

ADDRESSING HEALTH INEQUALITIES

What mortality tells us about
Social Determinants of Health
(SDH)

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Statistics South Africa



SOCIAL DETERMINANTS OF HEALTH

- Social determinants of Health (SDH) are the conditions in which people are born, grow, live and age and the wider set of forces and systems shaping their conditions for their daily lives.
- These forces and systems include economic policies, systems, development agendas, social norms, social policies and political systems.
- Dealing with and understanding SDH can help support, guide and strengthen countries to develop, implement, monitor and evaluate initiatives to promote health equity.

(World Health Organization)

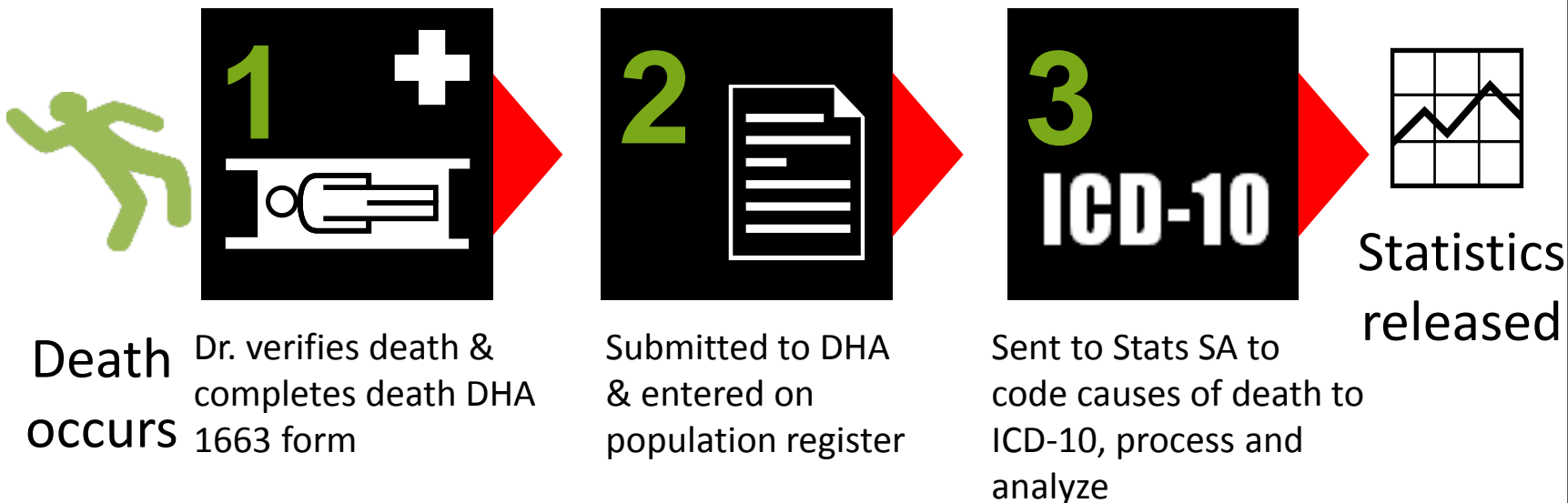
HEALTH EQUITY AND SHD

- Critical components of the Post-2015 Sustainable Development Goals agenda
 - Addressing both SHD and Universal health Coverage (UCH) in an integrated manner
- Health in the post-2015 development agenda: A need for a social determinants approach
 - Adopting improved governance for health development
 - Promote participation in policy-making and implementation
 - Further reorient the care delivery system towards promoting health and reducing health inequities
 - Strengthen global governance and collaboration
 - Monitor progress and increase accountability

Death:

a permanent disappearance of all evidence of life after a live birth has occurred

From death to statistics



Births and Deaths Registration Act, 1992

Statistics Act, 1999

Reporting of causes of death is based on the underlying cause:

“the disease or injury that initiated the train of events leading directly to death”

Strengths of death registration data

- **South Africa as a leader in sub-Saharan Africa**
 - Only country in Africa using an automated system (IRIS) for coding causes of death
 - The only country in Africa using the WHO data editing tools (ANACOD & CoDEdit)
- **Training of doctors on death certification**
 - To improve the quality of causes of death statistics
- **Improving Civil Registration and Vital Statistics Systems (CRVS)**
 - There are efforts at global, continental and country levels to improve civil registration
- **Time lag between occurrence and reporting is 11 months**
 - Considerations underway to report on deaths on a quarterly basis

Limitations of death registration data

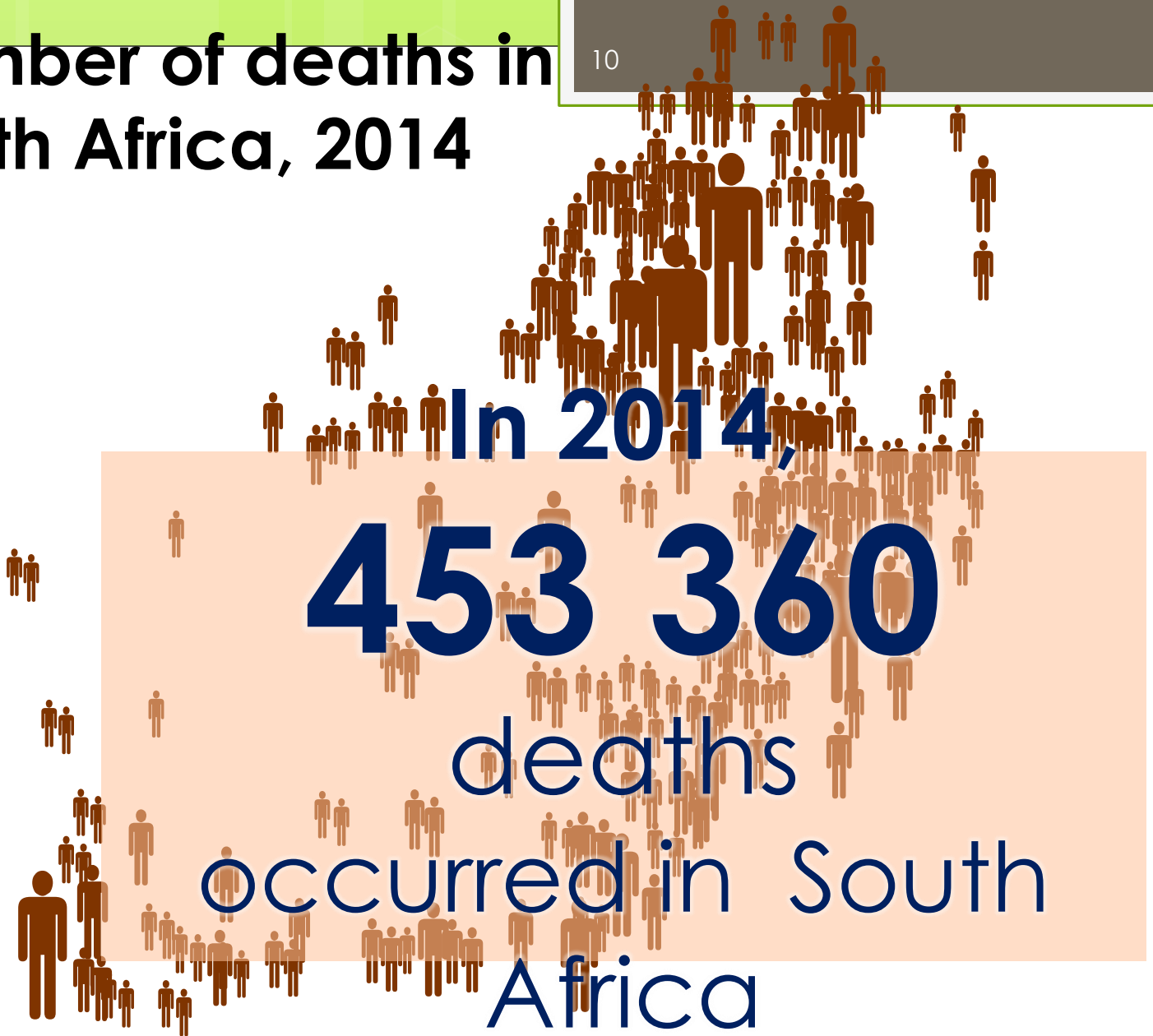
- **48,0% of deaths occurred in healthcare facilities**
 - May compromise proper diagnosis of the causes of death
- **Statistics are coded from what is recorded**
 - Not all information is accurate or fully completed
 - Misreporting and insufficient reporting of causes of death
 - High proportion of non-natural deaths unspecified to give a conclusive profile
- **Data processing is time-consuming**
 - Timeliness of the report is affected
- **Delayed transfer of data from DHA**
 - Affects number of deaths processed



