CENTRE FOR ANALYTICS & BEHAVIOURAL CHANGE

VACCINE HESTITANCY IMPACT AMPLIFIER

SEGMENTATION REPORT

VACCINE TRUST SPECTRUM
SEGMENTATION REPORT

This report unpacks each of the six *Vaccine Trust Spectrum* segments in the model described by the CABC Audience Analysis report finalized on 31 August 2021. Intended to provide distilled insights to be used in crafting creative communication, the following document summarizes key learnings from our research into Sub-Saharan social media conversation about the COVID-19 vaccine.

The first phase of this project entailed a review of recently published reporting on the topic, including country-specific and regional reports on vaccine social media conversation by UNICEF South Africa, the African Infodemic Response Alliance (a WHO-hosted network) and the HST (Health Systems Trust). This was combined with research conducted by the CABC as part of our contribution to the most recent 18 weekly social listening reports published by the RCCE (Risk, communications and community engagement) SA National Department of Health working group. Non-social media based research obtained during the communications strategy development process also informed our inquiry in this phase.

In the following phase of this project, we compiled a set of keywords used to run analytics on the general vaccine conversation. After reviewing this data, we performed a hashtag analysis on groups of hashtags used to disseminate both pro- and anti-vaccine content. The sum of this data together with reporting from the aforementioned organizations was used to frame our segmentation.

Next, crowd-sourcing was introduced into the project by defining a set of questions that the crowd would answer for each verified[1] post. After defining the crowd questions, a random

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[1] Each post is verified by at least three crowd members that are able to process content in local languages

sample of the general vaccine conversation was sent for verification. These questions not only identified sub-narratives within the greater vaccine conversation but also indicate positive, negative or neutral sentiment towards the COVID-19 vaccine.

The *Vaccine Trust Spectrum* segmentation was built using these crowd-verified posts in our analytics platform. After conducting exhaustive quality control checks, we generated account lists for each segment. Using these account lists, we are able to report on total account activity in anonymized, aggregated form. Note that this is an internal document used deepen strategic insights.
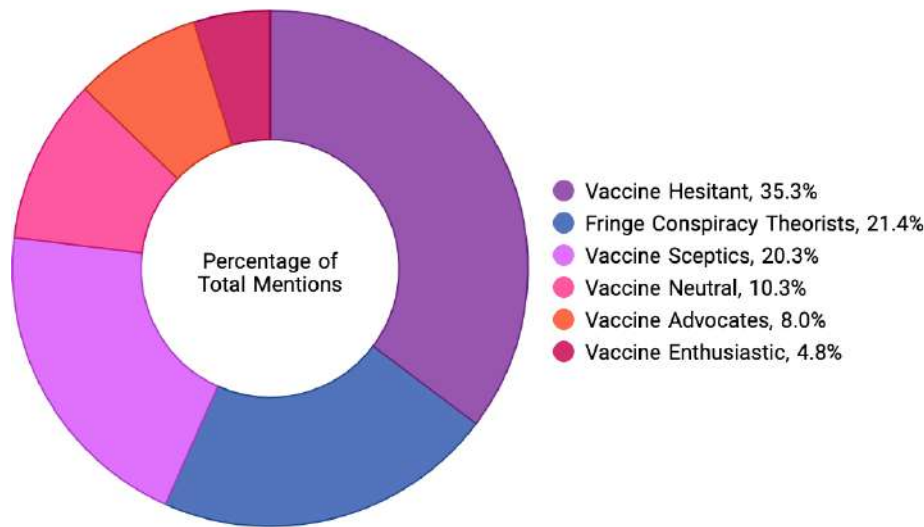

Fig. 1 Segments by percentage volume. Please note that the classifications range as follows: Fringe Conspiracy Theorists, Vaccine Sceptics, Vaccine Hesitant, Vaccine Neutral, Vaccine Advocates to Vaccine Enthusiastic.
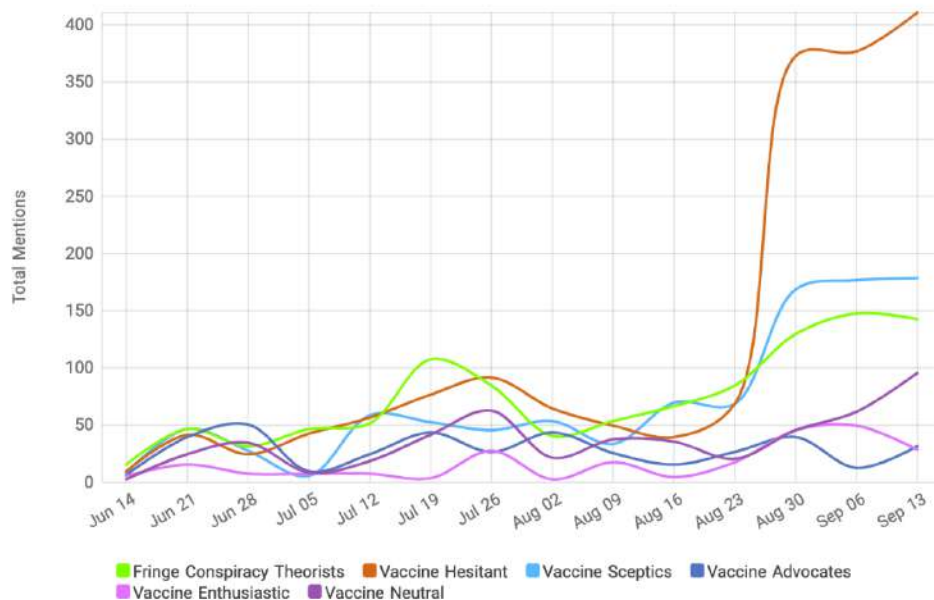
Fig. 2 Segmentation by volume over time

