Report on Weekly Deaths
Week 33
1 January – 18 August 2020

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Data source

• Data on deaths on the National Population Register are obtained from the Department of Home Affairs on a weekly basis.
• Number of deaths are weighted upward to account for incomplete registration of deaths and those that do not have a South African ID number.
• Estimated number is compared with forecast numbers based on historical data from 2018 and 2019 to allow for the trend in the numbers and seasonal variations.
• Babies under 1-years are excluded from analysis.
The number of deaths has continued decreasing since week starting 15 July 2020

- Black line shows the weekly number of deaths in 2020
- Orange line shows the number predicted from historical data with bounds of uncertainty – a lower bound and upper bound
Estimated 39,087 excess natural deaths since 6 May

- Black line shows the weekly number of deaths
- Orange line shows the number predicted from historical data with bounds of uncertainty – a lower bound and upper bound
Excess natural deaths in persons 60+ years more than double the number 1-59 years
Deaths from unnatural causes track at lower prediction bound since beginning of July and did not have the typical end of month increase

- Historical data shows that weekly numbers of death from unnatural causes vary considerably depending on the time of month

**Vertical time lines:**
1. Week lockdown level 5 introduced
2. Week lockdown changed to level 4 with curfew
3. Week lockdown changed to level 3 including unbanning sale of alcohol
4. Week sale of alcohol re-banned and curfew re-introduced
5. Week lockdown changed to level 2 including unbanning sale of alcohol
Excess mortality

Used in epidemiology and public health to measure the mortality impact of a crisis when not all causes of death are known.

The World Health Organization defines ‘excess mortality’ as:

“Mortality above what would be expected based on the non-crisis mortality rate in the population of interest. Excess mortality is thus mortality that is attributable to the crisis conditions. It can be expressed as a rate (the difference between observed and non-crisis mortality rates), or as a total number of excess deaths.”
<table>
<thead>
<tr>
<th>Measure of Excess Deaths</th>
<th>Purpose of measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess All Cause Deaths</td>
<td>This provides an overall measure of the difference between the number of death that have occurred in the period compared with earlier years – but is a combination of several competing effects that cancel each other.</td>
</tr>
<tr>
<td>Excess Naturals vs adjusted base</td>
<td>This measure aims to identify the excess number of natural deaths that might have resulted from the direct and indirect effects of COVID-19, by taking into account that lockdown had reduced the number of deaths from natural causes.</td>
</tr>
</tbody>
</table>
What does this week’s report show?

• The weekly number of deaths of persons 1+ years of age from all causes has continued to drop since the week starting 15 July 2020.

• Excess natural deaths increased to 39,087 (vs confirmed COVID-19 deaths of 12,264) and suggests
  – some COVID-19 deaths that occur in the community are not reported
  – there may be collateral impact of the COVID-19 epidemic.

• The rapid rise and then decline in excess deaths in many provinces in recent weeks is entirely consistent with an epidemic peak.
<table>
<thead>
<tr>
<th>Region</th>
<th>Excess deaths vs revised base</th>
<th>DoH confirmed deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>39,087</td>
<td>12,264</td>
</tr>
<tr>
<td><strong>Province</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>9,354</td>
<td>2,633</td>
</tr>
<tr>
<td>Free State</td>
<td>2,664</td>
<td>536</td>
</tr>
<tr>
<td>Gauteng</td>
<td>10,860</td>
<td>3,017</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>6,396</td>
<td>1,699</td>
</tr>
<tr>
<td>Limpopo</td>
<td>1,349</td>
<td>159</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>1,982</td>
<td>214</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>596</td>
<td>38</td>
</tr>
<tr>
<td>North West</td>
<td>1,546</td>
<td>100</td>
</tr>
<tr>
<td>Western Cape</td>
<td>4,933</td>
<td>3,646</td>
</tr>
</tbody>
</table>
What can be done to investigate the causes of death in recent weeks?

- Statistics South Africa and the Department of Home Affairs are encouraged to fast-track processing the death notification forms completed by doctors.
- National Department of Health and the National Institute for Communicable Diseases to work with the South African Medical Research Council to consolidate supplementary information using
  - Data linkage to consolidate health information about the deaths,
  - Conducting verbal autopsy interviews with next of kin.