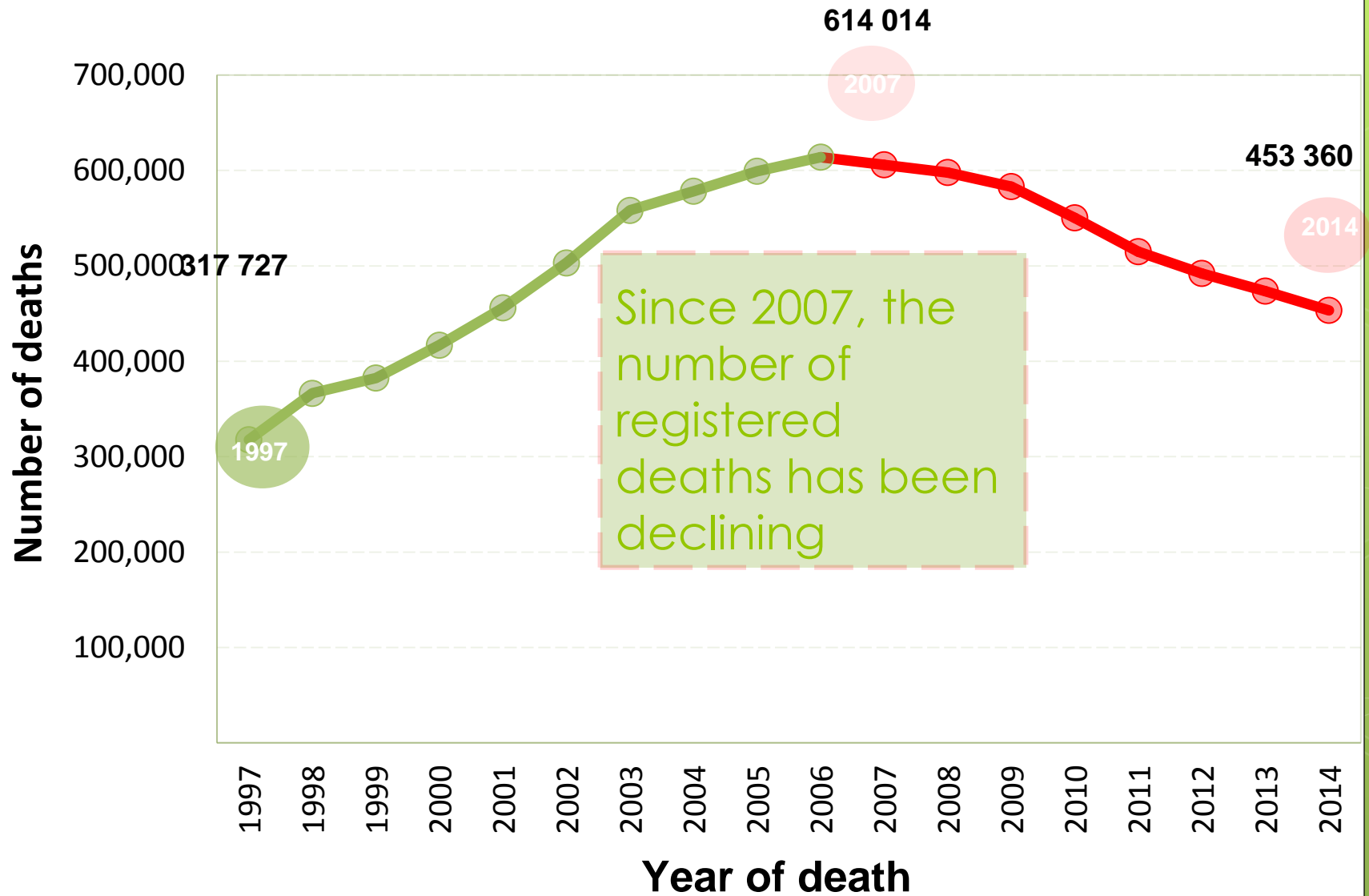
Key findings

Number of deaths in South Africa, 2014

10



Number of deaths in South Africa, 1997-2014





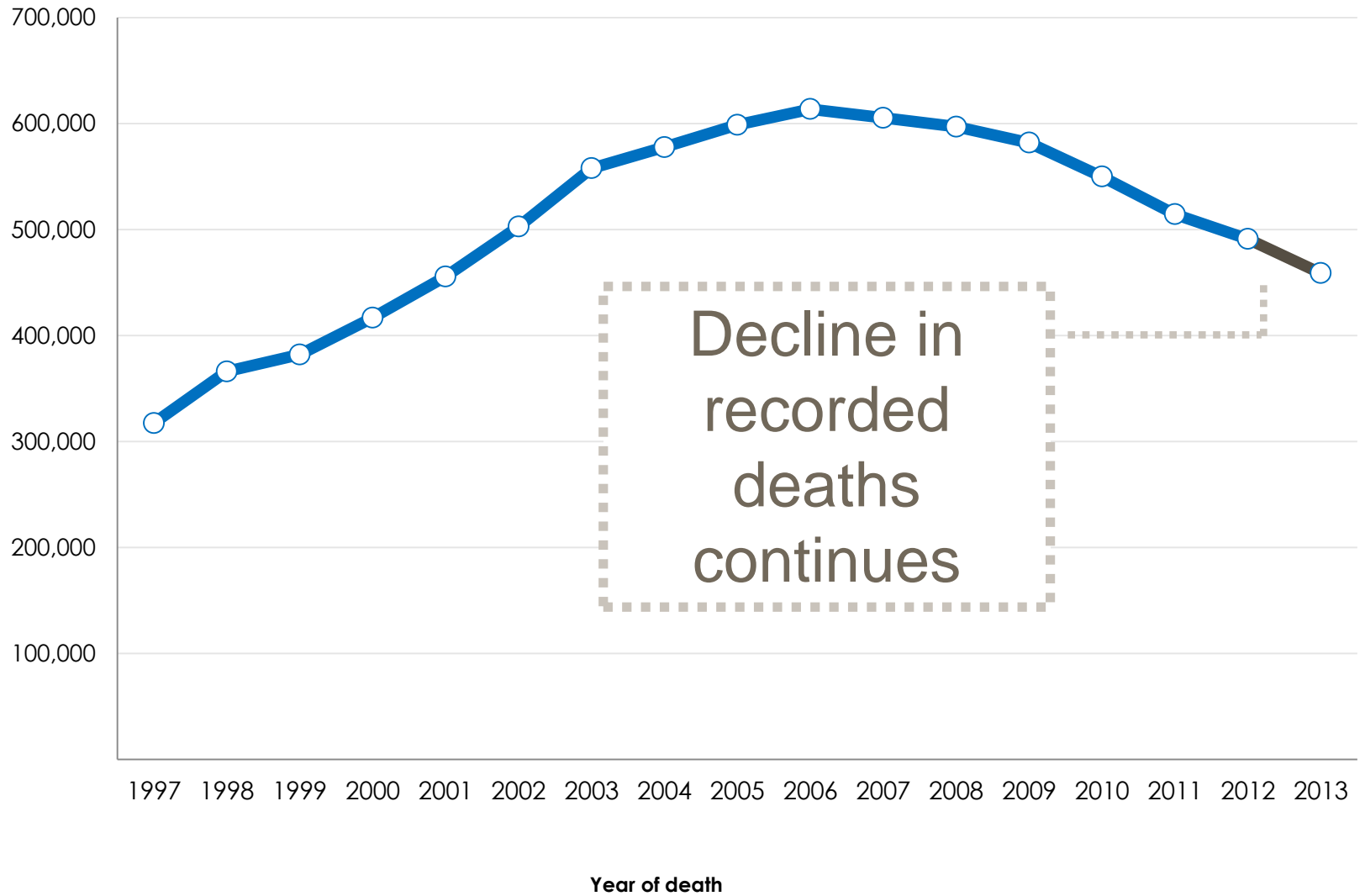
In 2013,

458 933

deaths

occurred in South Africa

Number of deaths



Decline in recorded deaths continues

Demographic profile

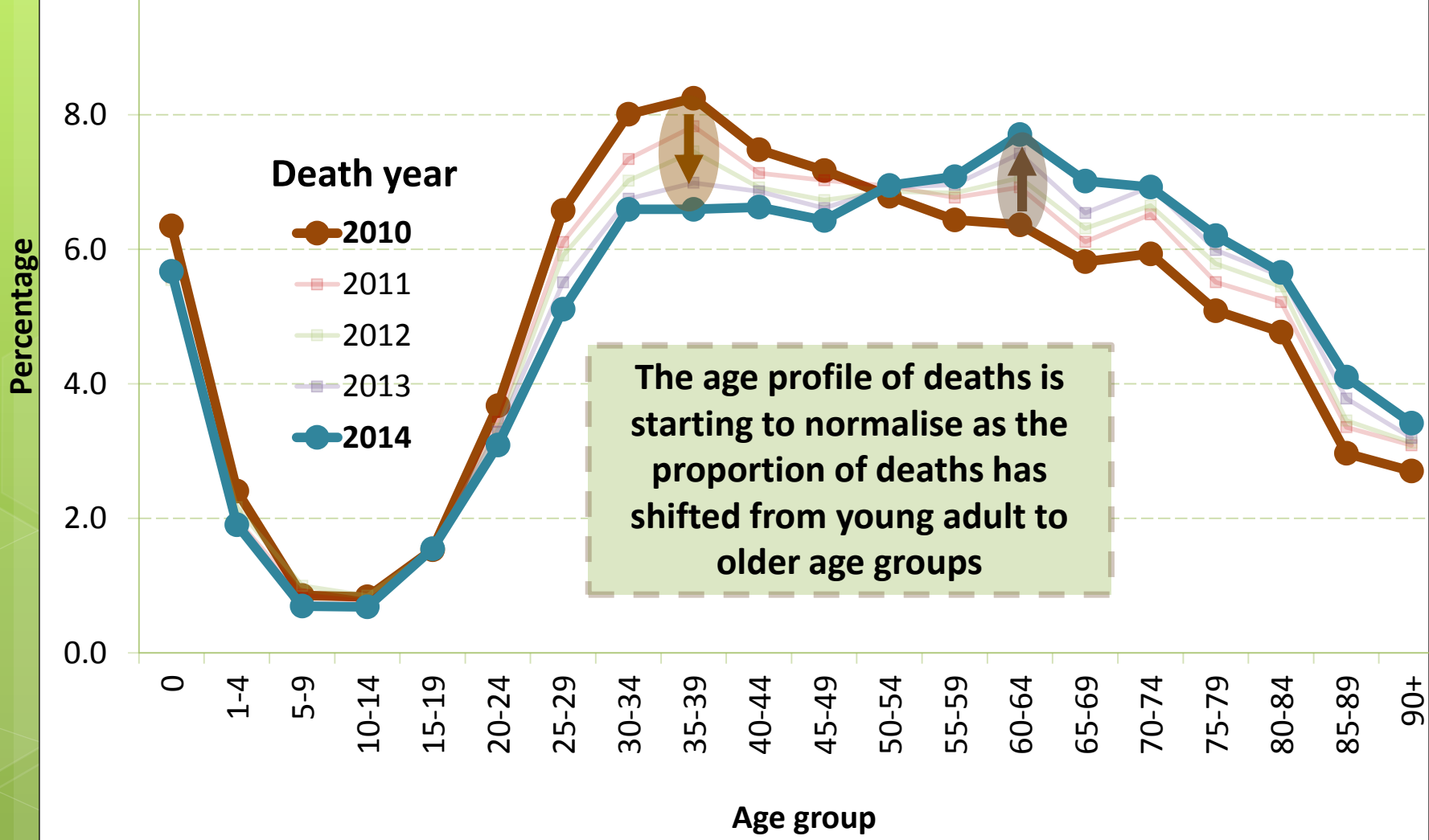


Age

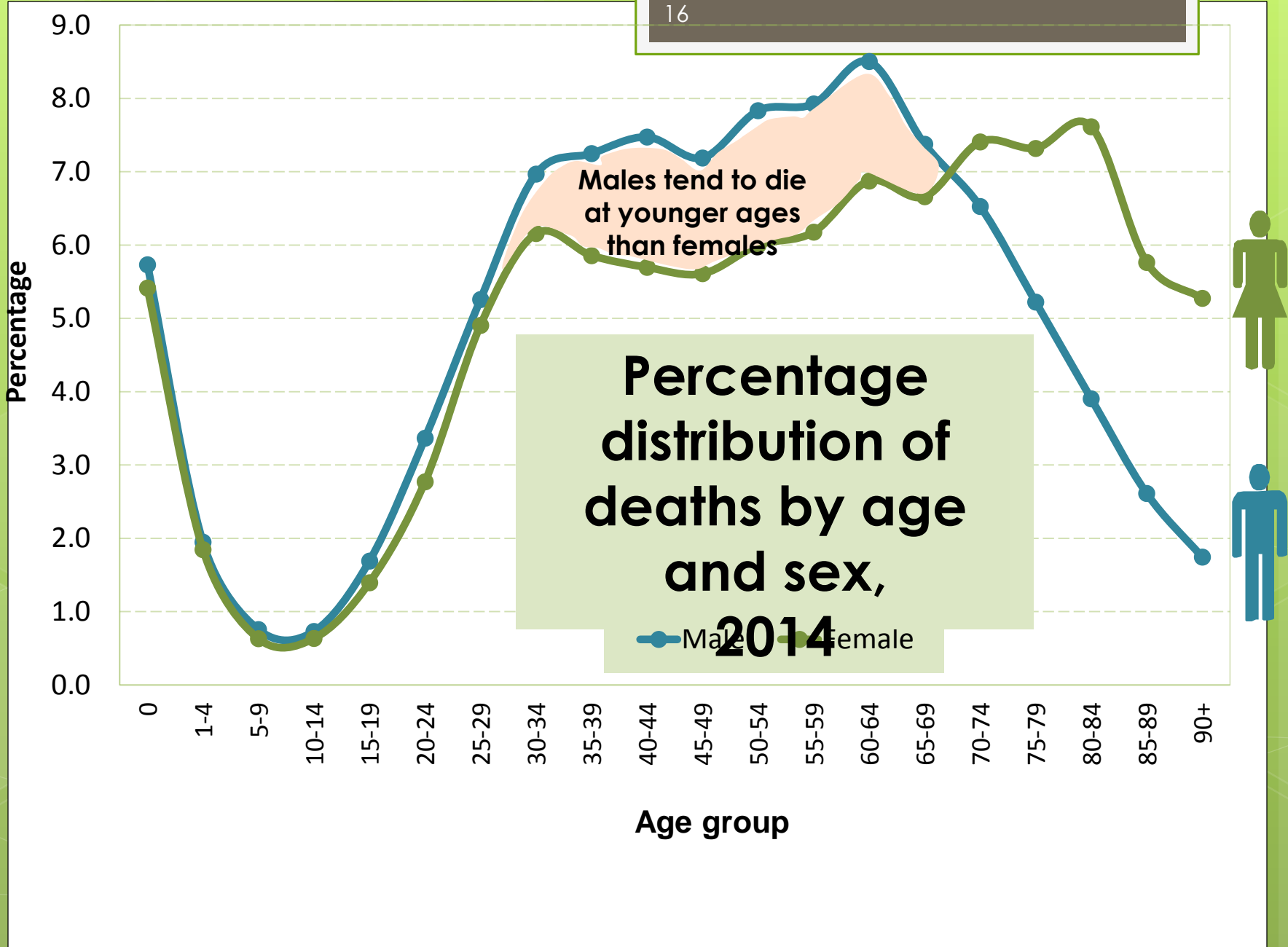
Sex

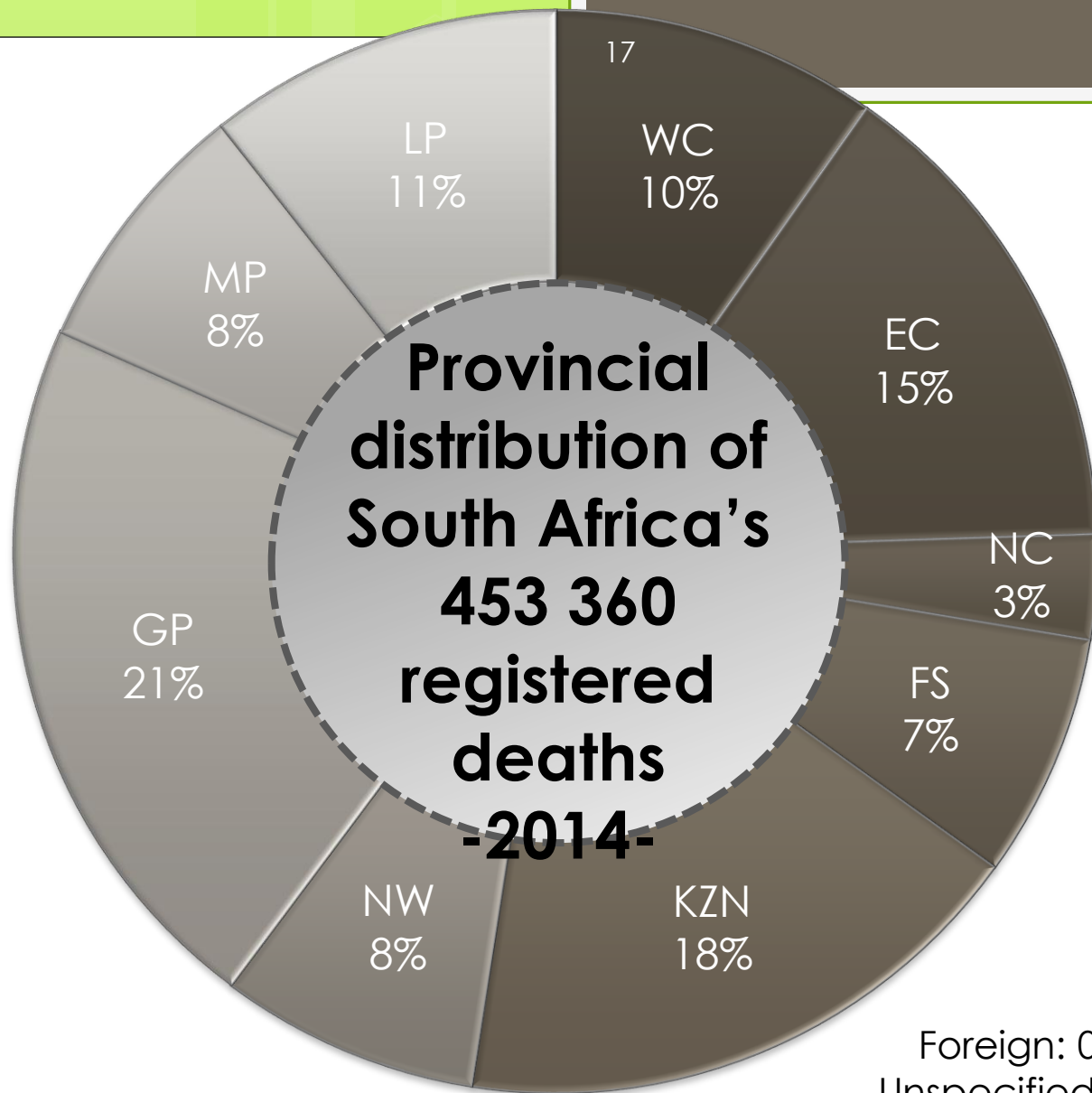
**Geo
graphy**

Percentage of deaths by age and year, 2010-2014



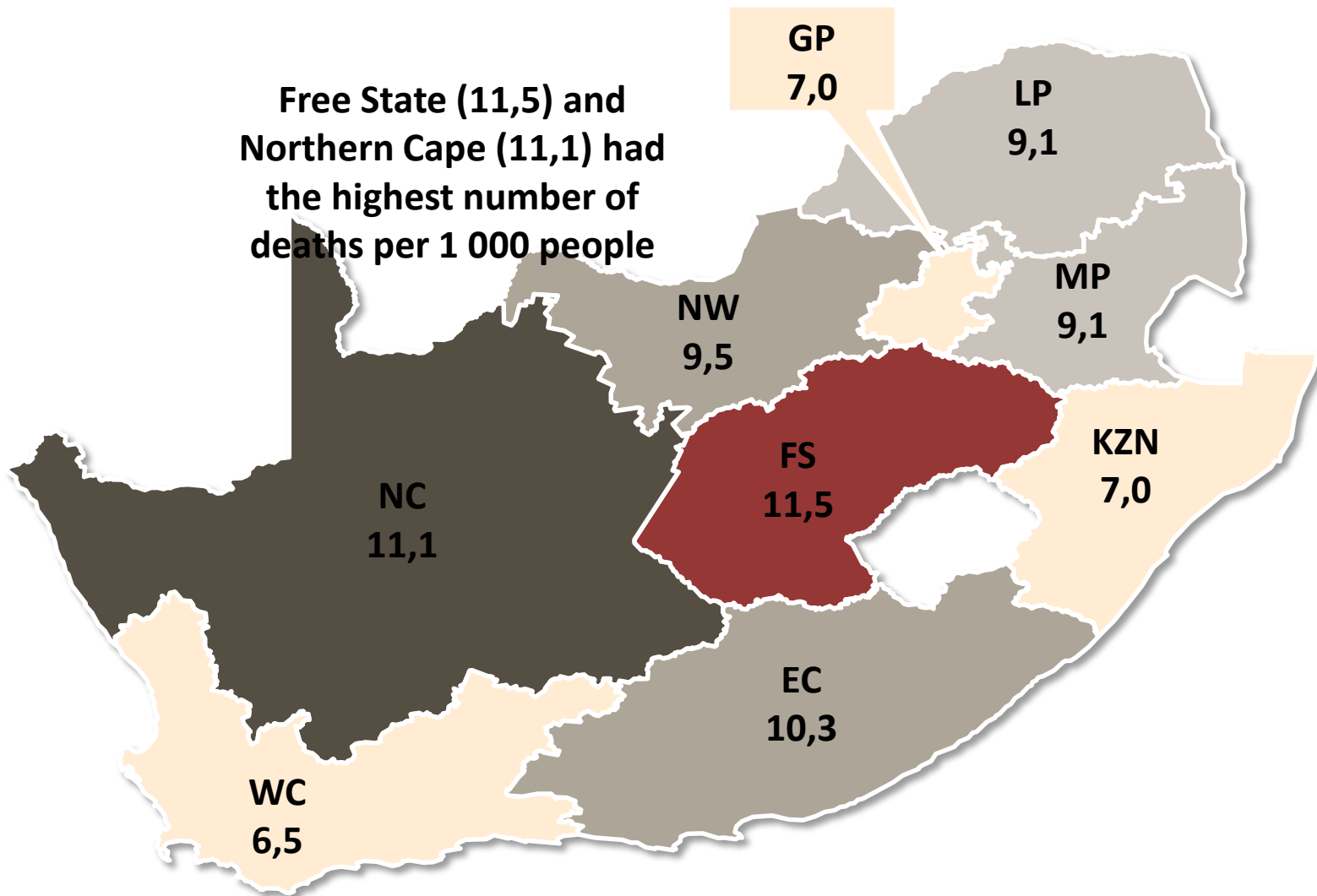
The age profile of deaths is starting to normalise as the proportion of deaths has shifted from young adult to older age groups





Foreign: 0,2%
Unspecified: 0,3%

Age standardised deaths¹⁸ per 1 000 population, 2014



How we die



Communicable diseases

- Deaths primarily attributed to diseases that are infectious, are of short duration and fast progression e.g TB; HIV