FRINGE CONSPIRACY THEORISTS / EXTREME ANTI-VACCINE VIEWS

- Deeply entrenched anti-vaccine beliefs/viewpoints.
- Marginalized, even ostracized viewpoint.
- Deeply suspicious, may express feelings of victimhood/persecution.
- Respond poorly to fact-based interventions.
- Interests: Politics.
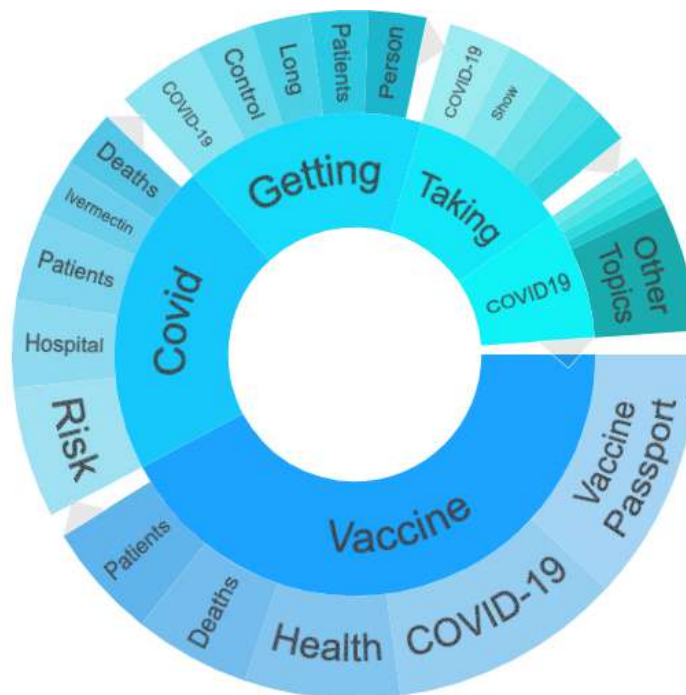- Index heavily towards conversation about global North/Western world.

Fig. 3 Topic wheel showing most commonly discussed topics by fringe conspiracy theorists

Top Hashtags	TWEETS	RETWEETS	ALL TWEETS ▾	IMPRESSIONS
#covid19	293	485	778	1323997
#vaccinepassport	78	382	460	1641910
#presidentzuma	49	410	459	2054578
#vaccinepassports	120	294	414	911074
#djsbu	0	361	361	5296448
#southafrica	142	149	291	476361
#novaccinepassports	12	245	257	353665
#ad	0	227	227	3420876
#informedconsent	145	81	226	318078
#novaccinepassportsanywhere	4	220	224	433244

