Supplementary File

Study Title: Evaluation of a Public COVID-19 Dashboard in the Western Cape, South Africa: a tool for communication, trust, and transparency

Supplementary Table 1: Questionnaire with possible response options

Question	Variable Type	Possible response options	Comments
What device do you view the dashboard on?	Categorical: Nominal	• Mobile Phone • Desktop Computer/ Laptop • Tablet	
How often do you check the dashboard?	Categorical: Ordinal	• Daily • Few times a week • Once a week • Once every 2 weeks • Once a month • Less than once a month	
How easy was the Western Cape COVID-19 dashboard to use?	Likert Scale (Numeric: Discrete)	• 1 to 5	
How clear and understandable was the information on the Western Cape COVID-19 dashboard?	Likert Scale (Numeric: Discrete)	• 1 to 5	
Has the dashboard influenced your personal planning or behaviour in the past?	Binary	• Yes • No	Note: The question is non-mandatory and should the participant prefer not to answer they can move to the following question.
What purpose does the dashboard serve for you?	Categorical: Nominal	• Getting an update of Key Indicators • Viewing historical data • Ad hoc analysis • Reporting for the media • Reporting for a particular industry • Other	Note: Other allows for a free text option as well.
What is your current occupational status?	Categorical: Nominal	• Employed • Student • Unemployed • Retired	

What is your occupation?	Categorical: Nominal	• Look-up table to OFO (Organizing Framework for Occupations 2019) as reference to all occupations	Note: This only gets asked if the participant states that they are employed in the previous question
Which dashboard element do you use the most?	Categorical: Nominal	• Key Indictors • Timeline and Case Profile Graphs • GIS Map and Graph • Subdistrict Trend Page • Additional Analyses Graphs • Active Cases GIS Map and Graphs	Note: These options will be provided with images representing the various options.
Overall, on a scale from 1 to 10, how would you rate the Western Cape COVID-19 Dashboard?	Likert Scale (Numeric: Discrete)	• 1 to 10	
Which gender do you identify as?	Categorical: Nominal	• Male • Female • Prefer not to say	
What age group do you fall in?	Categorical: Ordinal	• 0 to 17 years old • 18 to 29 years old • 30 to 39 years old • 40 to 49 years old • 50 to 59 years old • 60 to 69 years old • 70 to 79 years old • >80 years old	
Which city do you come from?	Categorical: Nominal	• All cities in the world	Note: This field will be include a lookup for all cities in the world
If you'd like to receive a copy of the results and analysis from this survey, please provide your email address. If not, simply click submit.	Email Address	• Free text with email validation	Note: This is not for analysis purposes, will be immediately separated from the rest of the dataset and will only be used to communicate findings from the survey back to the participant.

Supplementary Analyses

Supplementary Table 2: Number of views by continental region

|		COVID-19 dashboard views	
		Number of views	**Frequency**
Continental region	Africa	2,147,897	95.53%
	Europe	54,853	2.44%
	Northern America	17,041	0.76%
	Asia	5,264	0.23%
	Oceania	4,955	0.22%
	Latin America and the Caribbean	519	0.02%
	Unknown	17,927	0.80%
	Total:	**2,248,456**	**100%**

Supplementary Table 3: Number of views per day by COVID-19 period (30 April 2020 – 29 April 2021)

		COVID-19 Wave Period				
		Initial 2 weeks of launch[3]	**Wave 1[2]**	**Interwave (1)[2]**	**Wave 2[3]**	**Interwave (2)[2]**
	n	15	109	45	136	60
Number of views per day	Median[1]	13,903	8,950	3,469	4,778.5	3,140
	Sum	233,981	957,098	155,341	711,493	190,543
	Std. Deviation	3,816.2	2,788.4	630.3	2,089.9	627.8
	Minimum	11,383	3,385	2,445	2,415	2,202
	Maximum	23,255	16,340	5,484	10,984	4,492