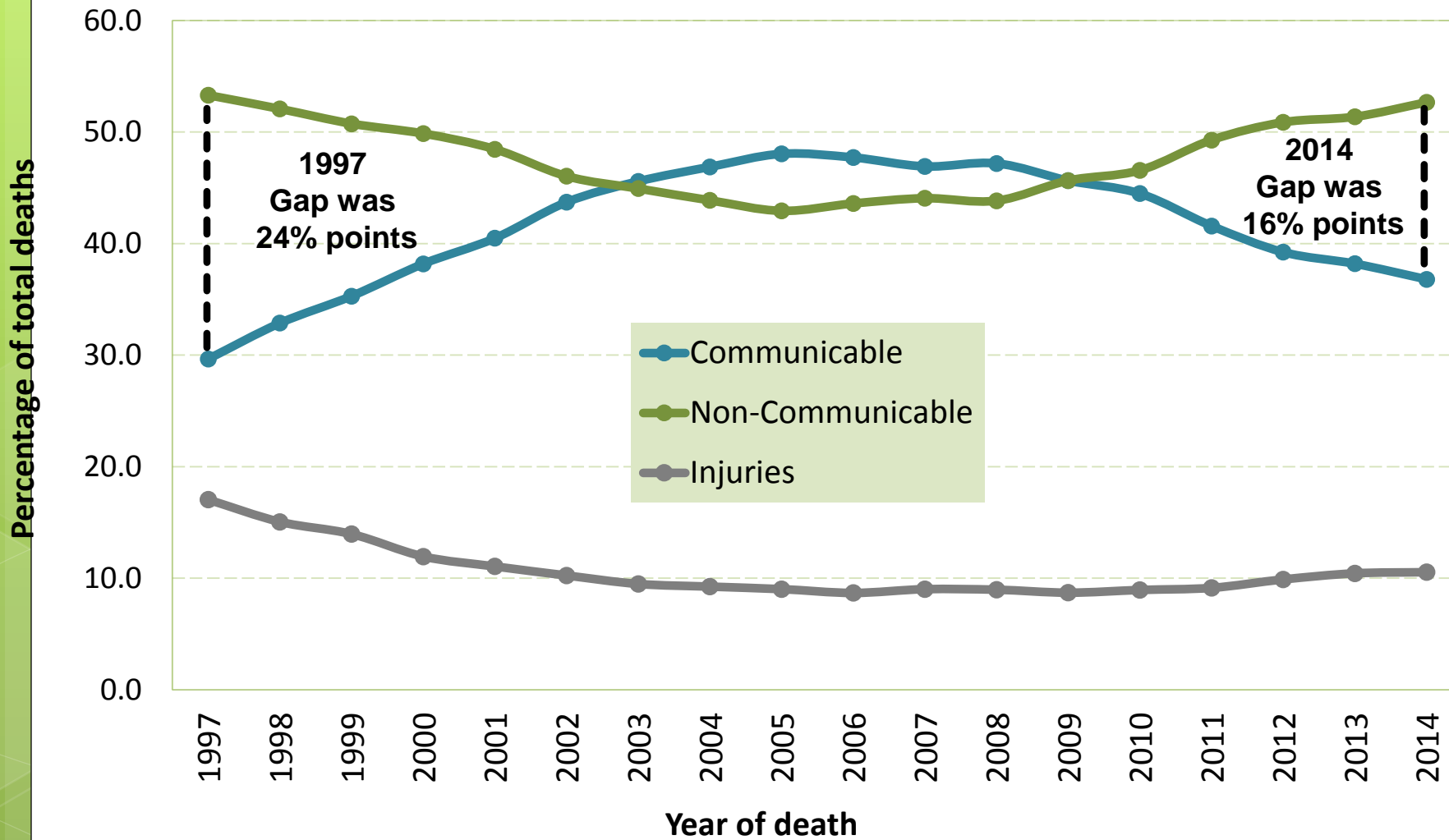
Non-communicable diseases

- Deaths primarily attributed to diseases that are non-infectious, are of long duration and slow progression e.g stroke; diabetes

