# CAUSE OF DEATH PROFILES FOR DISTRICT HEALTH PLANNING –

# EXPERIENCES FROM SOUTH AFRICA

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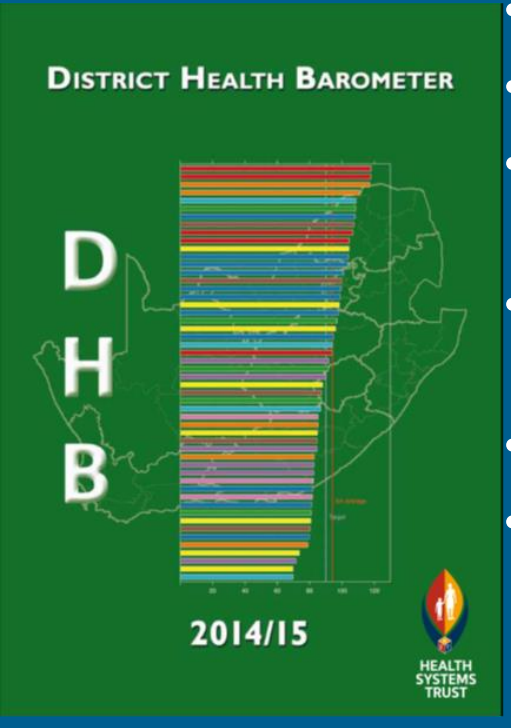
# BACKGROUND

- CR&VS well established in South Africa but limited use of district level information

- Data quality issues with causes of death - including high proportion of ill-defined causes, misclassification of HIV related deaths and poor specification of external causes of injury deaths

# DISTRICT HEALTH BAROMETER




- DHB aims to facilitate bench-marking of the 52 districts
- Cause-of-death profiles recently added to DHB
- Unit record cause-of-death data with district codes obtained from Stats SA 2008-2013
- ICD codes aggregated to the SA National Burden of Disease (SA NBD) list of 140 conditions
- Basic data quality assessment undertaken
- Data adjustments – HIV pseudonyms added to HIV/AIDS, ill-defined signs and symptoms (ICD chapter XVII) and other ‘garbage codes’ redistributed proportionally, injuries codes aligned to profile prior to 2006 – to enhance profile