[1]p-values calculated with one-way ANOVA test or Kruskal-Wallis test all showed statistical significance $p < 0.05$
[2]The Shapiro-Wilk test confirmed a normal distribution with a p-value >0.05 for Wave 1, Interwave (1), Interwave (2). A one-factor analysis of variance (ANOVA) for these normally distributed periods has shown that there is a significant difference between these categorical variable COVID-19 Wave Periods and the variable Number of views per day $F = 164.87$, $p = <.001$
[3]The Shapiro-Wilk test confirmed a non-normal distribution by noting a p-value <0.05 for Initial 2 weeks of launch and Wave 2. A Kruskal-Wallis test for these non-normally distributed periods showed that there is a significant difference between these categorical variable COVID-19 Wave Periods in relation to the variable Number of Views $p = <.001$.
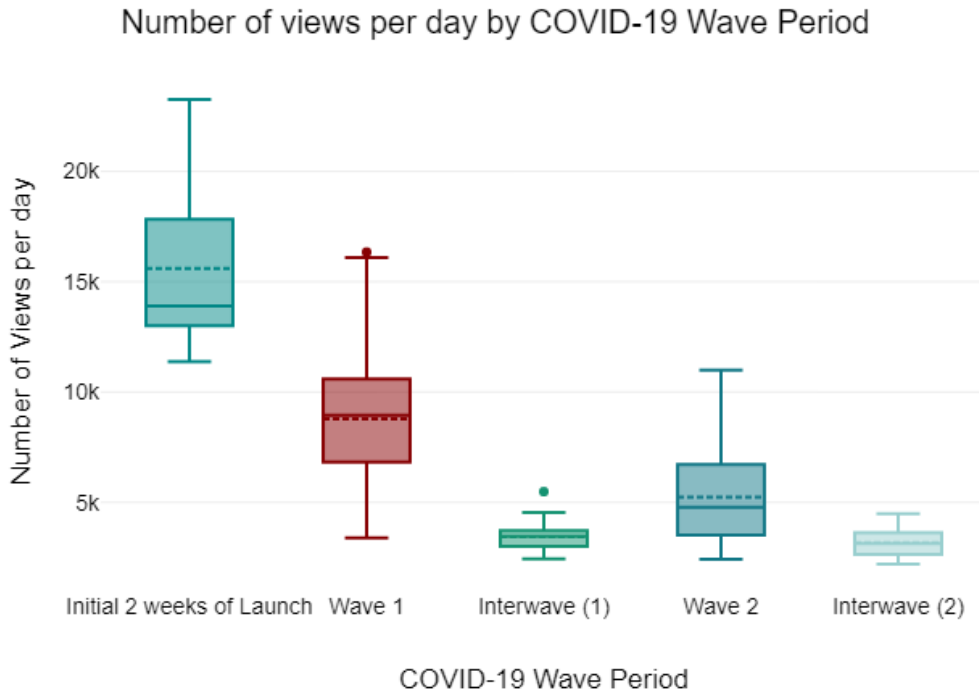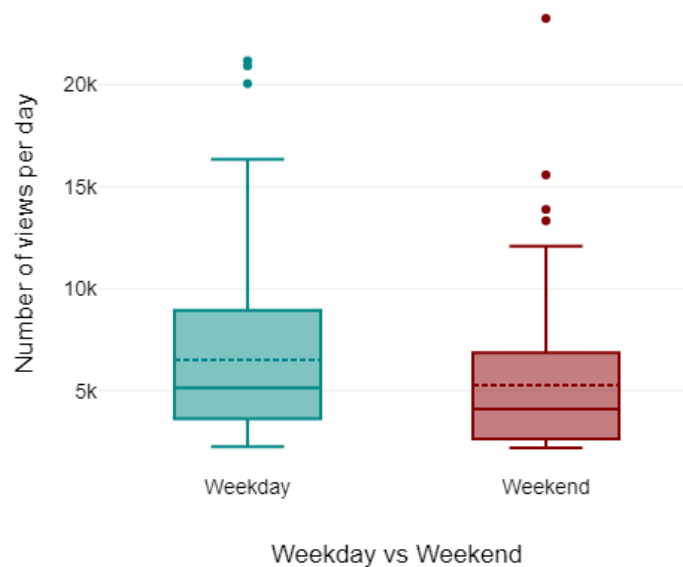
Supplementary Figure 1: Number of views per day by COVID-19 wave period
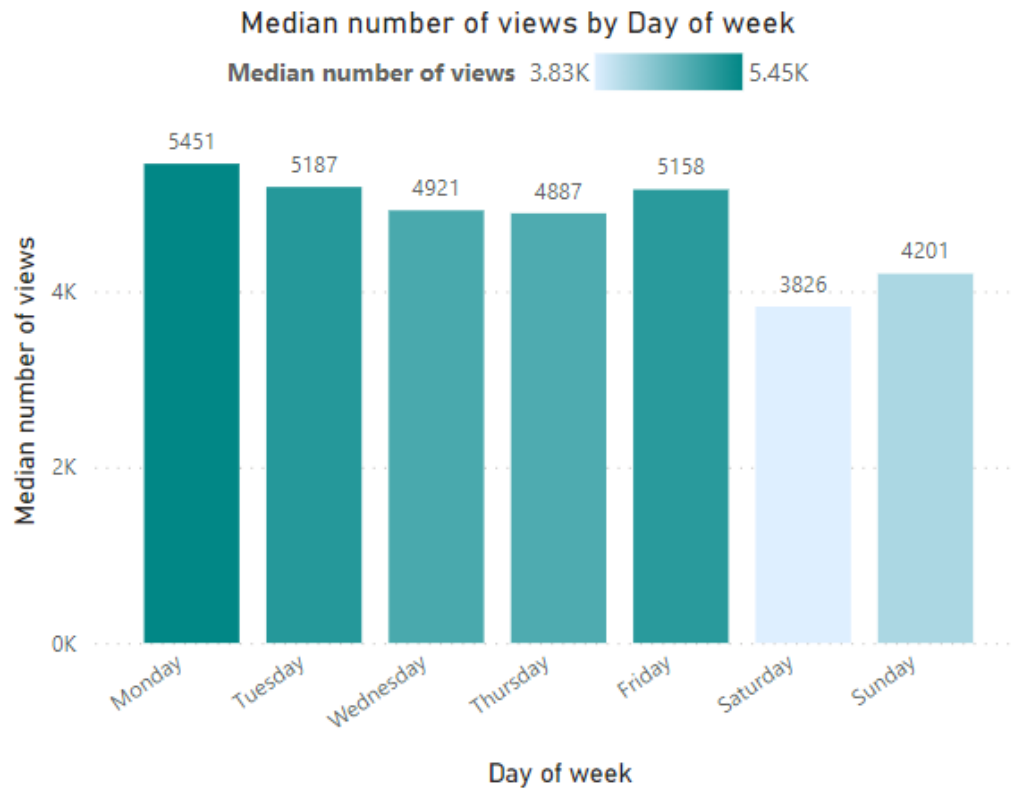
Supplementary Figure 2: Median number of views by day of week