Injuries

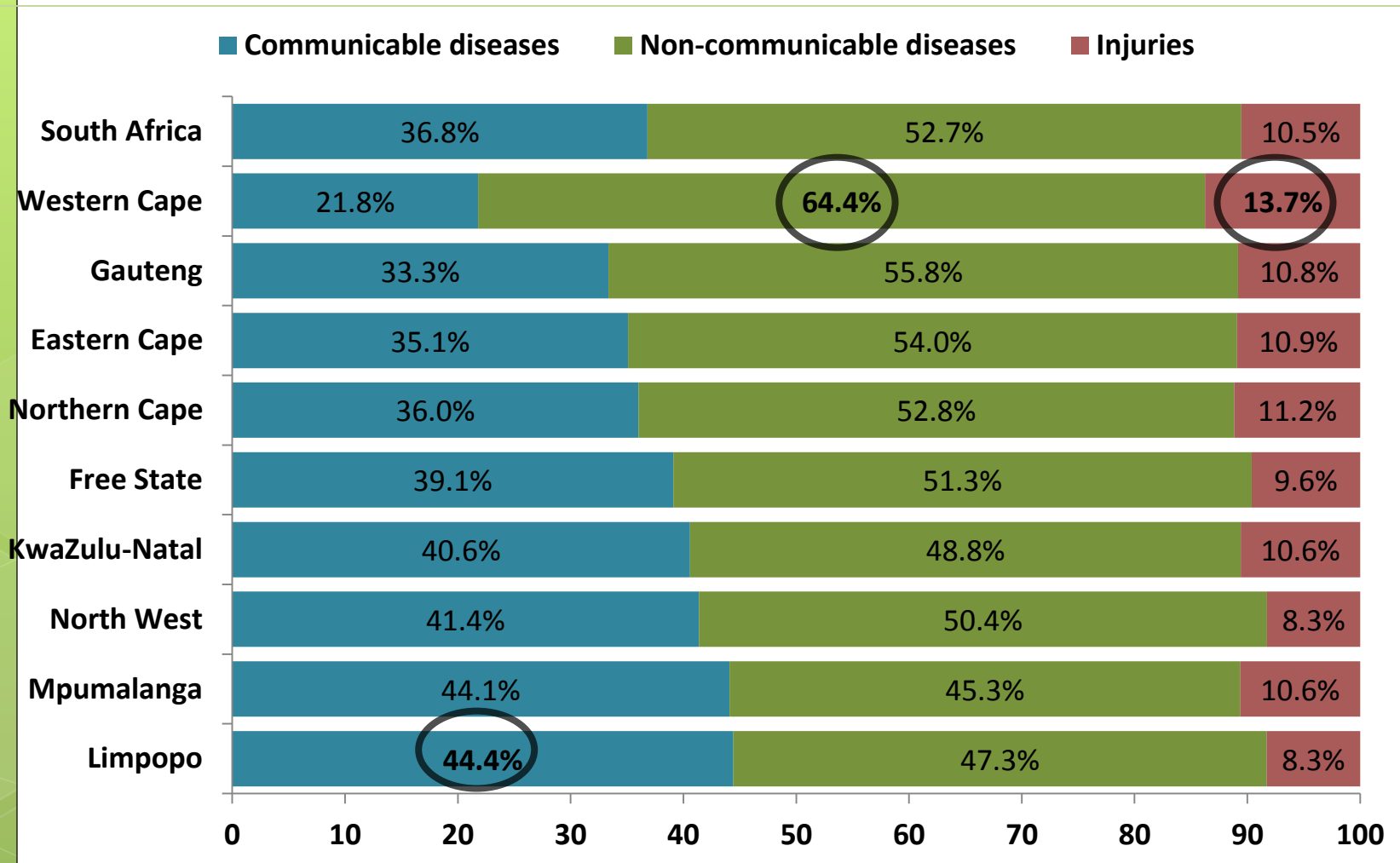
- e.g accidents; assault; suicide

Percentage of deaths: Communicable, Non-communicable and Injuries

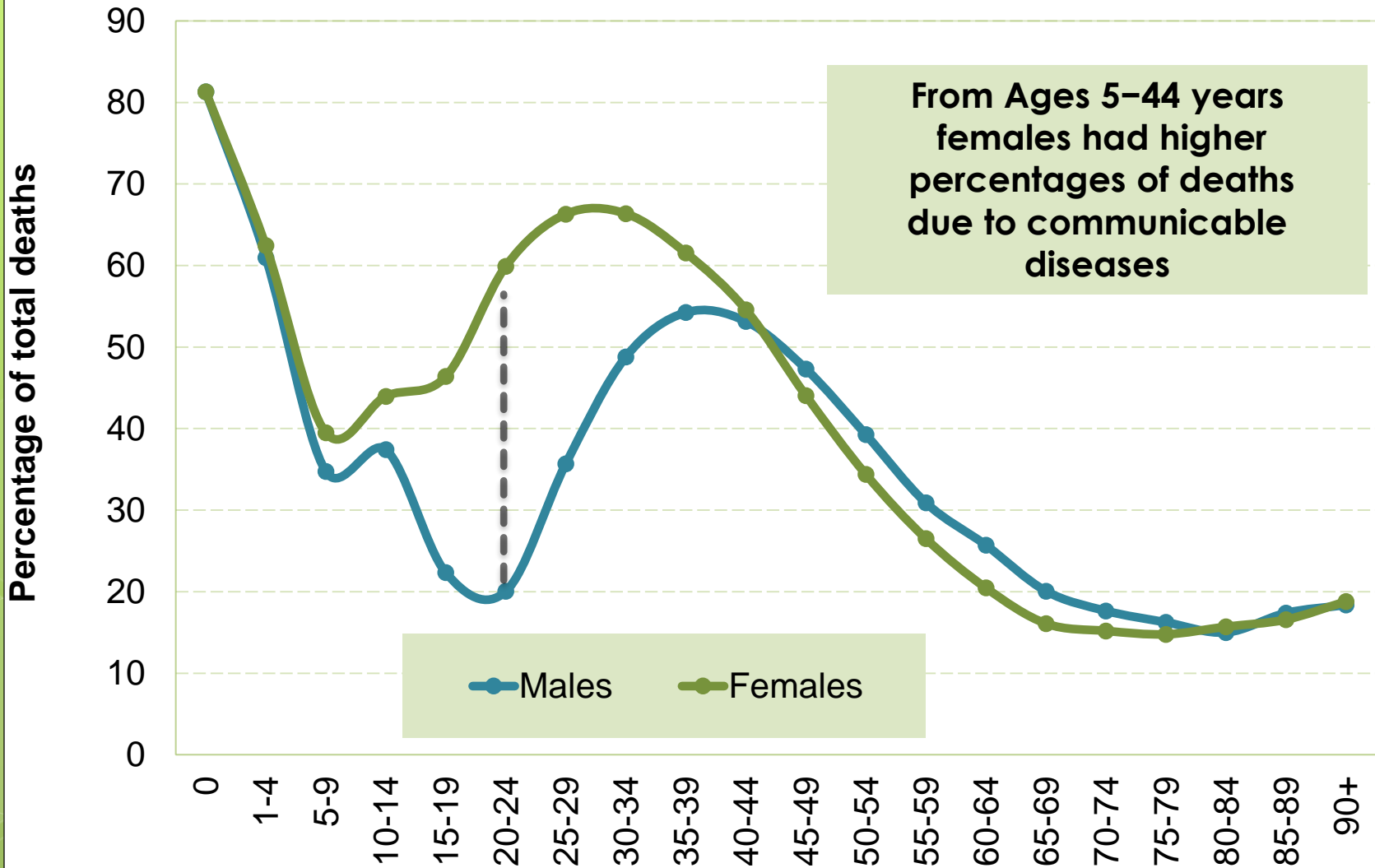


Percentage of communicable, non-communicable and injuries by Province, 2014

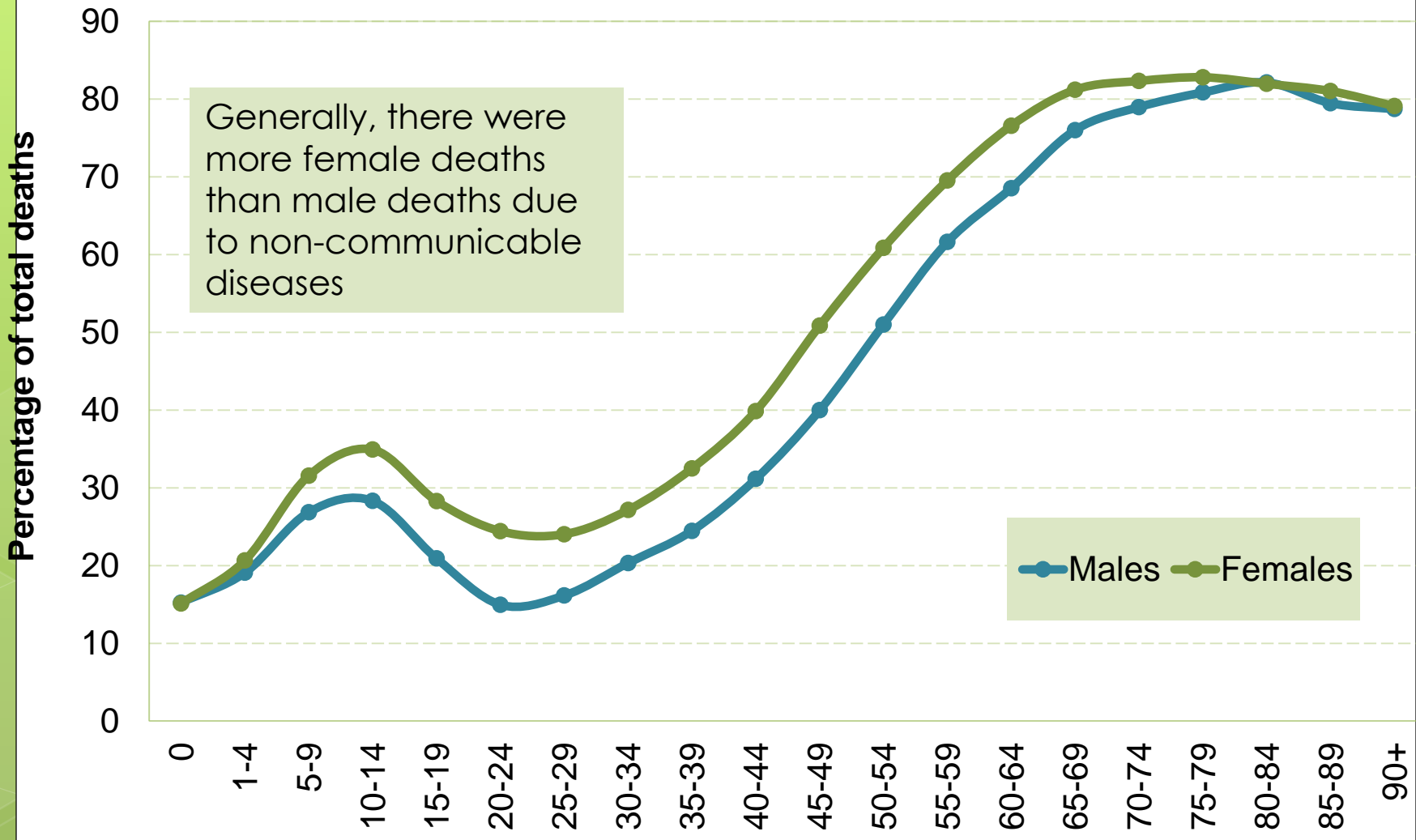
21



Percentage of deaths: Communicable

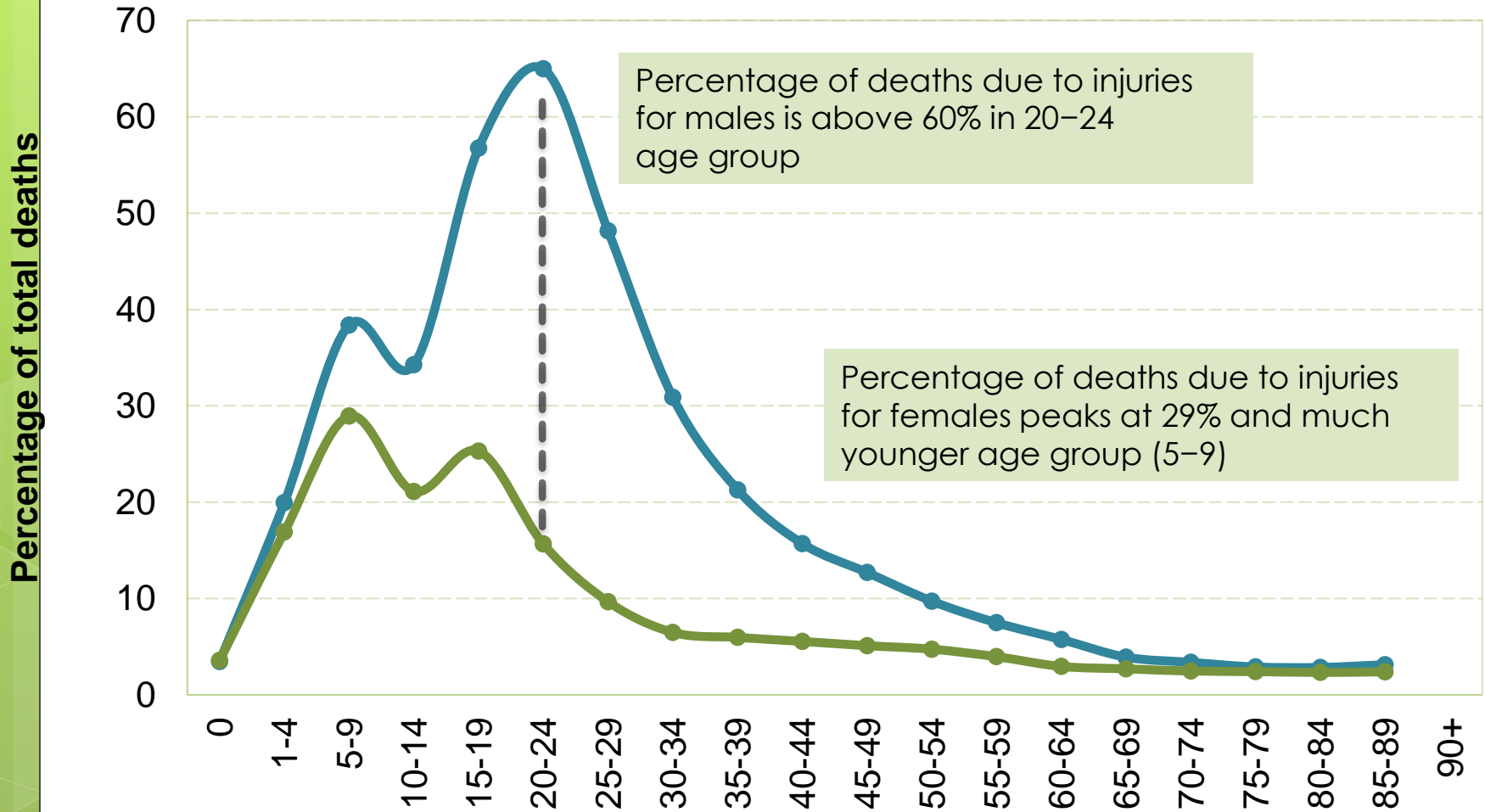


Percentage of deaths: Non-communicable



Percentage of deaths: Injuries

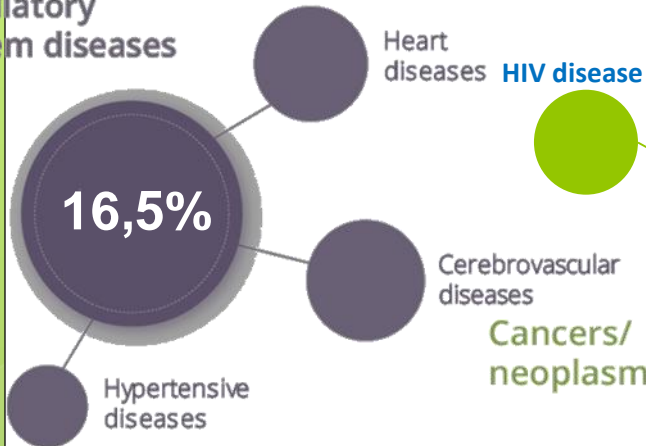
24



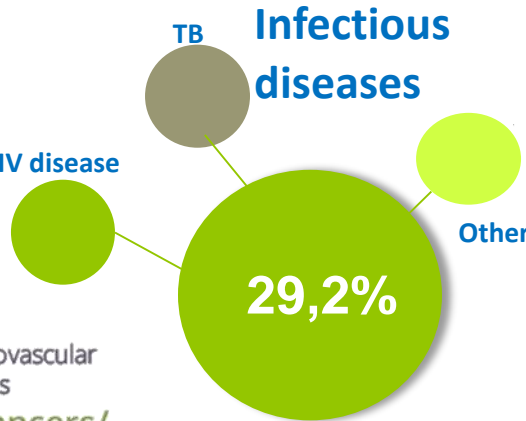
**Total Deaths
453 360**

Main groups of causes of death, 2014

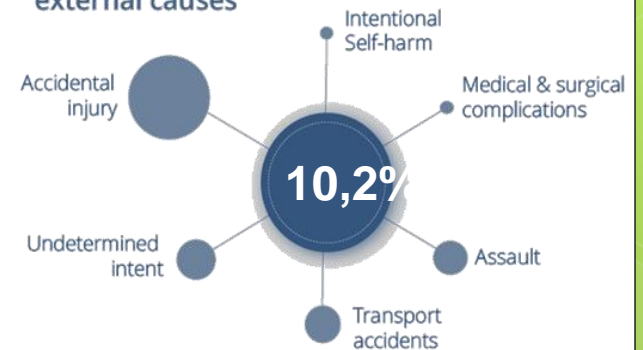
Circulatory system diseases



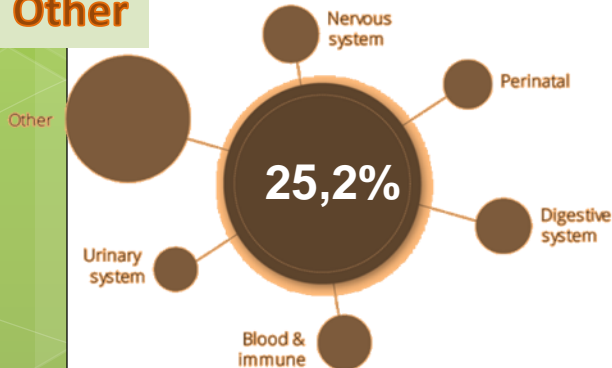
Infectious diseases



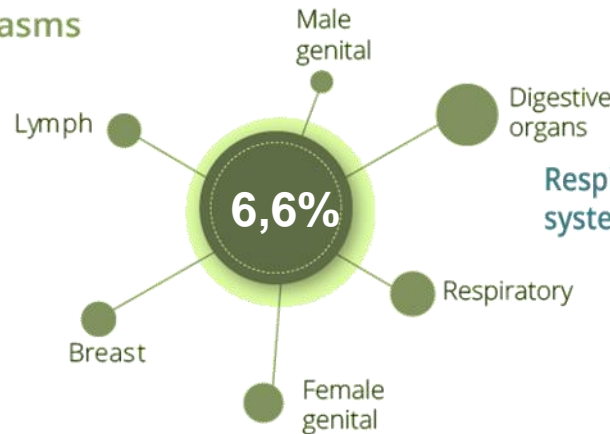
Accidents & other external causes



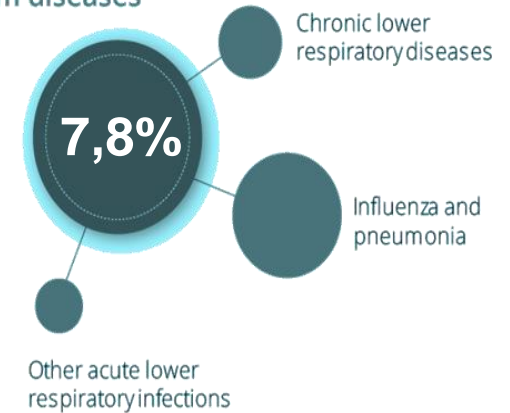
Other



Cancers/ neoplasms



Respiratory system diseases



Metabolic diseases

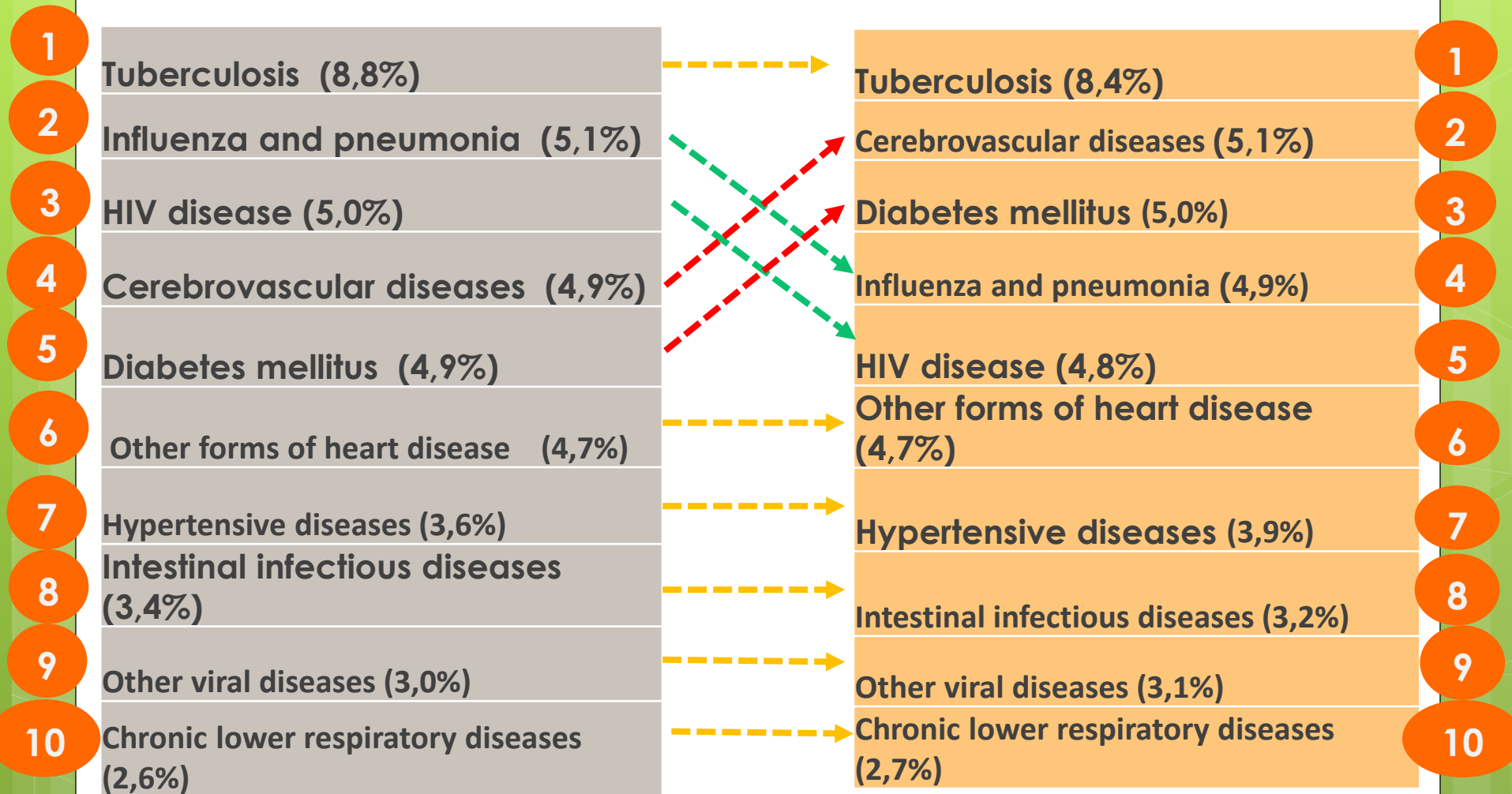


Top ten leading causes of death

26

2013

2014



Female:

- The top 10 causes consist of 25,3% Non-Communicable Diseases (NCDs) and 18,1% Communicable diseases (CDs)
- In the top 5 causes there are 4 NCD's and 1 CD

Male:

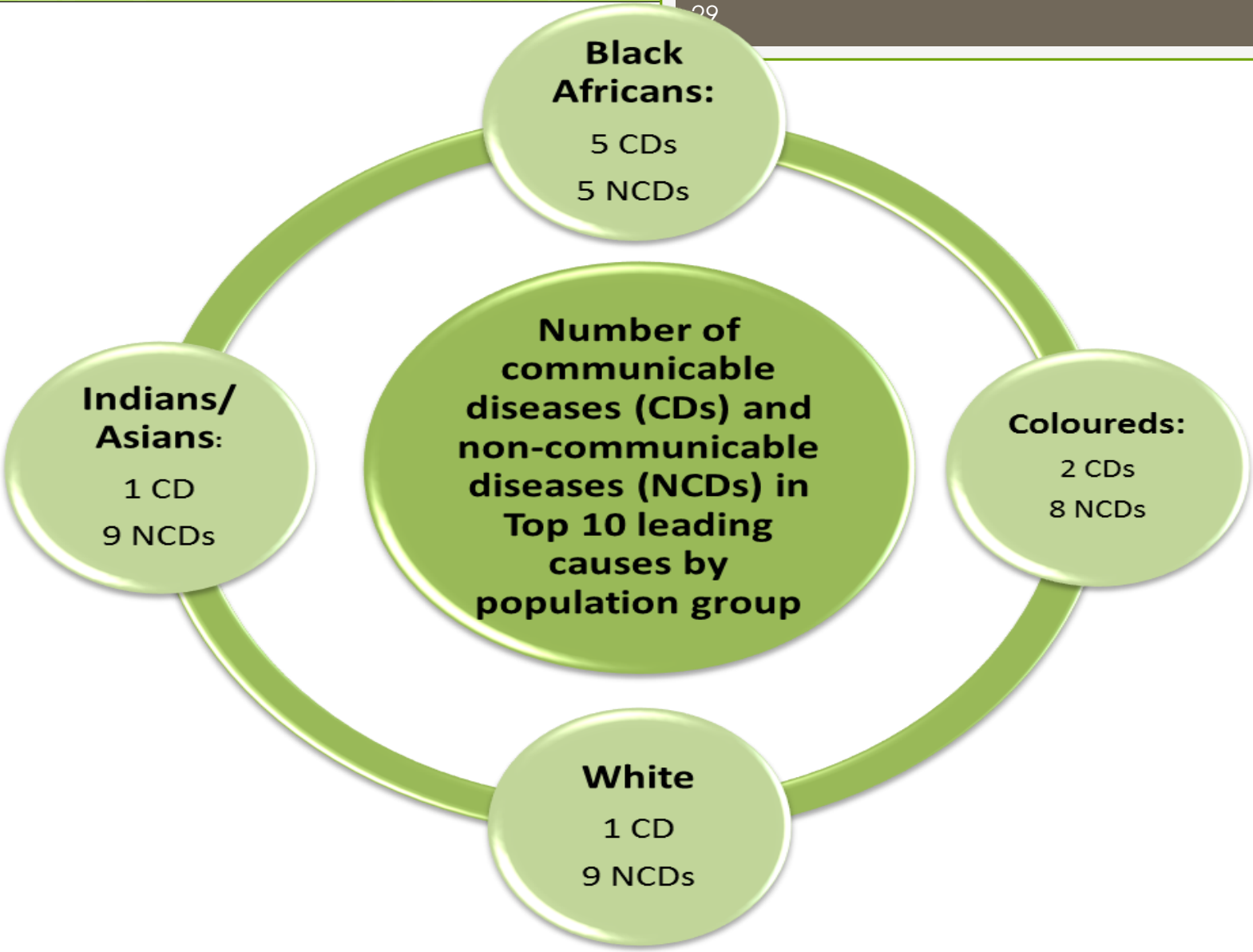
- The top 10 causes consist of 23,9% Non-Communicable Diseases (NCD's) and 24,7% Communicable Diseases (CD's).
- In the top 5 causes there are 3 NCD's and 2 CD's

