents, young adults and adults. The departments with highest mortality due to traffic injuries in 2015 were Madre de Dios, Puno, Huancavelica and Ayacucho.



Source: Mortality database 1986-2015. General Office of Information Technologies. MINSA



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