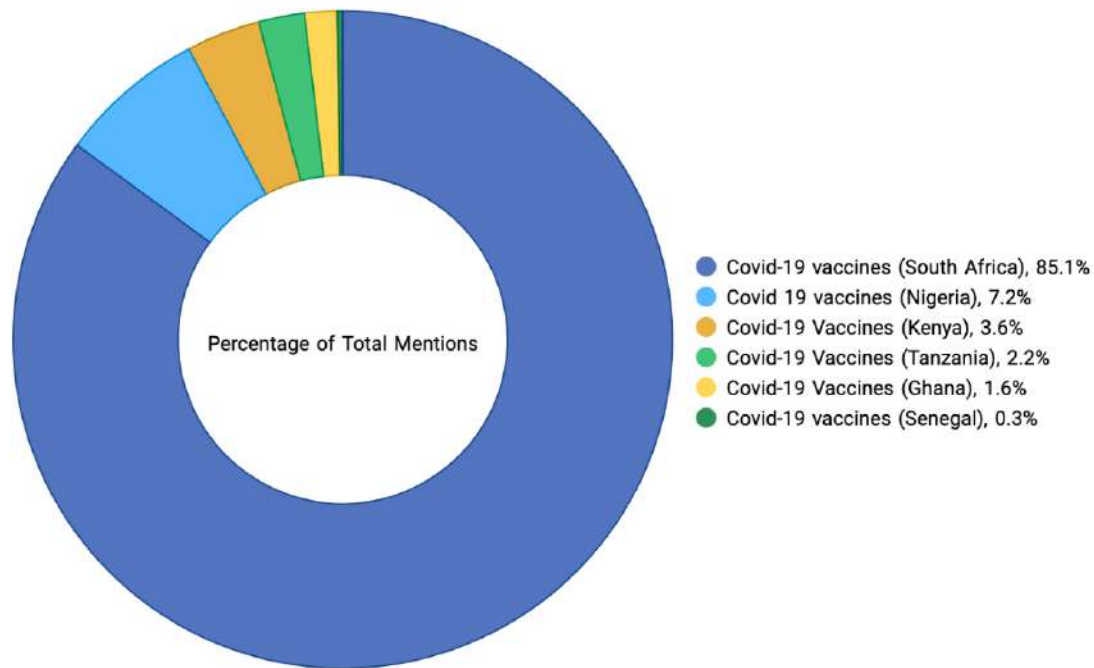Fig. 4 Most commonly used hashtags by fringe conspiracy theorists

Fig. 5 Percentage of total mentions by country (fringe conspiracy theorists)
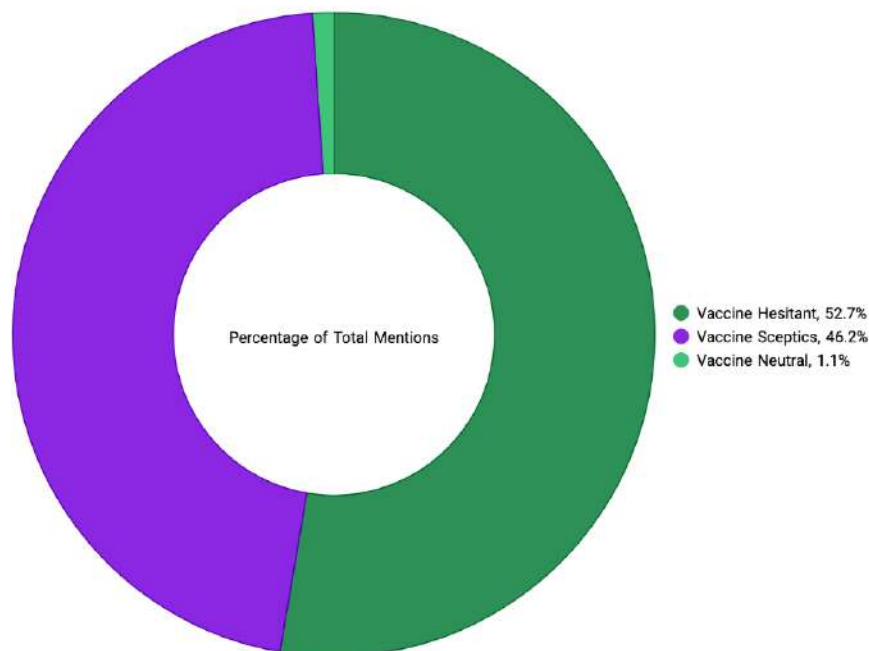
Fig. 6 Most common words and emojis in author bio (fringe conspiracy theorists)

Fig. 7 Most commonly used emojis (fringe conspiracy theorists)

Percentage of Total Mentions

● Vaccine Hesitant, 52.7%
● Vaccine Sceptics, 46.2%
● Vaccine Neutral, 1.1%

Fig. 8 Segment overlap (fringe conspiracy theorists)