# QUALITY ASSESSMENT:
# TREND IN NUMBERS OF DEATHS BY AGE AND SEX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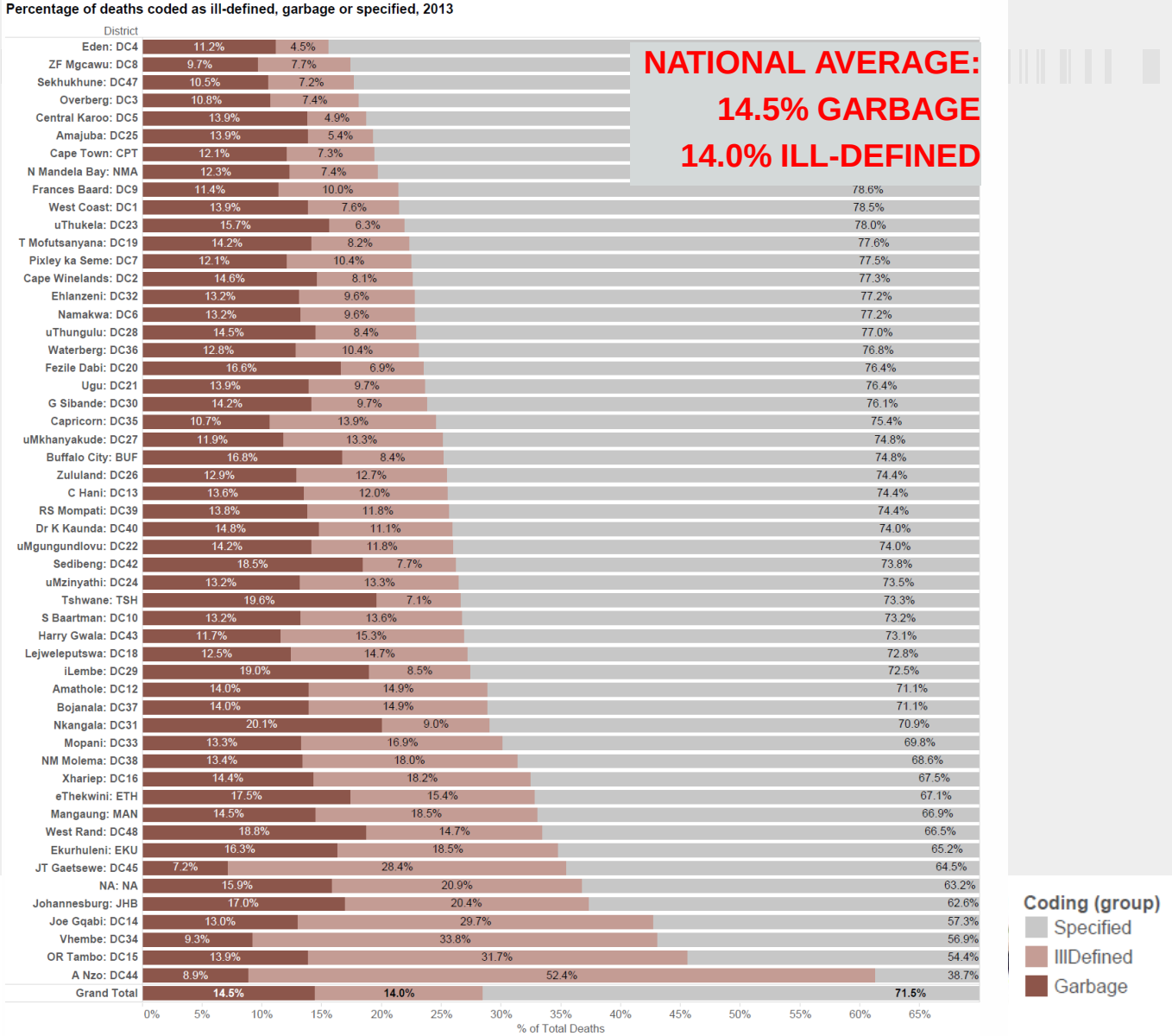
# PERCENTAGE OF DEATHS CODED AS ILL-DEFINED, GARBAGE OR SPECIFIED BY DISTRICT, 2013