Top ten leading causes of death by sex, 2014

28

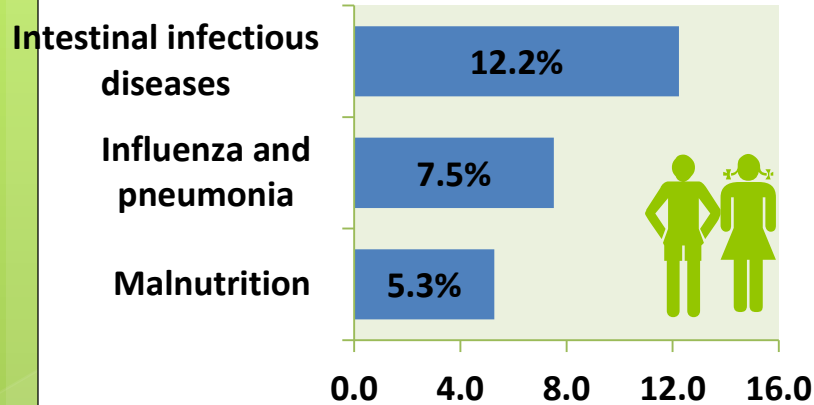
| | Male | | | Female | | |
|--|------|--------|-----|--------|--------|-----|
| | Rank | Number | % | Rank | Number | % |
| Tuberculosis | 1 | 22 545 | 9,5 | 1 | 15 174 | 7,1 |
| Influenza and pneumonia | 2 | 11 202 | 4,7 | 6 | 10 739 | 5,0 |
| Human immunodeficiency virus [HIV] disease | 3 | 11 160 | 4,7 | 7 | 10 685 | 5,0 |
| Cerebrovascular diseases | 4 | 9 908 | 4,2 | 3 | 13 149 | 6,1 |
| Other forms of heart disease | 5 | 9 872 | 4,2 | 4 | 11 418 | 5,3 |
| Diabetes mellitus | 6 | 8 914 | 3,8 | 2 | 13 819 | 6,4 |
| Chronic lower respiratory diseases | 7 | 7 300 | 3,1 | ... | ... | ... |
| Other viral diseases | 8 | 6 913 | 2,9 | 9 | 7 019 | 3,3 |
| Intestinal infectious diseases | 9 | 6 796 | 2,9 | 8 | 7 607 | 3,5 |
| Hypertensive diseases | 10 | 6 670 | 2,8 | 5 | 11 081 | 5,2 |
| Malignant neoplasms of female genital organs | ... | ... | ... | 10 | 4 913 | 2,3 |

Diabetes second leading COD for females and influenza and pneumonia for males

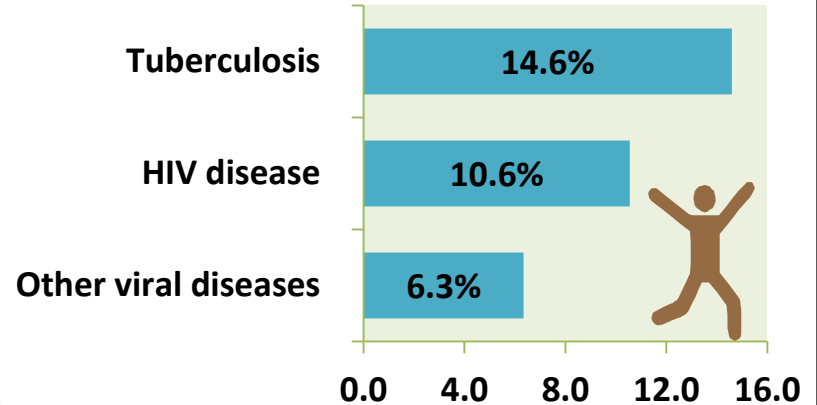


Three leading causes of death by age groups, 2014

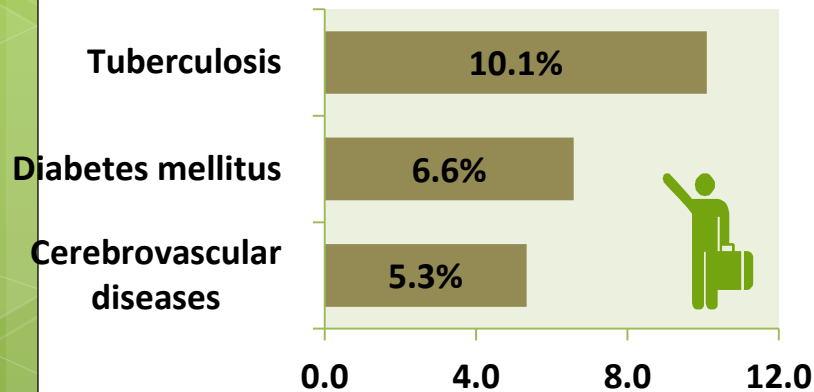
Age 1–14 (N: 14 854)



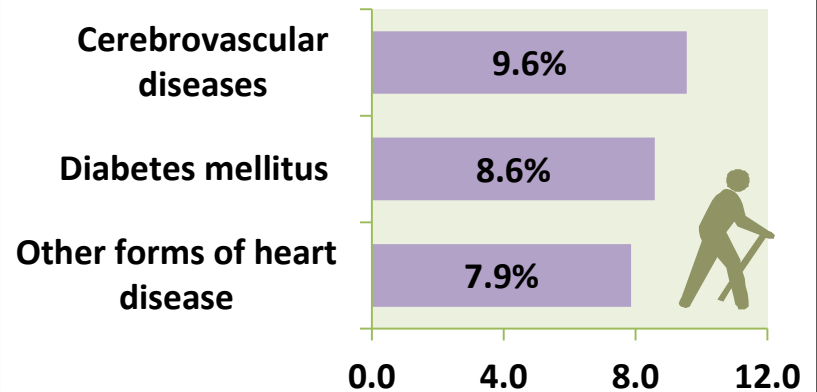
Age 15–44 (N: 133 673)



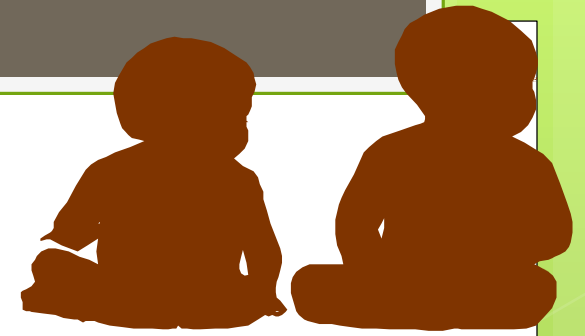
Age 45–64 (N: 127 374)



Age 65+ (N: 150 647)



Three leading underlying causes of death for infants & children



Age 0 (N: 25 643)

Respiratory and cardiovascular disorders specific to the perinatal period

14.5%

Intestinal infectious diseases

12.9%

Influenza and pneumonia

9.0%

0.0 8.0 16.0



Age 1–4 (N: 8 619)

Intestinal infectious diseases

17.2%

Influenza and pneumonia

9.1%

Malnutrition

8.6%

0.0 10.0 20.0



Under-5 years (N: 34 262)

Intestinal infectious diseases

14.0%

Respiratory and cardiovascular disorders specific to the perinatal period

10.8%

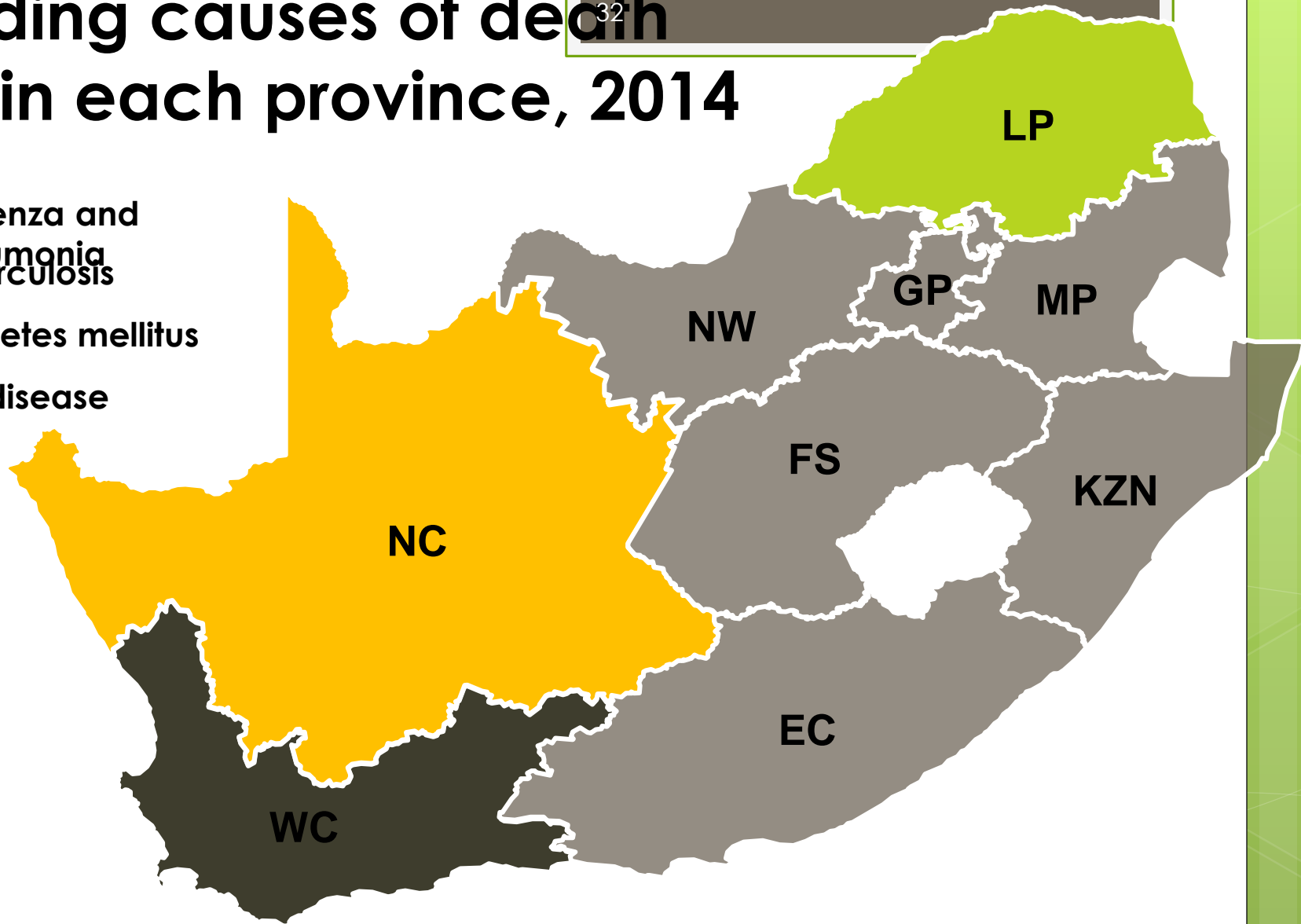
Influenza and pneumonia

9.0%

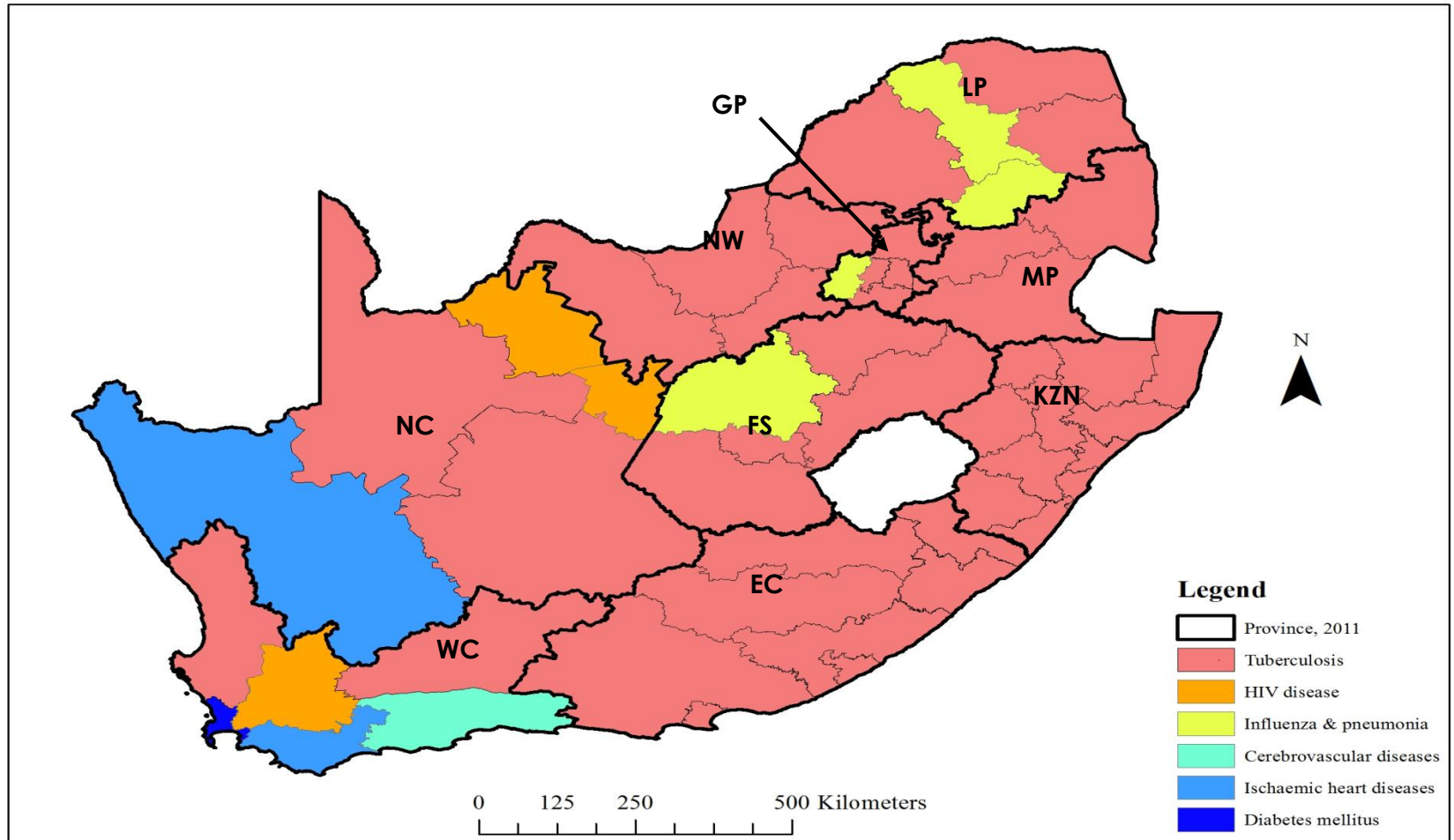
0.0 8.0 16.0

Leading causes of death within each province, 2014

- Influenza and pneumonia
- Diabetes mellitus
- HIV disease



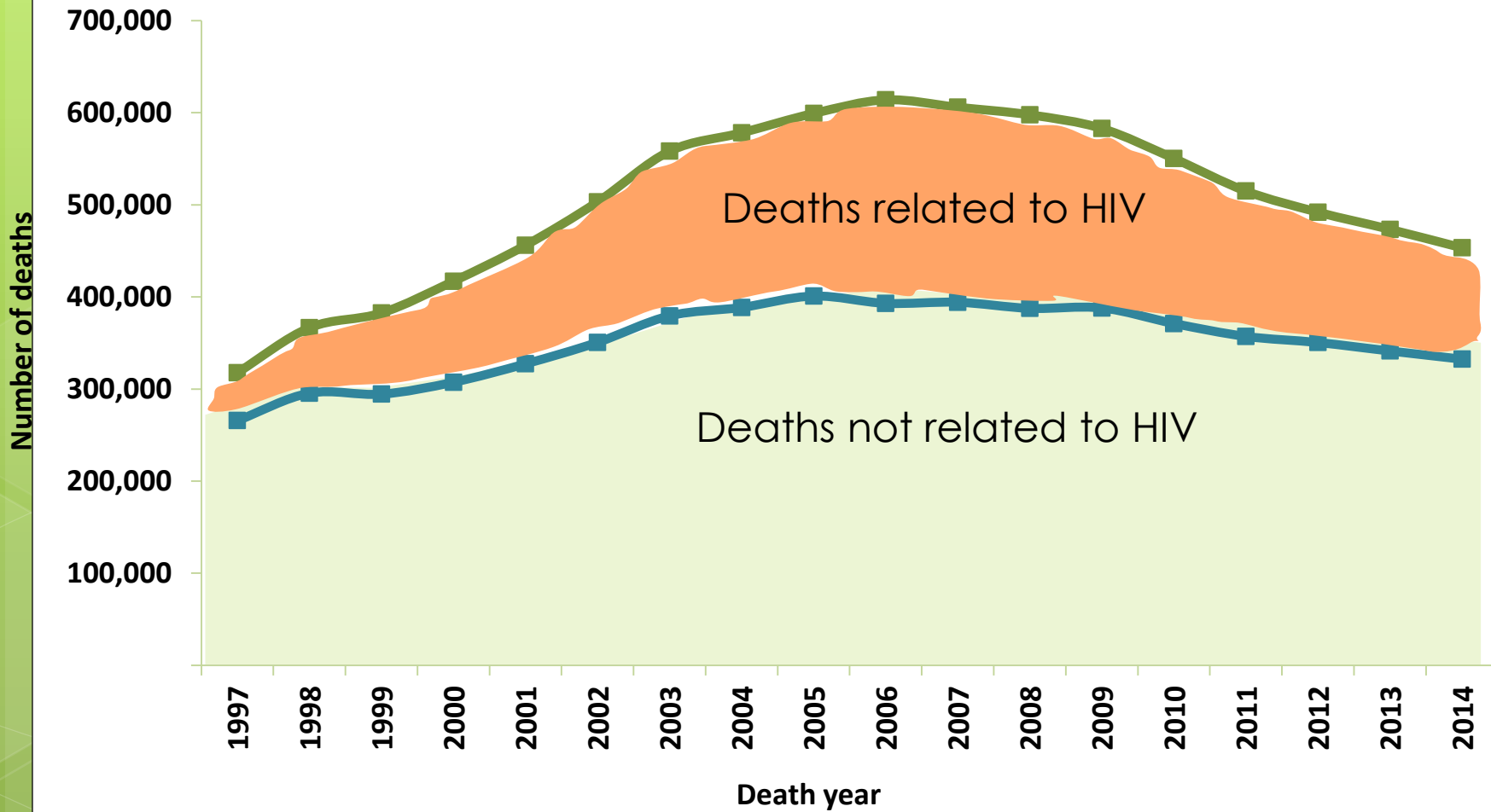
Leading causes of death within each district municipality, 2014





