Behavioural and health impacts of the COVID-19 pandemic in South Africa

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1. Key findings

Since the lockdown period for South Africa started on 27 March 2020, more than half (60.1%) of respondents who participated in the online survey reported that they were very concerned or extremely concerned about the impact of COVID-19 on their own health. As far as the economy was concerned, 93.2% of respondents were very concerned or extremely concerned about the possible economic collapse of the country due to the COVID-19 epidemic.

The majority of respondents (98.1%) indicated that they had changed their behaviour by leaving their houses only to obtain essentials like food or medical supplies and services in the week of 13 to 26 April 2020.

2. Introduction

The COVID-19 pandemic has had a profound impact worldwide. The pandemic reached South Africa later than most of the world, but despite the delay, it still had negatively impacted South Africa. The country has been able to greatly contain the spread and impact through very harsh and decisive measures instituted by the President who very early on announced a total lockdown of the country. This lockdown has in itself brought along certain implications for all citizens in the country.

Statistics South Africa (Stats SA) is embarking on a series of three online surveys to measure the impact of the COVID-19 pandemic on households in the country. This publication will be reporting on the first round, which focused on health related aspects in terms of behaviour, knowledge and perceptions with regard to COVID-19. The second survey will investigate the impact of the COVID-19 pandemic on income and expenditure, whilst the third survey will report on the impact of the COVID-19 pandemic on education and time use of households.

The survey was an online survey, housed on the Stats SA website. Any person who wanted to participate could access and complete the survey.

3. Background

Table 1: Survey information

<table>
<thead>
<tr>
<th>Survey objective</th>
<th>To provide an early indication of the behavioural and health impacts of COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection criteria</td>
<td>Convenience sample</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>3 591</td>
</tr>
<tr>
<td>Reference period</td>
<td>13 – 26 April 2020 (In some questions, respondents were asked about their behaviour in the week prior to the completion of the survey).</td>
</tr>
<tr>
<td>Limitations</td>
<td>This survey used a non-probability sample and respondents who chose to respond to this survey are not representative of the entire South African population. The results can, therefore, not be generalised to the entire South African population.</td>
</tr>
</tbody>
</table>

Table 2: Percentage sample distribution by age group and gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>18–34</th>
<th>35–44</th>
<th>45–54</th>
<th>55–64</th>
<th>64–74</th>
<th>75+</th>
<th>Total</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>21.9</td>
<td>34.3</td>
<td>25.4</td>
<td>13.4</td>
<td>3.9</td>
<td>1.1</td>
<td>100.0</td>
<td>1 529</td>
</tr>
<tr>
<td>Female</td>
<td>27.7</td>
<td>35.3</td>
<td>23.6</td>
<td>10.3</td>
<td>2.9</td>
<td>0.3</td>
<td>100.0</td>
<td>2 049</td>
</tr>
<tr>
<td>Other</td>
<td>23.1</td>
<td>23.1</td>
<td>30.8</td>
<td>7.7</td>
<td>7.7</td>
<td>7.7</td>
<td>100.0</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population group</th>
<th>18–34</th>
<th>35–44</th>
<th>45–54</th>
<th>55–64</th>
<th>64–74</th>
<th>75+</th>
<th>Total</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black African</td>
<td>32.5</td>
<td>42.4</td>
<td>20.5</td>
<td>4.2</td>
<td>0.4</td>
<td>0.0</td>
<td>100.0</td>
<td>1 296</td>
</tr>
<tr>
<td>Coloured</td>
<td>29.4</td>
<td>33.8</td>
<td>23.6</td>
<td>11.6</td>
<td>1.0</td>
<td>0.7</td>
<td>100.0</td>
<td>293</td>
</tr>
<tr>
<td>Indian/Asian</td>
<td>28.0</td>
<td>42.5</td>
<td>21.7</td>
<td>7.3</td>
<td>0.5</td>
<td>0.0</td>
<td>100.0</td>
<td>207</td>
</tr>
<tr>
<td>White</td>
<td>19.0</td>
<td>28.6</td>
<td>27.5</td>
<td>17.3</td>
<td>6.4</td>
<td>1.2</td>
<td>100.0</td>
<td>1 744</td>
</tr>
<tr>
<td>Other</td>
<td>15.7</td>
<td>31.4</td>
<td>29.4</td>
<td>21.6</td>
<td>0.0</td>
<td>2.0</td>
<td>100.0</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>25.2</td>
<td>34.8</td>
<td>24.4</td>
<td>11.6</td>
<td>3.3</td>
<td>0.7</td>
<td>100.0</td>
<td>3 591</td>
</tr>
</tbody>
</table>
The largest proportion (49%) of participants in the survey indicated their race as white; 36% indicated that they associated themselves as belonging to the black African group and 8% and 6% classified themselves as belonging to the Coloured and Indian/Asian groups, respectively.