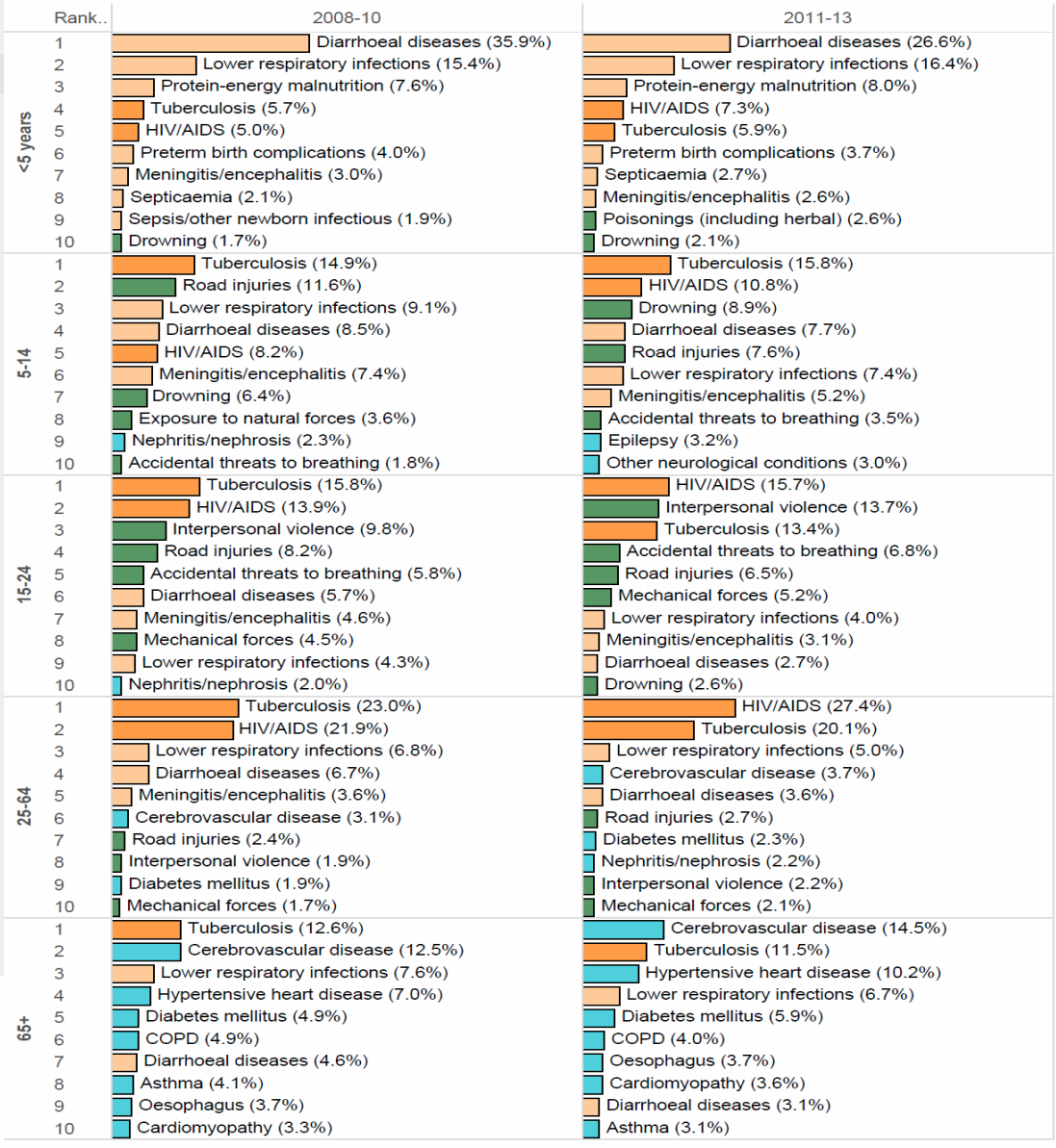


# DATA QUALITY ASSESSMENT

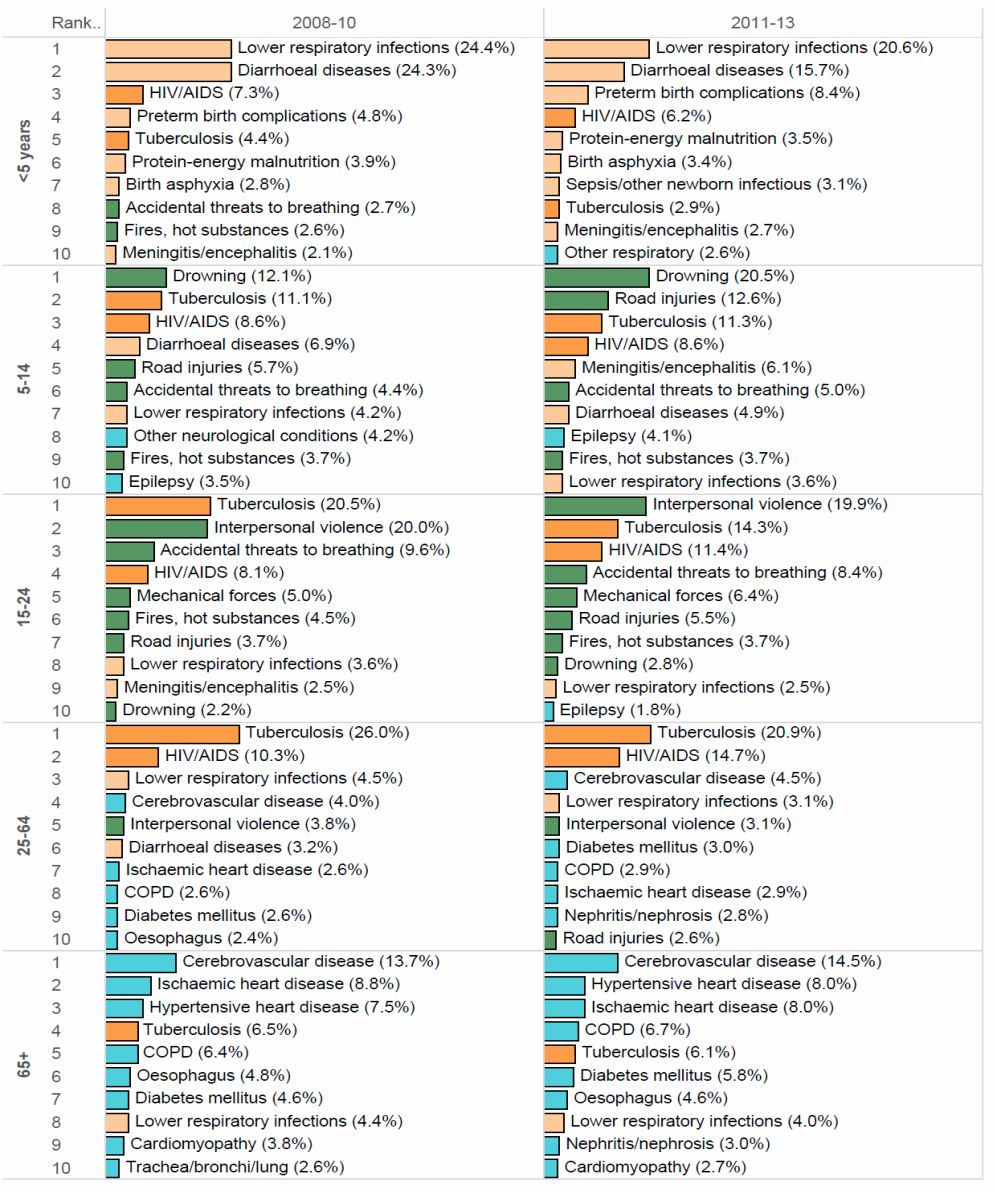
- Revealed certain fluctuations in the cause-of-death data series that need further investigation