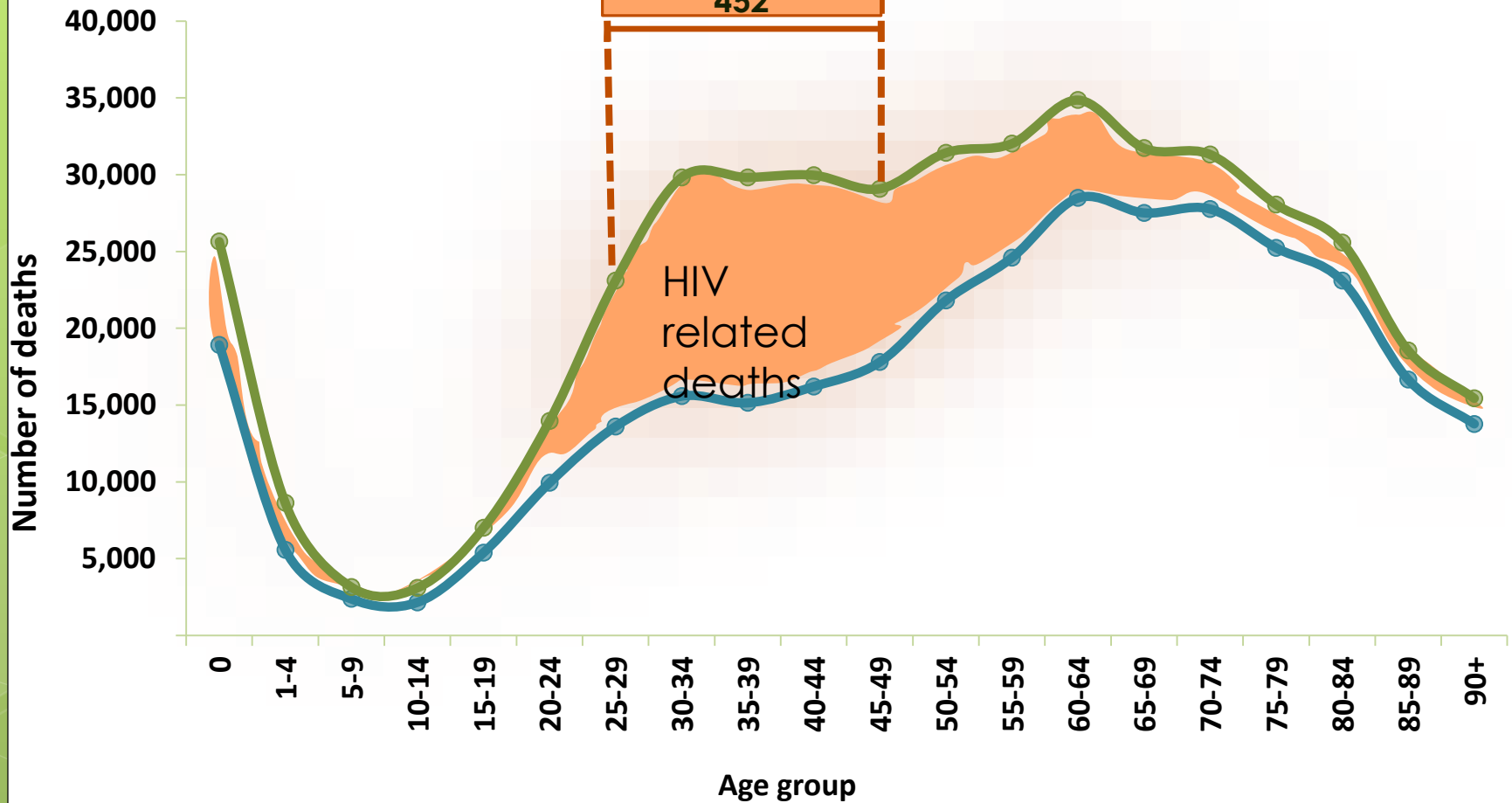
HIV deaths

Profile deaths, 1997-2014: HIV related vs non-HIV related

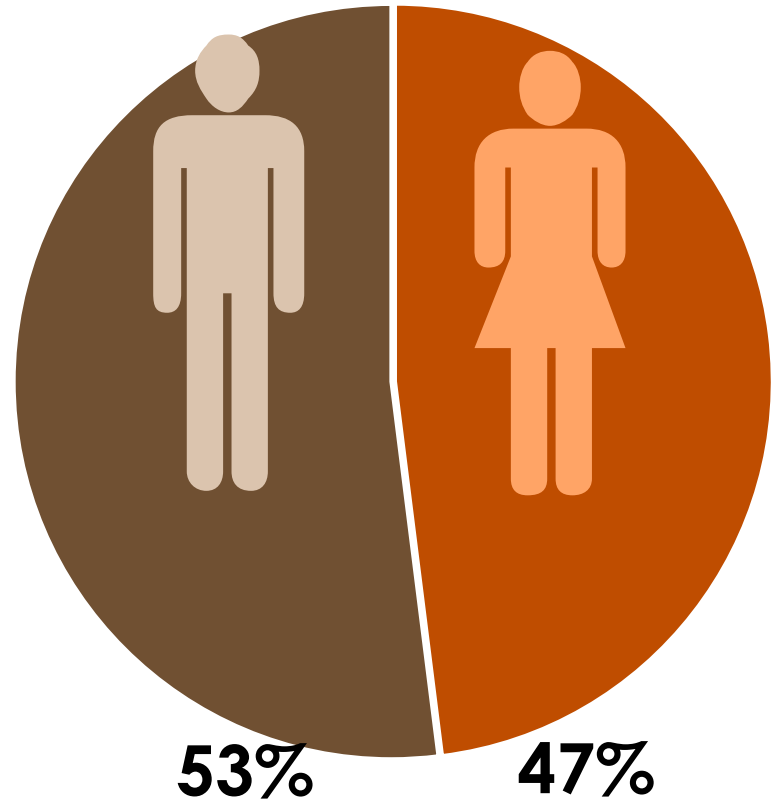


HIV related vs non-HIV related by age in 2014

HIV related Deaths in 25-49 Age Group = 63 452



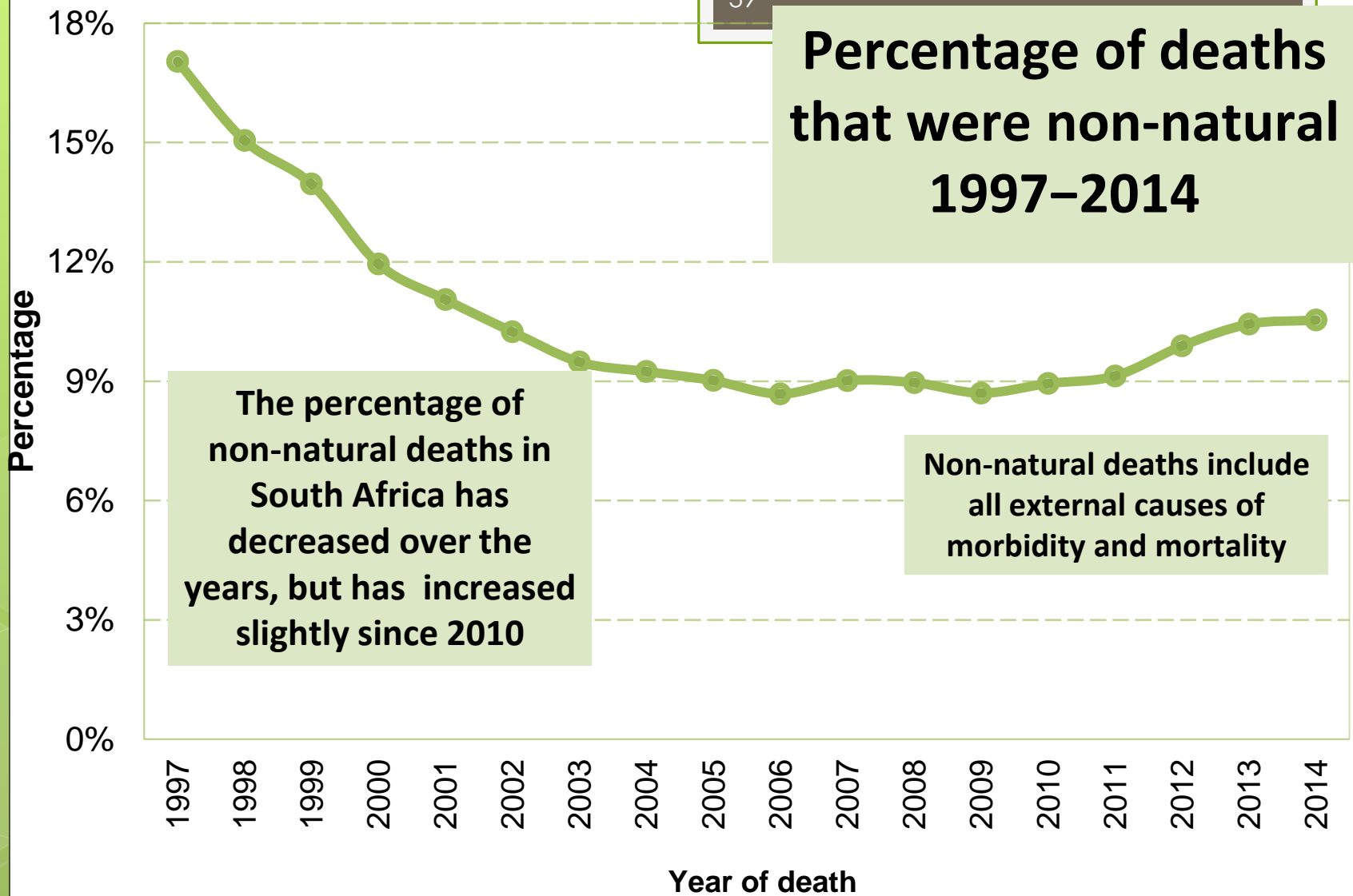
HIV related vs non-HIV related 25-49 age group in 2014



