Covid-19 Insights from SA

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Stats SA: MID - YEAR ESTIMATES 2020

Covid-19

Insights from SA

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Appreciation of the age structure of the country is essential as well as of epidemiology so that application of other countries to SA can be assessed.

First case on 6 March resulted in various projections being made.
Most of these were way off the mark because they didn’t take demography or epidemiology into account.
Dowd et al used the age structure of infections in China and applied it to SA, Brazil and Nigeria amongst others to show the impact of age structure.
It was initially thought those over 65 and with key comorbidities would be most vulnerable but data today shows that the peak of infections is between 30 and 50 and deaths between 50 and 65 in SA.
It is unclear if in sub-Saharan Africa this is due to youthful age structure, poor CRVS systems or testing regimes.
Epidemiology of SA must also be taken into account whereby we have history of HIV and TB alongside other communicable diseases.
EC, GP and FS have followed the peak by the WC

*Confirmed incidence risk by Province per 100,000*

Figure 4. Weekly incidence risk of PCR-confirmed cases of COVID-19 by province and epidemiological week, South Africa, 3 March-8 August 2020 (n=559 281, 577 missing dates of specimen collection/province allocation)
Female cases between ages of 25 to 49 are the most likely to be recorded as infected

*Confirmed Cases by Age Group*
By age group, COVID-19 deaths were high amongst persons aged 60–69 (26,9%), followed by persons aged 50–59 (22,4%).

**COVID-19 deaths by Age Group**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–9</td>
<td>0,2</td>
<td>0,2</td>
<td>0,2</td>
</tr>
<tr>
<td>10–19</td>
<td>0,2</td>
<td>0,4</td>
<td>0,3</td>
</tr>
<tr>
<td>20–29</td>
<td>1,5</td>
<td>0,9</td>
<td>1,1</td>
</tr>
<tr>
<td>30–39</td>
<td>5,7</td>
<td>4,3</td>
<td>4,9</td>
</tr>
<tr>
<td>40–39</td>
<td>10,5</td>
<td>11,5</td>
<td>11,0</td>
</tr>
<tr>
<td>50–59</td>
<td>21,6</td>
<td>23,1</td>
<td>22,4</td>
</tr>
<tr>
<td>60–69</td>
<td>25,4</td>
<td>28,3</td>
<td>26,9</td>
</tr>
<tr>
<td>70–79</td>
<td>19,7</td>
<td>19,8</td>
<td>19,7</td>
</tr>
<tr>
<td>80+</td>
<td>15,1</td>
<td>11,5</td>
<td>13,2</td>
</tr>
<tr>
<td>Unknown</td>
<td>0,2</td>
<td>0,2</td>
<td>0,2</td>
</tr>
<tr>
<td>Total</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Deaths were higher in Western Cape (25,4%), followed by Gauteng (25,4%). The lowest percentage were reported in Northern Cape (1,2%).

**Percentage distribution of COVID-19 deaths by age and province**

- Western Cape: 25,9%
- Gauteng: 25,4%
- Eastern Cape: 19,3%
- KwaZulu-Natal: 15,6%
- Free State: 5,3%
- Mpumalanga: 3,1%
- Limpopo: 2,2%
- North West: 2,0%
- Northern Cape: 1,2%
Age 40-59 has the highest incidence of cases at around 1700 per 100,000,

*Cumulative Incidence Risk by Age*
Females have a highest incidence of cases at around 1100 per 100 000
Demography and epidemiology must go hand in hand and the overlaying impact of geography must not be overlooked due to different age structures and health risks in different areas.
**Children and youth amount to nearly 38M in SA**

Children aged 0-14 and young people aged 15-34 make up more than 60% of the population.

*Population age structure by single years, 2020*

- **Children 0-14**: 17.0M (28.6%)
- **Youth 15-34**: 20.7M (34.7%)
- **Adults 35-59**: 16.5M (27.6%)
- **Elderly 60+**: 5.4M (9.1%)

The median age in SA is 27.

Source: MYPE 2020
Youth 15 – 34 has increased by 4.2m between 2002 & 2020

Children age 0-14 and adults age 15-34 make up more than 60% of the population.

*Population growth by age groups over time, 2002–2020*

![Population growth by age groups over time, 2002–2020](image)

Source: MYPE 2020
Burden of care in SA has declined over time. Child and old age dependency ratios show a decrease since 2002.