- Cause-of-death quality issues (high proportion of ill-defined causes and garbage codes) vary across districts

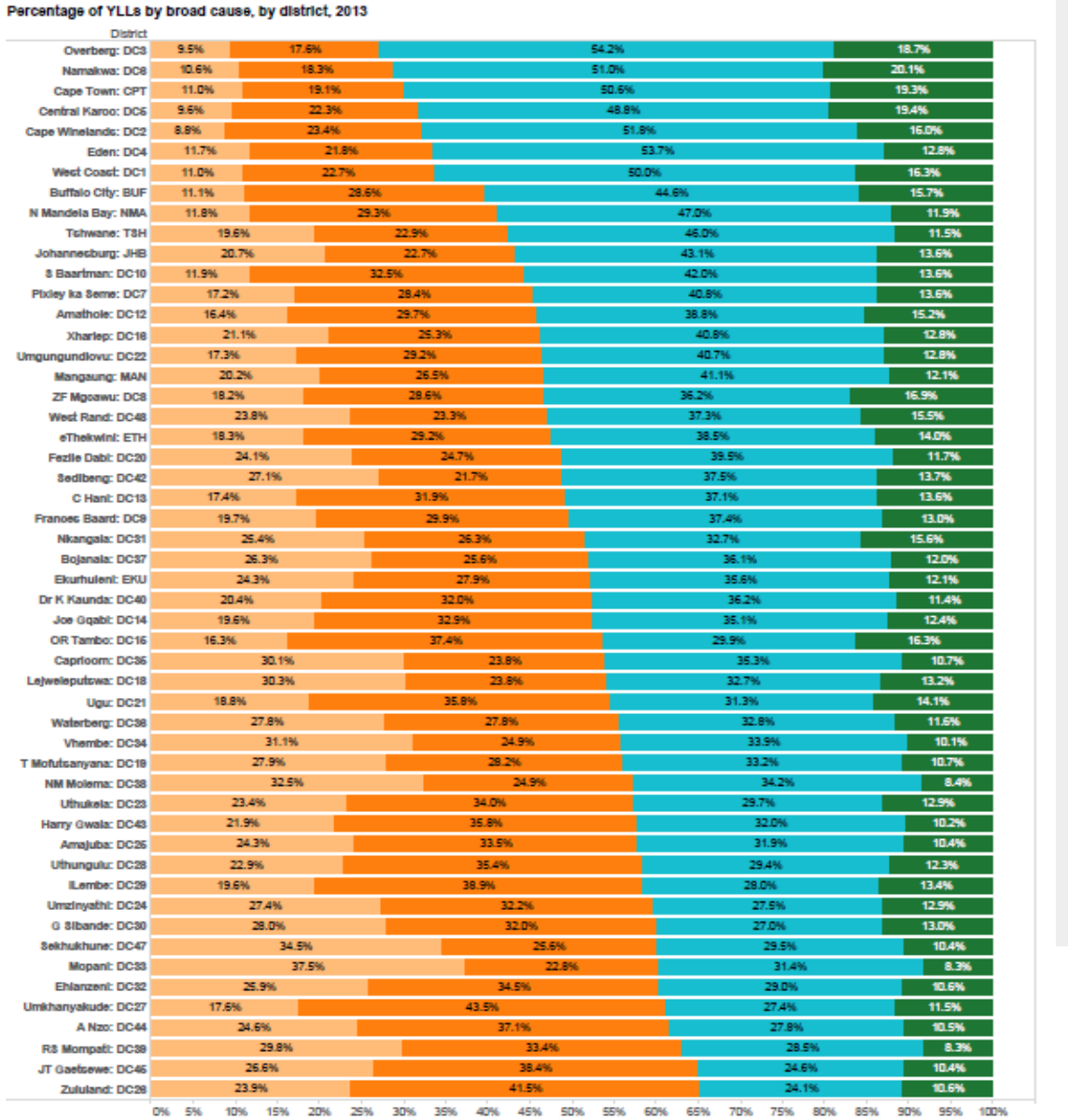
# ADJUSTED DEATHS BY AGE GROUP, OR TAMBO DISTRICT 2008-10 VS 2011-13



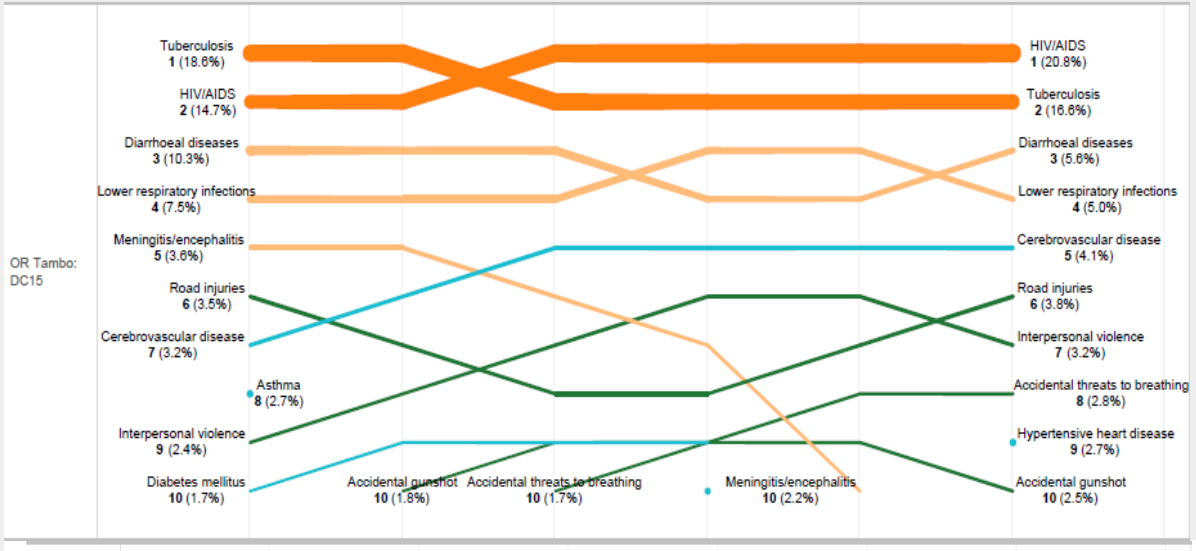
# ADJUSTED DEATHS BY AGE GROUP, BUFFALO CITY 2008-10 VS 2011-13