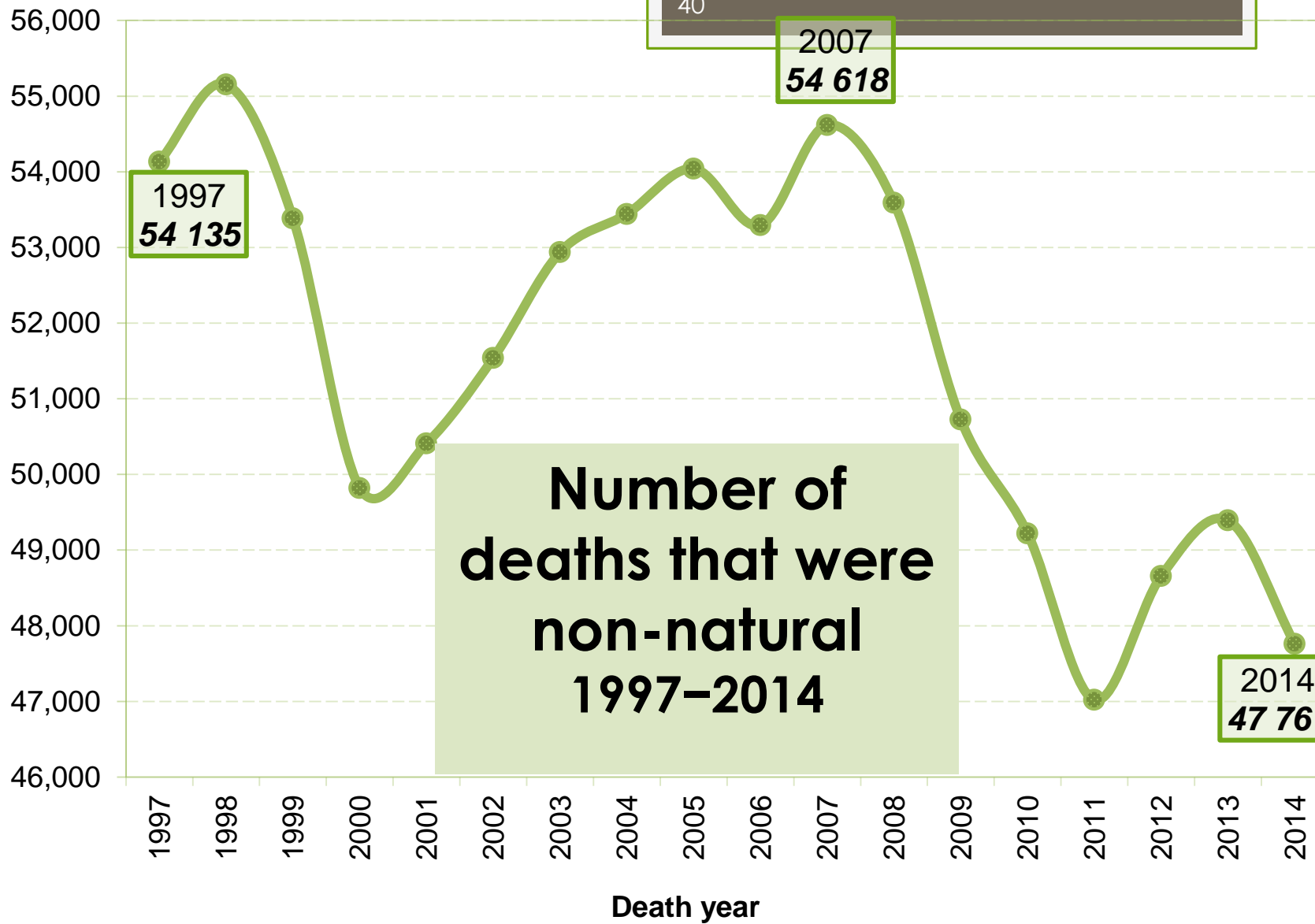


Non-natural causes of death

Percentage of deaths that were non-natural 1997–2014



Number of deaths



Other external causes of accidental injury

54.6%

Event of undetermined intent

17.1%

ill-defined causes

Transport accidents

12.4%

Assault

11.1%

Complications of medical and surgical care

3.5%

Intentional self-harm

1.2%

Percentage of non-natural deaths by broad groups 2014

0.0 10.0 20.0 30.0 40.0 50.0 60.0

41

42

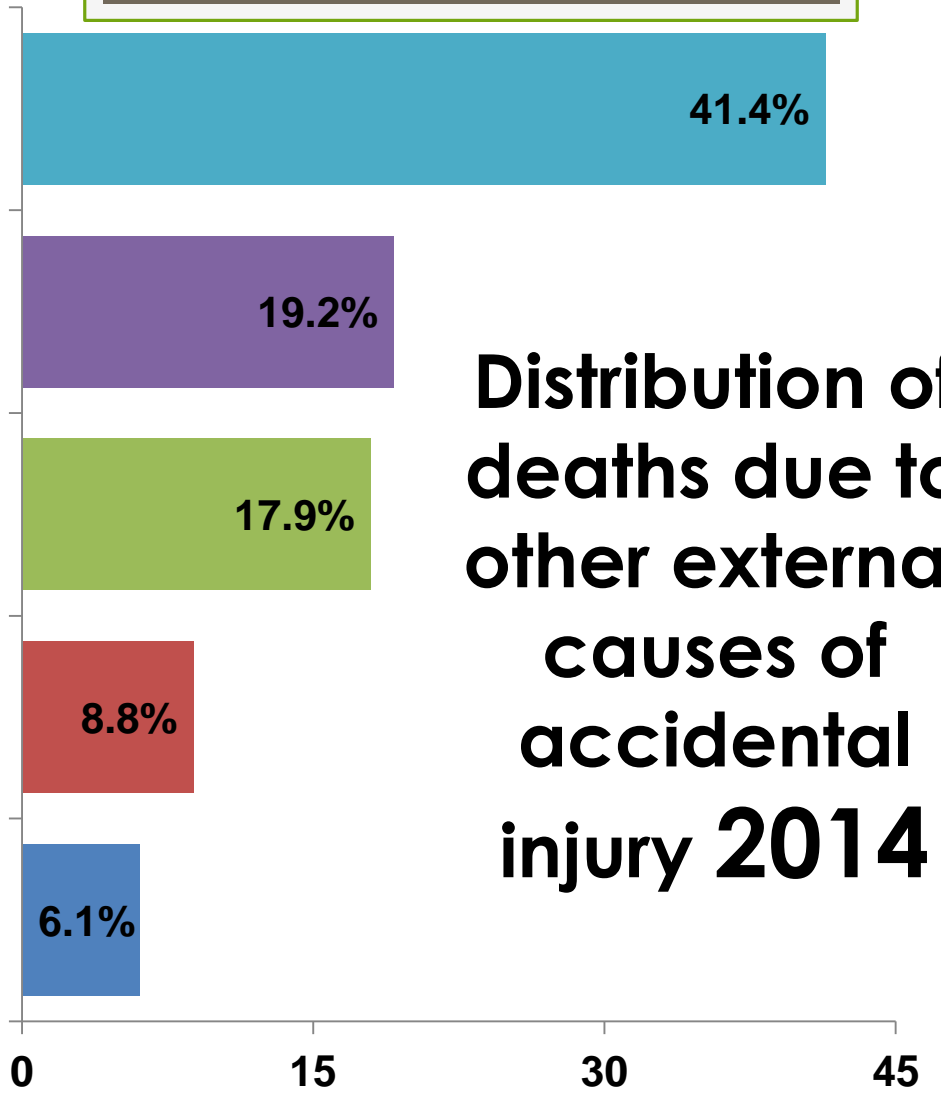
Accidental exposure to other and unspecified factors

Exposure to inanimate mechanical forces

Other accidental threats to breathing

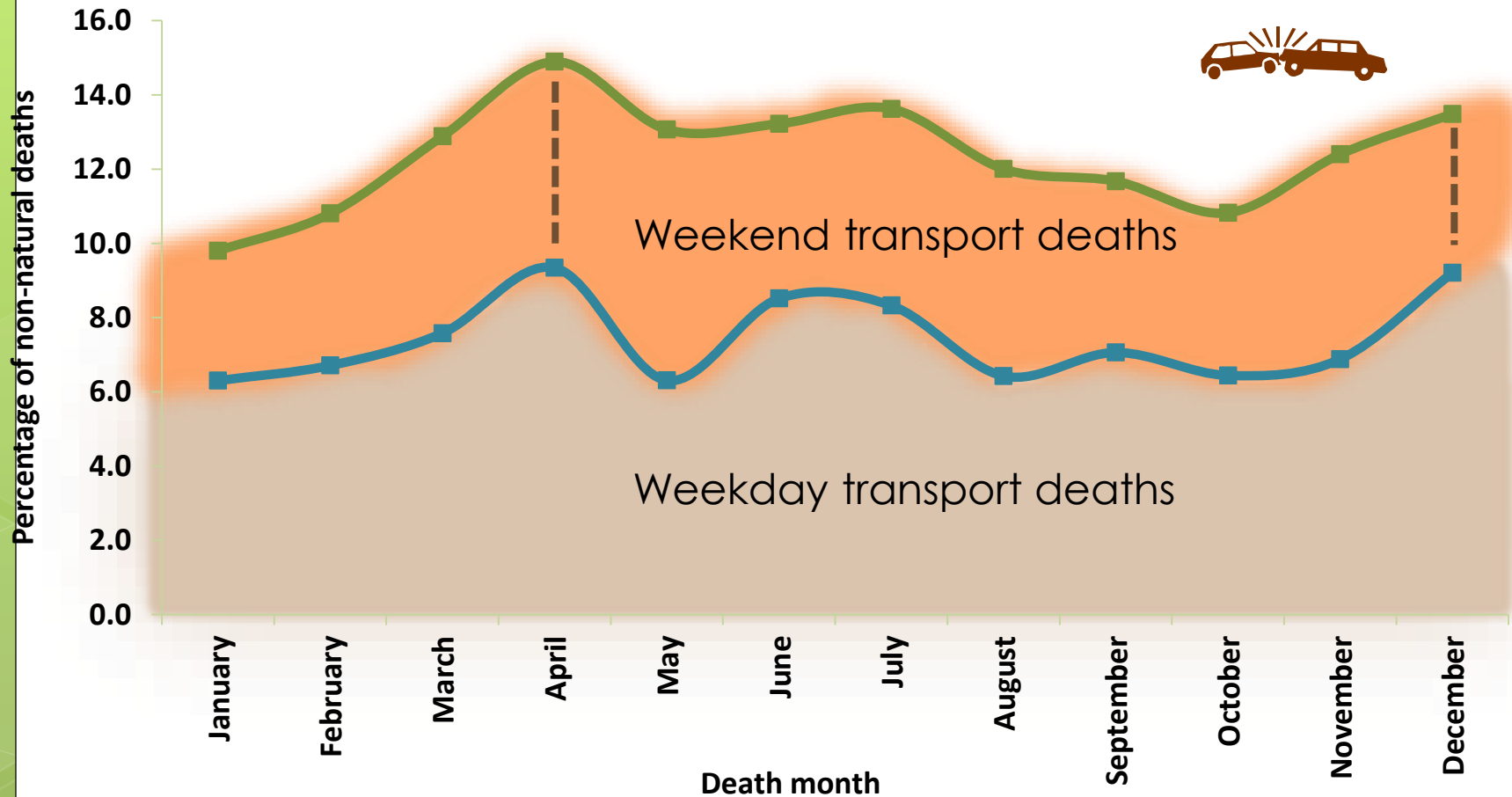
Exposure to smoke, fire and flames

Accidental drowning and submersion



Distribution of deaths due to other external causes of accidental injury 2014

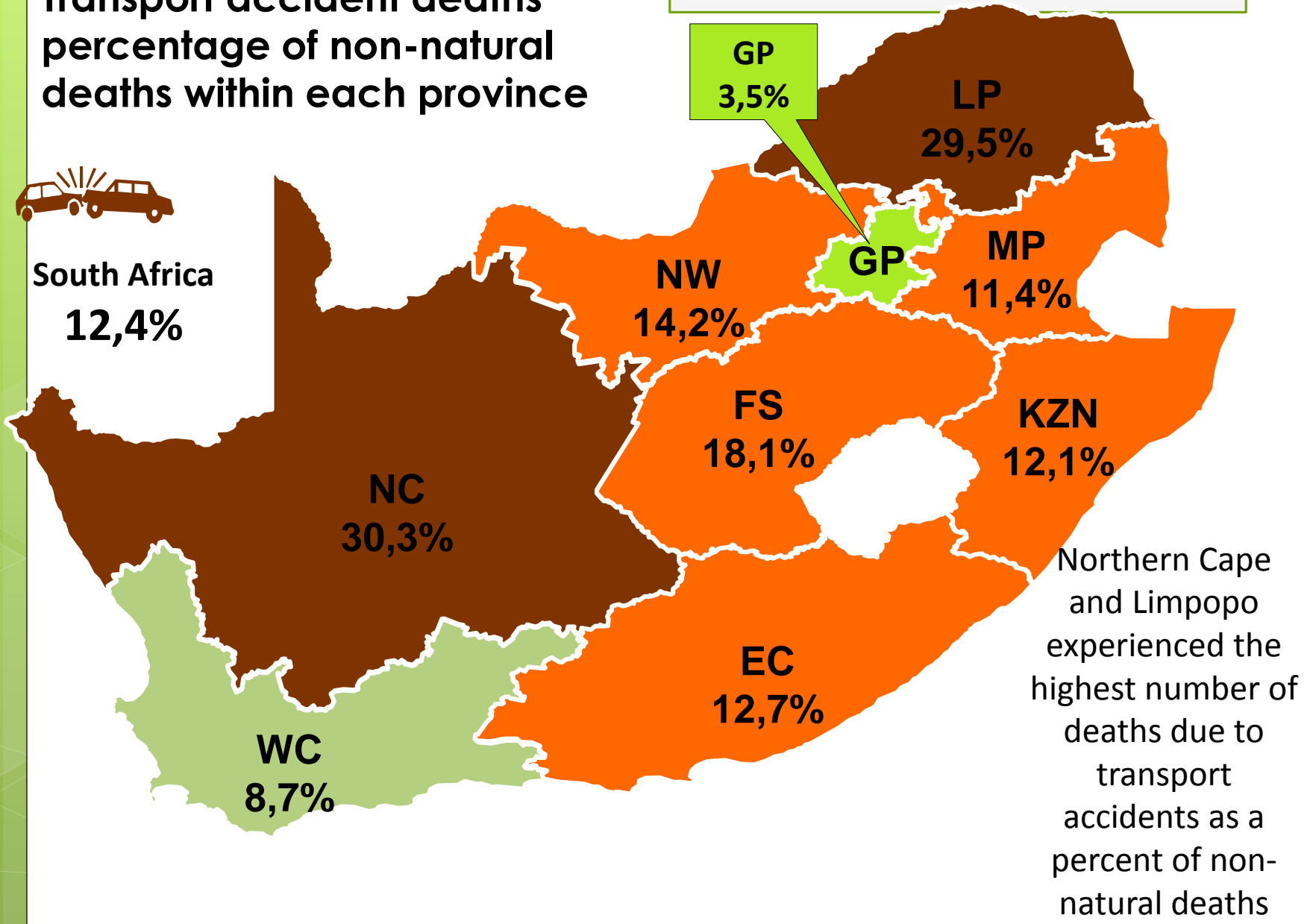
Percentage of transport accidents by death month: Weekday vs Weekend deaths



Transport accident deaths percentage of non-natural deaths within each province



South Africa
12,4%



Northern Cape and Limpopo experienced the highest number of deaths due to transport accidents as a percent of non-natural deaths

Transport accident deaths percentage of non-natural deaths by District Municipality

| | District Municipality | Province | Percentage of non-natural deaths in DM |
|----|-----------------------|---------------|--|
| 1 | Central Karoo | Western Cape | 51,5% |
| 2 | John Taolo Gaetsewe | Northern Cape | 44,3% |
| 3 | Fezile Dabi | Free State | 37,2% |
| 4 | Waterberg | Limpopo | 36,0% |
| 5 | Greater Sekhukhune | Limpopo | 33,0% |
| 6 | Capricorn | Limpopo | 31,7% |
| 7 | Siyanda | Northern Cape | 29,9% |
| 8 | Ngaka Modiri Molema | North West | 29,9% |
| 9 | Namakwa | Northern Cape | 28,9% |
| 10 | Vhembe | Limpopo | 27,7% |

The Central Karoo District Municipality recorded the highest percentage of deaths due to transport accidents in South Africa

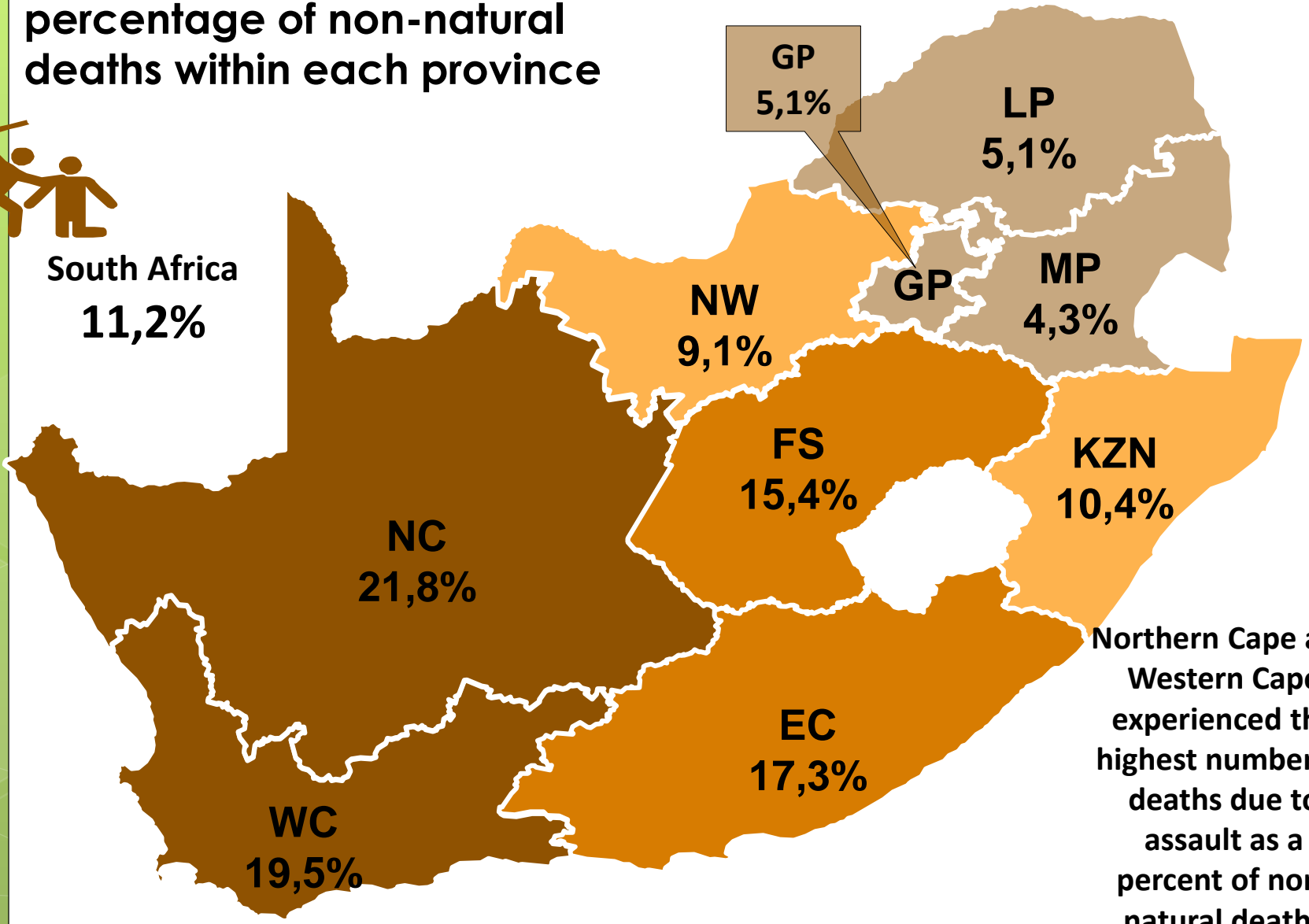
Ranking of Metro Municipalities

- 32. Buffalo City
- 36. Nelson MM
- 39. Mangaung Municipality
- 41. City of Cape Town
- 42. City of Tshwane
- 45. City of eThekweni
- 46. City of Johannesburg
- 50. Ekurhuleni MM