The gender distribution of the respondents was as follows: 57% females and 43% males.

**Figure 1: Percentage distribution of respondents by education status**

In terms of educational status, the largest proportion (81%) of the respondents had tertiary or post-school education. Only 1% had an education level of less than matric or Grade 12.

**Figure 2: Percentage distribution of respondents by employment status**

Based on self-reported employment status, more than two-thirds (69.1%) of respondents had a full-time job (receiving a monthly salary); 11.6% of respondents were self-employed, whilst 8.1% were unemployed. These figures are not directly comparable to official unemployment figures but they provide some insight into the characteristics of the respondents.
By far, most respondents (94.2%) were living in formal dwellings: either a free-standing house, townhouse or a cluster house (81.6%), or in a flat or apartment in a block of flats (12.6%). Less than one per cent (0.9%) lived in an informal dwelling.

Figure 4 attempts to gauge residential density by measuring the household size and the size of dwellings they were living in. Respondents were asked to indicate the number of rooms that the dwelling consists of – these refer to the total number of rooms in the dwelling, including rooms used to sleep in.

The figures show that respondents who lived alone were fairly evenly distributed across the different dwelling sizes. Households with two to four residents primarily lived in dwellings with four rooms (53.8%). Households with five to nine residents primarily lived in dwellings with five or more rooms (73.5%). For larger households comprising of 10 or more residents, 83.3% lived in dwellings with five or more rooms.
4. Type of movement

Figure 5: Percentage distribution of respondents who moved in the period between the announcement and start of the lockdown period by type of movement

The majority of respondents (92.1%) did not move in the period between the announcement and the start of the lockdown period; 1.1% moved to another dwelling within the same suburb; 3.3% moved to another area/suburb/town or village within the same province they normally reside and 3.4% moved to another province.

Figure 6: Percentage distribution of respondents by province of current residence and movement in the period between the announcement and start of the lockdown period

Respondents residing in Gauteng were the least inclined to have moved from another province in the period between the announcement and the start of the lockdown period. 94.3% of Gauteng residents remained in the province. 20.9% of respondents who were currently residing in Limpopo indicated that they moved from another province to Limpopo in the period between the announcement and the start of the lockdown period.
5. Health information

Figure 7: Main sources of information about COVID-19 and current public health measures

The majority of respondents said that they obtained their information on current public health measures from news outlets, which includes local, national and international media. Information on current public health measures such as washing of hands, how to practise social distancing, etc. was obtained in this manner by 52.4% of respondents. 64.3% of respondents obtained information on COVID-19 using news outlets. Social media (including Facebook, Instagram and others) was the second most frequently used means of obtaining information on both current public health measures as well as COVID-19 (14.1% and 16.0%, respectively).
6. Health related risk behaviour

Almost 60% (59.8%) of the respondents indicated that they had to go out on occasion, whilst 40.2% managed to stay at home all of the time.

*Figure 8: Percentage of respondents who were able to stay at home the whole time during the lockdown period by dwelling type*

The majority of respondents who had gone out for grocery shopping in the past week prior to the survey did so once or twice (83.2%) and 7.0% went grocery shopping 3 to 5 times. Few respondents managed not to go out for grocery shopping at all (9.0%).

A somewhat different pattern is observed with regard to going to the pharmacy. The majority of respondents (55.5%) managed not to go out to the pharmacy at all, whilst 43.8% went out to the pharmacy once or twice. Less than one per cent (0.6%) went to the pharmacy 3 to 5 times.