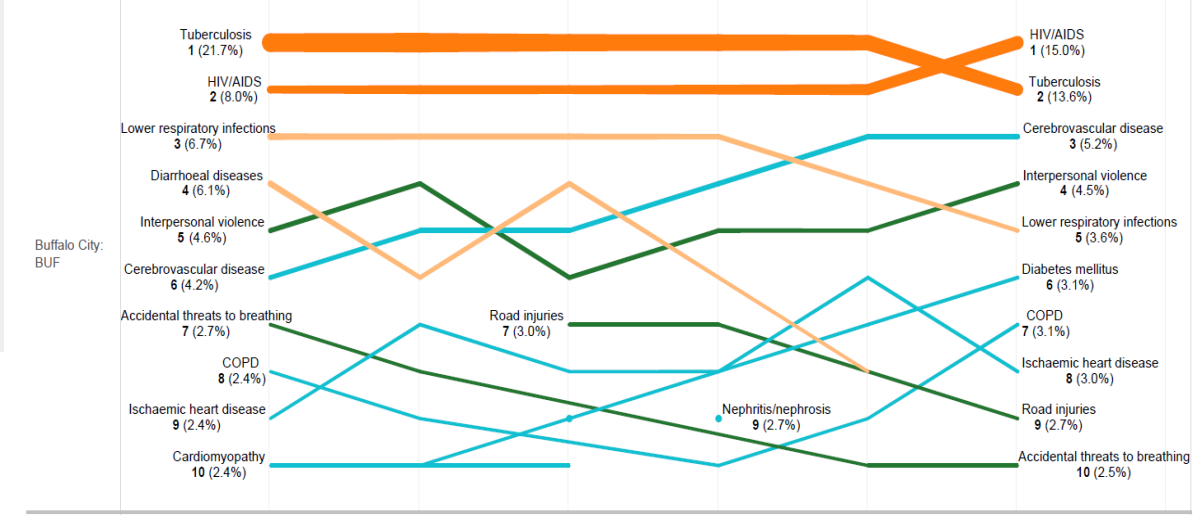


# PROPORTIONAL DISTRIBUTION OF PREMATURE MORTALITY BASED ON YEARS OF LIFE LOST (YLLS) BY BROAD CAUSE GROUP BY DISTRICT, 2013



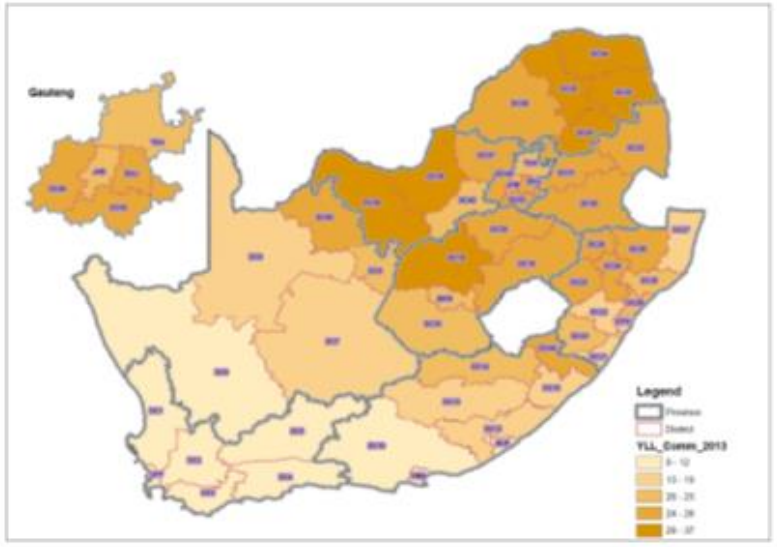
# TREND IN PREMATURE MORTALITY BASED ON YEARS OF LIFE LOST (YLLS) BY CAUSE, OR TAMBO AND BUFFALO CITY