Number of views per day by weekday vs weekend

Supplementary Figure 3: Number of views per day by weekday vs weekend*

*The Shapiro-Wilk test confirmed a non-normal distribution by noting a p<0.05.
 p-value calculated with Mann-Whitney U-Test showed statistical significance between the groups p<0.05

Supplementary Table 4: Reported devices used by occupational status* (n=794)

		Occupational Status									
		Employed		Retired		Student		Unemployed		Total	
		n	%	n	%	n	%	n	%	n	%
Device Used	**Desktop Computer / Laptop**	332	41.81%	154	19.4%	12	1.51%	22	2.77%	520	65.49%
	Mobile Phone	134	16.88%	46	5.79%	16	2.02%	16	2.02%	212	26.7%
	Tablet	34	4.28%	25	3.15%	1	0.13%	2	0.25%	62	7.81%
	Total	500	62.97%	225	28.34%	29	3.65%	40	5.04%	794	100%

*p-value from Chi² test <0.05

Supplementary Table 5: Reported frequency of use by age category* (n=794)

Frequency of use

		Daily		Few times a week		Once a week		Less than once a month		Once a month		Once every 2 weeks		Total
		n	%	n	%	n	%	n	%	n	%	n	%	n
Age Group	0 to 29 years old	13	29.55%	15	34.09%	7	15.91%	2	4.55%	3	6.82%	4	9.09%	44
	30 to 49 years old	136	43.87%	90	29.03%	34	10.97%	10	3.23%	17	5.48%	23	7.42%	310
	50 to 69 years old	206	61.68%	68	20.36%	33	9.88%	7	2.1%	8	2.4%	12	3.59%	334
	>70 years old	69	65.09%	19	17.92%	13	12.26%	2	1.89%	0	0%	3	2.83%	106
	Total	424		192		87		21		28		42		794

*p-value from Chi^2 test <0.05

Supplementary Table 6: Reported impact on personal planning and behaviour by element most often used* (n=794)

		Dashboard has influenced participant's personal planning or behaviour					
		YES		NO		Total	
		n	%	n	%	n	%
	Key Indicators	242	78.32%	67	21.68%	309	38.92%
	GIS Map and Graph	59	67.05%	29	32.95%	88	11.08%
Dashboard element most often used	Additional Analyses Graphs	60	89.55%	7	10.45%	67	8.44%
	Subdistrict Trend Page	84	77.78%	24	22.22%	108	13.60%
	Active Cases GIS Map and Graphs	76	79.17%	20	20.83%	96	12.09%
	Timeline and Case Profile Graphs	86	68.25%	40	31.75%	126	15.87%
	Total	607	76.44%	187	23.56%	794	100%

*p-value from Chi^2 test <0.05

Supplementary Table 7: Reported purpose of dashboard for participants* (n=1279)

What purpose does the dashboard serve for you?	Number of responses Frequency (n)	%
Getting an update of Key Indicators	739	57.78%
Viewing historical data	277	21.66%
Ad hoc analysis	213	16.65%
Reporting for a particular industry	36	2.81%
Reporting for the media	14	1.09%
Total	1279	100%

*Multiple responses were allowed for this question. Free text feedback marked as 'other' was removed for this analysis.