Respondents’ responses indicated that they adhered to the call not to go out to public meetings, with almost all (99.0%) reporting not attending any public events, e.g. church services.

By and large, the majority of respondents did not go to work in the week prior to the survey (77.1%). Approximately 13.0% had to go to their place of work once or twice and 5.0% had to do so 3 to 5 times.
The majority (98.7%) of respondents indicated that they avoided going to large public meetings like church services. Most of the respondents avoided exposing themselves by leaving their houses only for procuring essential items (98.1%). Furthermore, the practice of social distancing when going out was a priority for 98.4% of the respondents. Regular handwashing when going out (97.7%) and upon returning after one went out (98.0%) was also important practices to most respondents.

Almost two-thirds (62.3%) of respondents indicated that they had stocked up before the lockdown. 64.0% of respondents living on farms, 63.3% living in suburbs and 58.6% living in townships had stocked up on essential goods from the grocery store or pharmacy, between the announcement of the lockdown and before the start of the lockdown.
The majority of respondents (95.3%) avoided hugging, kissing or shaking hands with non-household members in the week prior to the survey. The largest proportion of respondents who had hugged, kissed or shook hands with non-household members in the week prior to the survey were in the 18–34-year age group (8.5%).

7. Perceived impact of COVID-19

Respondents completing the survey seemed concerned about all the aspects they were asked about, to a greater or lesser degree. Respondents were mostly worried about the possible economic collapse caused by the COVID-19 virus. 93.2% indicated that they were very or extremely concerned about the possible economic collapse; 88.9% were concerned about the health of vulnerable people like elderly family members; 88.2% were concerned about the overload of the health system and 79.7% were concerned about the civil disorder that may result as a consequence of the COVID-19 virus.
8. Knowledge and perceptions of the pandemic

Figure 14: Percentage of respondents who would seek medical attention at a hospital, clinic or other health facility for non COVID-19 related issues by type of community they live in

<table>
<thead>
<tr>
<th>Type of Community</th>
<th>CBD</th>
<th>Suburb</th>
<th>Township</th>
<th>Informal settlement</th>
<th>Rural-traditional tribal area</th>
<th>Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>32.5</td>
<td>29.8</td>
<td>26.7</td>
<td>13.3</td>
<td>25.2</td>
<td>20.9</td>
</tr>
<tr>
<td>No</td>
<td>35.0</td>
<td>38.8</td>
<td>47.5</td>
<td>73.3</td>
<td>42.0</td>
<td>47.7</td>
</tr>
<tr>
<td>Yes</td>
<td>32.5</td>
<td>31.4</td>
<td>25.8</td>
<td>13.3</td>
<td>32.8</td>
<td>31.4</td>
</tr>
</tbody>
</table>

Of those respondents residing in the suburbs, 38.8% indicated that they would not seek health care, 31.4% would seek health care, whilst 29.8% were not sure if they would seek medical assistance if needed whilst COVID-19 is a threat.

Figure 15: Knowledge about how COVID-19 is transferred

<table>
<thead>
<tr>
<th>Transmission Method</th>
<th>CBD</th>
<th>Suburb</th>
<th>Township</th>
<th>Informal settlement</th>
<th>Rural-traditional tribal area</th>
<th>Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>2.4</td>
<td>36.5</td>
<td>1.8</td>
<td>26.3</td>
<td>38.3</td>
<td>32.9</td>
</tr>
<tr>
<td>No</td>
<td>1.8</td>
<td>24.9</td>
<td>0.9</td>
<td>62.7</td>
<td>32.9</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>95.8</td>
<td>38.7</td>
<td>97.3</td>
<td>11.0</td>
<td>28.8</td>
<td></td>
</tr>
</tbody>
</table>

Knowledge about the two main means of transmission of the COVID-19 virus is high. 97.3% of participants indicated that they were aware that the virus is transmitted through touching infected surfaces, whilst 95.8% of respondents knew that the virus is transmitted through having contact with a person infected with the virus. Fewer respondents were aware that the virus can transmit through contact with the stool of an infected person (38.7%). A large proportion of people were unsure about the transmission of the virus through contact with blood, stool and pets/animals.
9. COVID-19 testing

Figure 16: Knowledge about the symptoms of COVID-19

Knowledge about the main signs and symptoms of the COVID-19 virus is almost universal. The bulk of respondents indicated that:

a) having a high fever (98,5%);

b) having difficulty breathing (97,6%); and

c) having a dry cough (92,2%)

were the main symptoms of COVID-19.