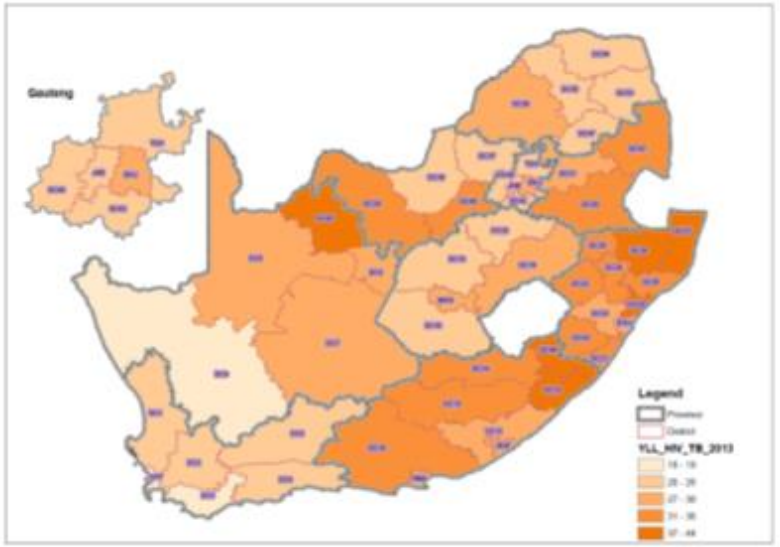



# PERCENTAGE OF YLLS BY BROAD CAUSE BY DISTRICT, 2013

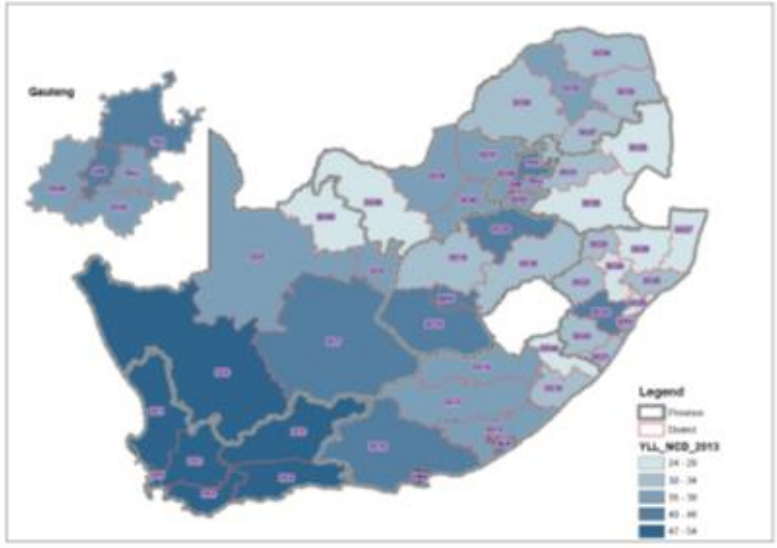
Comm_mat_peri_nut YLLs



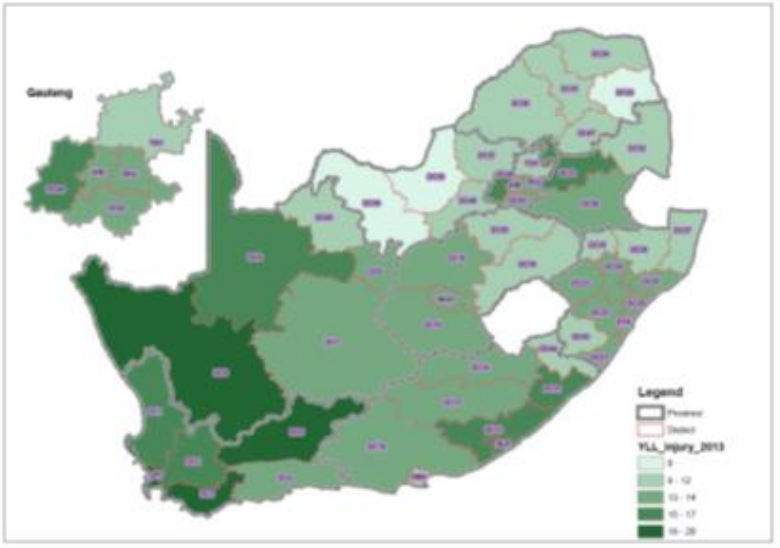

HIV and TB YLLs



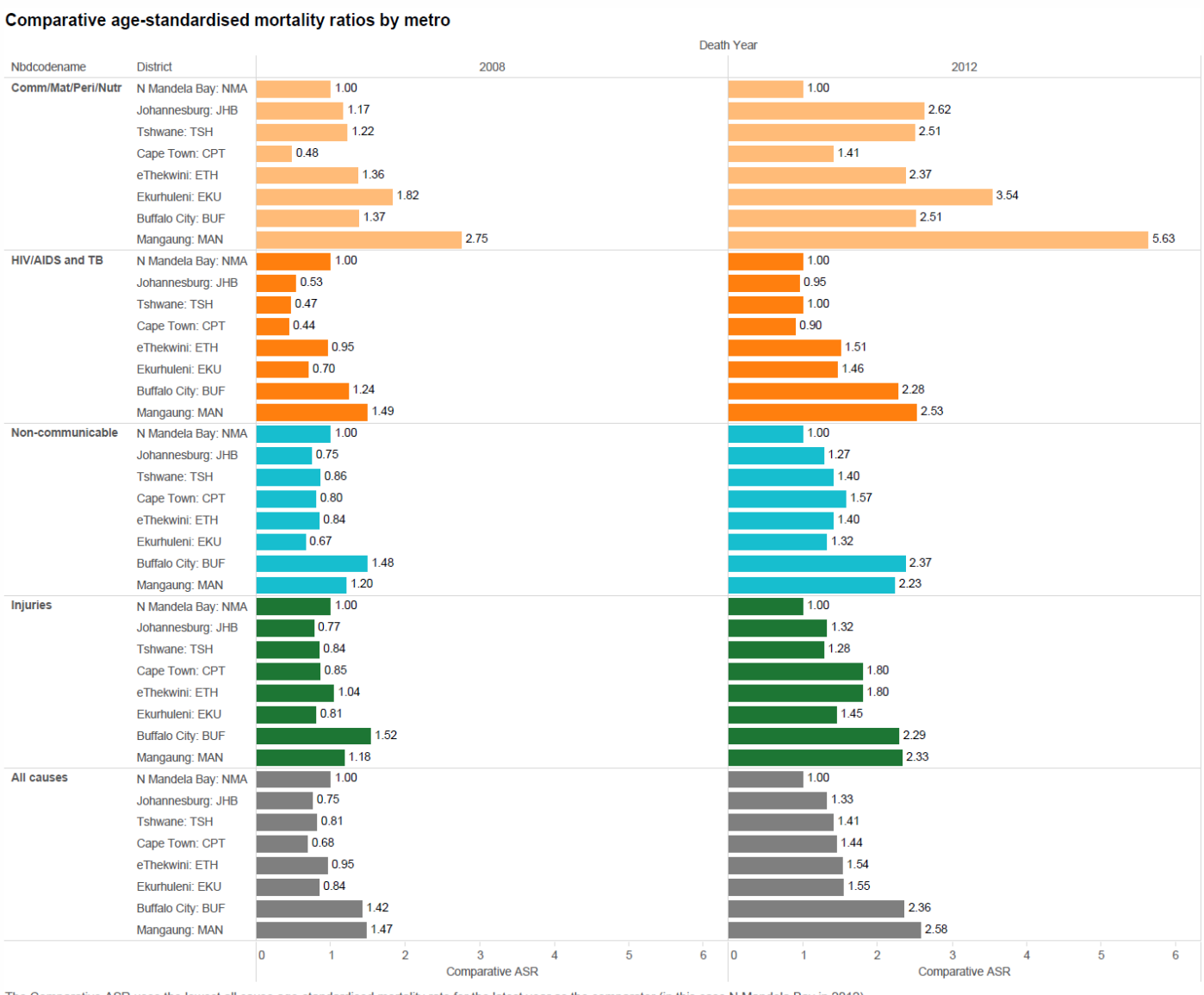

NCD YLLs




Injury YLLs



# EXPLORATORY COMPARISON OF AGE-STANDARDISED MORTALITY RATES FOR METRO AREAS




The Comparative ASR uses the lowest all cause age-standardised mortality rate for the latest year as the comparator (in this case N Mandela Bay in 2012).

# CHALLENGES

- Analysis has been restricted to profiles
  - Mortality rates cannot be calculated without district level completeness assessment
  - Robust population estimates are needed at district level
- Cause of death profiles are likely inaccurate
  - HIV under-represented, injuries may be wrong, cardiovascular causes may be inaccurate
- Published with warnings to interpret cautiously
  - Likely ignored

# CONCLUSION

- Important to make the available data useful and create a demand

- Considerable efforts are needed to improve cause of death statistics
  - improve medical certification
  - geographical coding of place of residence and place of death
  - quality of injury causes
  - stability in data system

- CRVS must be supported by demographic capacity
  - more demographic analysis of available data sources is needed to estimate completeness of registration at district level
  - and develop consistent population estimates