Old Age and Child Dependency Ratio's 2002 - 2020

Child Dependency

2020
43.8 per 100

2002
51.8 per 100

Old Age Dependency

2020
6.2 per 100

2002
8.3 per 100

Child dependency is on the decline as the fertility rate declines and life expectancy rises.

Source: MYPE 2020
Approximately 51.1% (30.5 million) of the population is female.

South Africa’s population, mid-2020

Source: MYPE 2020
There is a surplus of females to males at older ages, as well as a significant youth bulge aged 25-39.
### Issues related Fertility, Age Structure and Migration

<table>
<thead>
<tr>
<th><strong>Fertility</strong></th>
<th><strong>Age Structure</strong></th>
<th><strong>Migration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Continues to drive population growth in SA and will continue to do so</td>
<td>NICD consortium of modellers predicts 50,000 deaths by end of October (May, 2020)</td>
<td>With lockdown and closing of international borders international and internal migration to a lesser extent has ground to a halt</td>
</tr>
<tr>
<td>Raging debate around children and the risk they are exposed to and that they represent</td>
<td>Equates to 10% of all annual deaths with 2/3 occurring to those over 60</td>
<td>Main repercussion is amongst payment of remittances which is expected to drop by 20%</td>
</tr>
<tr>
<td>Concerns exist over access to reproductive health services but consensus is that in tough economic times fertility will slow down slightly until health improves</td>
<td>Age structure may be impacted slightly at older ages but no evidence of de-population occurring</td>
<td>Key source of income = 3x Overseas Development Assistance prior to pandemic</td>
</tr>
<tr>
<td></td>
<td>Excess Deaths</td>
<td>Despite slowdown of migration hardening of anti-migrant attitudes due to resentment of foreigners at work or in public hospitals in tough social, economic and health environment</td>
</tr>
</tbody>
</table>
Stats SA has been able to release 3 waves of population based online surveys during the most intense phases of lockdown dealing with poverty, unemployment, migration, education and health status.

3 waves on economic online surveys assessing the impact on the economy.

Ongoing work being done on vulnerability index.
1 out of 4 respondents thought it was safe for the children to attend school

**Percentage distribution of respondents who think that it is not safe for their children to attend school**

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Safe to attend school</th>
<th>Not safe to attend school</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>One child</td>
<td>16,2</td>
<td>56,0</td>
<td>27,8</td>
</tr>
<tr>
<td>Two children</td>
<td>17,6</td>
<td>54,6</td>
<td>27,8</td>
</tr>
<tr>
<td>Three children</td>
<td>14,4</td>
<td>63,2</td>
<td>22,4</td>
</tr>
<tr>
<td>Four children</td>
<td>3,2</td>
<td>83,9</td>
<td>12,9</td>
</tr>
<tr>
<td>Five or more children</td>
<td>0,0</td>
<td>92,9</td>
<td>25,7</td>
</tr>
</tbody>
</table>

Total: 15,8
8 out of 10 respondents said attending school poses a risk to the children.

Percentage distribution of respondents by reasons given why it is not safe for children to attend school.

- **It poses a risk to them**: 17.2% No, 82.8% Yes
- **It poses a risk to others in the household**: 32.7% No, 67.3% Yes
- **It poses a risk to extended family like grandparents**: 63.8% No, 36.2% Yes
- **It poses a risk to teachers**: 63.5% No, 36.5% Yes
- **Other**: 92.2% No, 7.8% Yes

Translated to English:

8 out of 10 respondents said attending school poses a risk to the children.

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Examples of Vulnerability Dashboards

South African COVID Vulnerability Index (SA CVI)

KwaZulu-Natal Province
Select Municipality and placename

Where are the most vulnerable populations for COVID-19 transmission in the country?

The South African COVID Vulnerability Index (SA CVI) aims to statistically identify vulnerable populations that are more likely to be affected by the coronavirus pandemic. The index helps to highlight populations at risk by ranking localised risk factors that may contribute to the spread of COVID-19. These factors include age, employment, high population density, multi-generational households, increased age, and number of cases.

Using the drop down menu above, select the municipality and placename. Use your mouse to hover over the areas to determine smaller placename areas, settlement type, and the statistical values.

For more information on how the index was constructed, please refer to the technical report: www.statssa.gov.za
Ndzi hela Kwala