Figure 17: Percentage of respondents who have possibly been in contact with an infected person, or who are/were infected

Respondents generally had minimal physical contact with infected persons (3,6%), whilst 2,6% of respondents indicated that they suspected that they have or have had COVID-19 in the past 30 days.
The majority (96.8%) of respondents indicated that they did not get tested since they were of the opinion that they did not have COVID-19. Of those respondents who suspected that they might have been infected by COVID-19, three-quarters (75.8%) did not get tested either.

For those respondents who indicated that they did not get tested, a follow-up question as to why they were not tested was asked. The bulk of respondents (83.9%) indicated that they did not believe that they had the virus, 7.8% said they did not know where to get tested, whilst 6.8% indicated that they either did not have money to get tested; or did not have transport or money for transport (1.4%) to get to the testing facility.
10. Pre-existing health conditions

Figure 20: Chronic conditions

The majority of respondents (85.7%) indicated that they did not have any chronic conditions that affect their lungs, heart or kidneys. Of the 14.3% that had some prior chronic condition, 92.2% were able to collect their chronic medication. However, 7.8% of respondents indicated that they were not able to access their medicines. The largest share of this group (45%) indicated that they were scared they would be infected. An additional 37.5% were scared to leave the house because they feared being arrested and/or fined. Approximately one-fifth (17.5%) said that they did not have money to get to the pharmacy, clinic or health facility where they could obtain medicines.

11. Access to health care

Figure 21: Percentage of respondents who wanted to access health care but could not do so

Respondents were asked to indicate if they or members of their household wanted to access health care but have been unable to do so since lockdown. The majority of respondents (93.7%) indicated that they or their household members did not need to access health care, while 4.5% responded that they or a household member needed to access health care but had been unable to do so.
Those who had answered that they wanted to but could not access health care, indicated that they could not do so because they were scared of contracting the COVID-19 virus (54.1%), and 25.5% were scared that they might get arrested or fined for being outside their houses.

12. Conclusion

The survey measures the behavioural and health impact of COVID-19 on South Africans. Some limitations of the survey are that results are mostly based on perceptions due to the qualitative nature of the survey. The survey is based on a non-probability, convenience sample, and people who had access to technology (e.g. smartphones and computers or the internet) were the only ones who completed the survey. This makes the survey biased in the type of respondents that completed the survey. The number of responses obtained for the survey was 3 591, which is in itself not representative of the general population of South Africa.

The advantages of using convenience sampling as used in the survey are that it provides a quick, convenient and affordable way to gather data, particularly during a period where face-to-face visits are not possible.

13. Explanatory notes

13.1 Purpose of the study

The purpose of the survey was to provide information that could be used by government and other service providers, to better understand the impact of the pandemic and to devise interventions to assist the population.

13.2 Statistical unit

The statistical unit for the collection and dissemination of information in this survey is the individual respondents who selected to complete the Stats SA COVID-19 online questionnaire.

13.3 Sample selection

The survey used a non-probability convenience sample. The questionnaire was sent to individuals on the Stats SA stakeholder list. It was also available on a variety of other social media platforms between 19 and 26 April 2020.

Despite the limitations, convenience sampling was selected since it provides a quick, convenient and affordable way to gather data, particularly during a period where face-to-face visits are not possible.
13.4 Limitations
The survey is highly vulnerable to selection bias and influences beyond the control of the researcher. The respondents who chose to respond to this survey are not representative of the entire South African population and the results can therefore not be generalised to the entire South African population. It is important to understand that these findings only apply to this particular set of respondents and that it should not be generalised to other populations. Due to the nature of selection, it is more difficult to identify differences between subgroups.

13.5 Rounding off
Where figures have been rounded off, discrepancies may occur between the sums of the component items and totals.

13.6 Additional information
The dataset can be made available on request. Please send requests to nielr@statssa.gov.za