Assault related deaths percentage of non-natural deaths within each province



South Africa
11,2%



Northern Cape and Western Cape experienced the highest number of deaths due to assault as a percent of non-natural deaths

Assault related deaths percentage of non-natural deaths by District Municipality

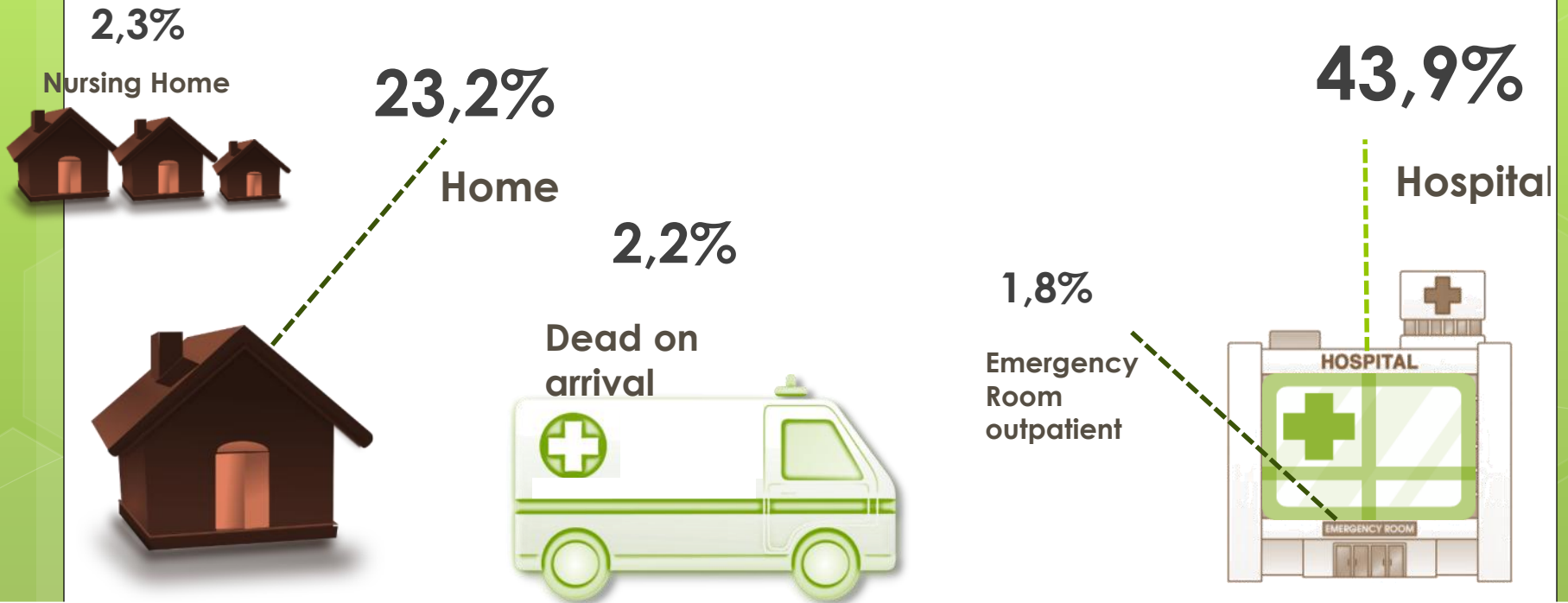
| | District Municipality | Province | Percentage of non-natural deaths within province |
|----|-----------------------|---------------|--|
| 1 | Overberg | Western Cape | 29,8% |
| 2 | Pixley ka Seme | Northern Cape | 27,0% |
| 3 | Lejweleputswa | Free State | 24,0% |
| 4 | Alfred Nzo | Eastern Cape | 23,3% |
| 5 | Joe Gqabi | Eastern Cape | 23,1% |
| 6 | Siyanda | Northern Cape | 22,8% |
| 7 | Chris Hani | Eastern Cape | 22,2% |
| 8 | John Taolo Gaetsewe | Northern Cape | 22,2% |
| 9 | City of Cape Town | Western Cape | 21,3% |
| 10 | West Coast | Western Cape | 19,0% |

The Overberg District Municipality recorded the highest percentage of deaths due to assault in South Africa

Ranking of Metro Municipalities

- 9. City of Cape Town
- 12. Buffalo City
- 17. Mangaung Municipality
- 29. Nelson MM
- 41. Ekurhuleni MM
- 46. City of eThekweni
- 47. City of Johannesburg
- 50. City of Tshwane

Distribution of deaths by place of death occurrence



*Other, Unknown or Unspecified 23.4%

Implications for National Development Priorities



By 2030, South Africa should have:

- **Raised life expectancy to at least 70 years**
- **Reduced maternal, infant and child mortality**
- **Significantly reduced prevalence of non-communicable diseases**
- **Reduced injuries, accidents and violence by 50% from 2010 levels**
- **Progressively reduced deaths from tuberculosis**

Life Expectancy at birth, 2014

70 years

----- NDP Targeted Life
Expectancy in
2030

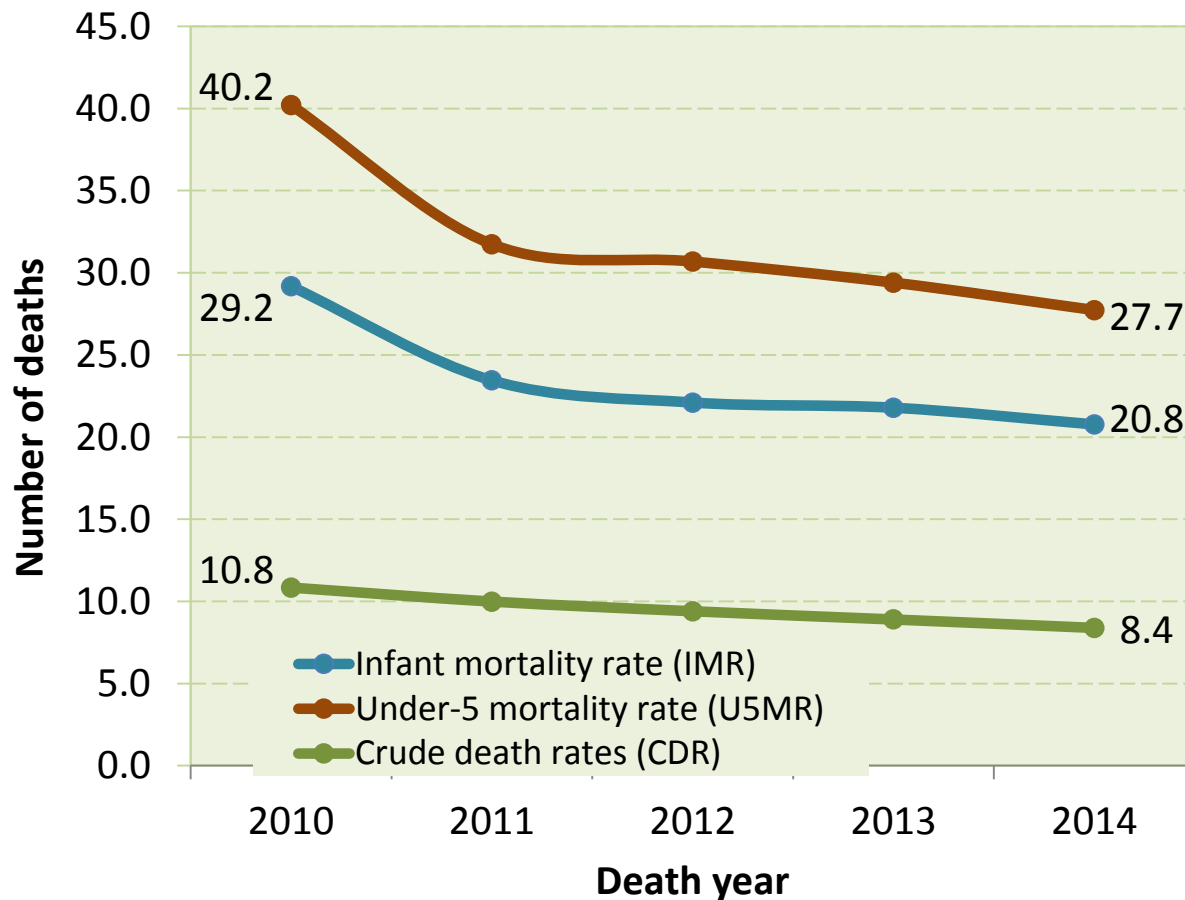
Gap in reaching 2030
NDP target:
6.2 years

Females: 66,8 years
Males : 60,7 years

63,8 years ----- Total 2014 Life
Expectancy
from registered
deaths

Data source: civil registration deaths and mid-year population estimates

Mortality rates, 2010–2014



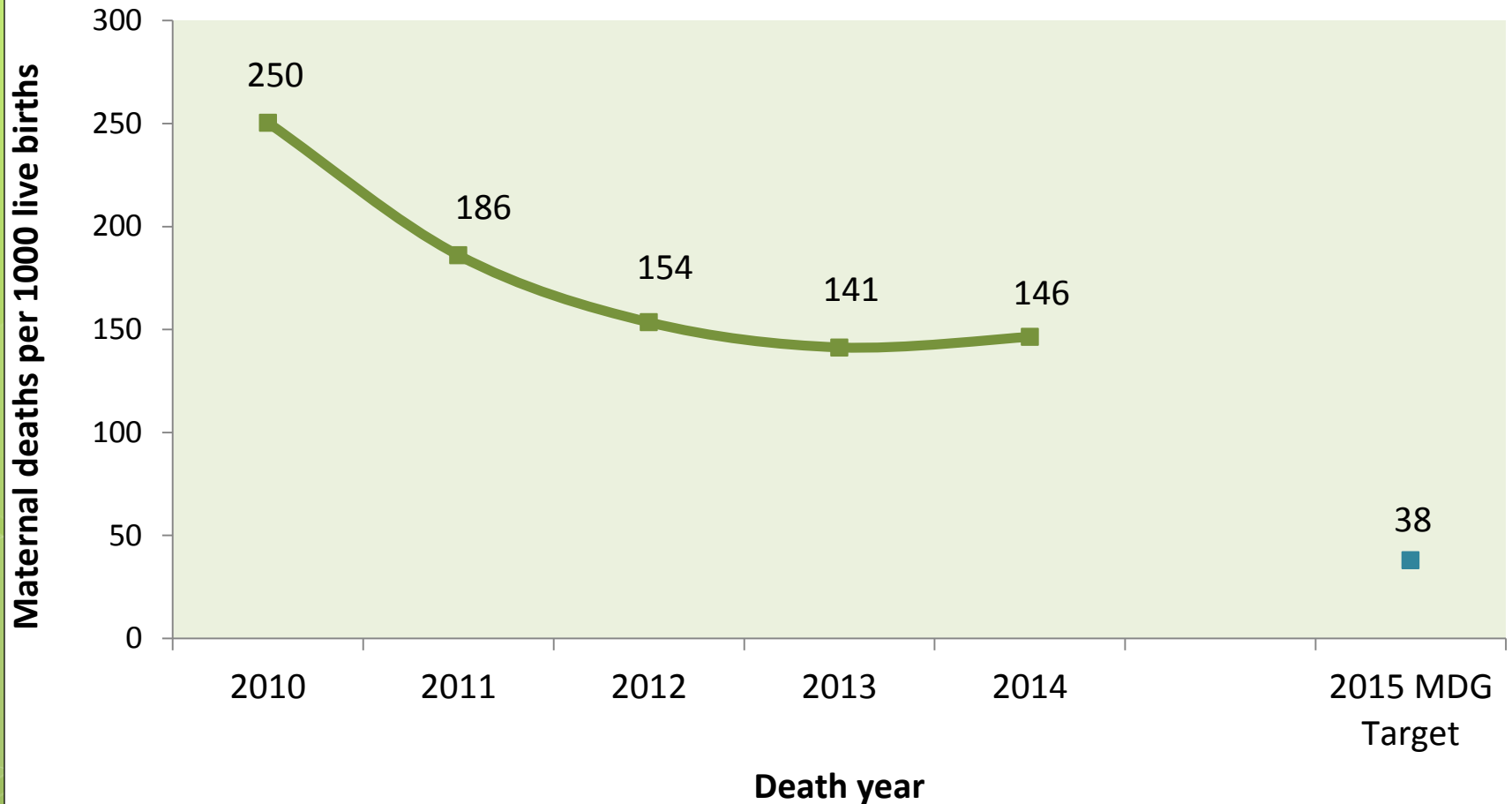
2015 MDG target:

- 18 infant deaths per 1000 live births
- 20 under-5 deaths per 1000 live births

The CDR declined from 10,8 deaths in 2010 to 8,4 deaths per 1 000 people in 2014

Data source: civil registration deaths and mid-year population estimates

Maternal mortality ratios, 2010–2014



Data source: civil registration deaths and mid-year population estimates

National Development plan target by 2030

53

Deaths 2014 show:

Increase life expectancy to at least 70 years

- Progressively reduced deaths from tuberculosis, HIV disease and other communicable diseases
- Reduced injuries, accidents and violence by 50% from 2010 levels

453 360 deaths in 2014 – peak age group 60–64 years

Communicable diseases:

- TB number one leading cause of death but decreasing proportions with influenza dropping down to 4th leading from the 2nd position in 2014
- HIV leading cause in Northern Cape & part of top three causes only for black Africans. HIV mostly amongst ages 25–49 years.

47 761 non-natural deaths in 2014 – down by 0,3% from 2010 levels.

Deaths 2014 show cont'd:

National Development plan target or actions by 2030

- Significantly reduced prevalence of non-communicable diseases

- Reduced maternal, infant and child mortality

Non-communicable diseases (NCDs)
 – Increasing percentages since 2010 account for **52,7%** deaths in 2014

- In 2014, top three causes for whites and Indian/Asians were NCDs

Mortality rates:

- **20,8** infant deaths per 1000 live births (Respiratory disorders [14,5%] & intestinal infectious diseases [12,9%])

- **27,7** under-5 deaths per 1000 live births (Intestinal infectious diseases [14,0%] & Respiratory disorders [10,8%])

- **146** maternal deaths per 100 000 live births

Summary

- The overall number of deaths in South Africa continues to decline since 2007.
- The age and sex profile of deaths shows proportion of deaths shifting from young adults to older age groups, particularly among females.
- The profile of the global burden of disease shows that on average South Africans are dying of non-communicable diseases.
- Leading causes show that:
 - Tuberculosis was the **1st** leading cause in 2013 and 2014
 - Influenza and pneumonia dropped from the **2nd** position in 2013 to **4th** in 2014
 - Diabetes was **2nd** among females and **4th** amongst males
 - HIV disease was **3rd** among males and **6th** amongst females
 - HIV disease was the **1st** leading in Northern Cape

56 Concluding remarks



- The data allows us to better understand mortality and causes of death in South Africa and the rest of the provinces
- Quality of information on mortality and causes of death collected can be improved through:
 - Accurate and full completion of all fields on the death notification form
 - Correct and detailed information on causes of death
 - **Mortality and causes of death 2015 release scheduled for 28 February 2017**

REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HOME AFFAIRS
BL-1663

NOTIFICATION / REGISTER OF DEATH / STILL BIRTH

In terms of the Births and Deaths Registration Act, 1992 (Act No. 51 of 1992)

Serial No. AD 1857265

Particulars of deceased individual / stillborn child

Mortality and causes of death
from death notification, South Africa

The Mortality report, 2014
is also available to
download from the Stats
SA app



Available on the
App Store

National Department of
Health, MRC and Statistics
South Africa have finalized
data collection for SADHS
2016 and results will be
published soon.

Mortality and causes of
death report for 2015
will be published by the
28 FEBRUARY 2017

Thank you