VACCINE SCEPTICS

- Several or many barriers to vaccine uptake.
- Believe that vaccine risks outweigh benefits.
- Engage in efficacy conversation by saying that the protection afforded by the vaccine is or may be insufficient.
- Concerns tend to be more rooted in reality than those of fringe conspiracists.
- Sticking point: mistrustful of government (unlikely to change).
- Flowing from this mistrust, suspect ulterior motives behind vaccine policy (ivermectin and vaccines as a money-making scheme).
- Discuss local issues while still engaging with conversation about the vaccine outside of their home country.
- Reactive to feelings of lost personal agency, engaging in the forced vaccination sub-narrative by expressing negative sentiment towards the vaccine.
- Interests: business, politics.
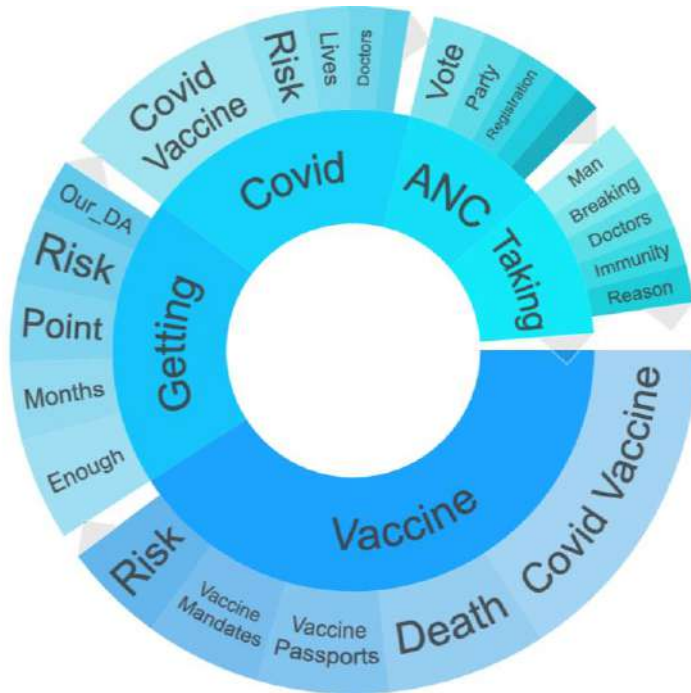- South African, English-speaking, Christian.

Fig. 9 Topic wheel showing most commonly discussed topics by vaccine sceptics

Top Hashtags	TWEETS	RETWEETS	ALL TWEETS ▼	IMPRESSIONS
#covid19	225	457	682	2932270
#voteppc	26	427	453	431558
#vaccinepassports	124	279	403	1127293
#novaccinepassports	39	315	354	826787
#presidentzuma	3	274	277	2813668
#vaccinepassport	26	236	262	1223690
#southafrica	64	175	239	273014
#ivermectin	117	115	232	409243
#novaccinepassportsanywhere	3	227	230	645594
#voetsekanc	19	183	202	493845

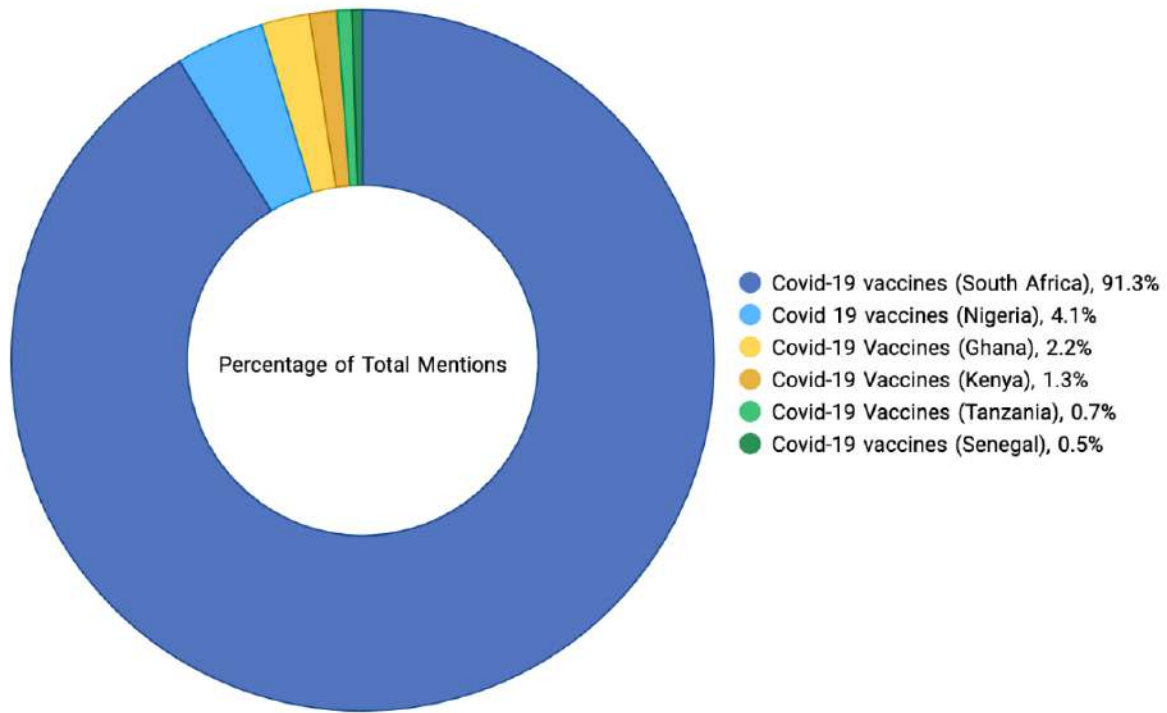Fig. 10 Most commonly used hashtags by vaccine sceptics

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Fig. 11 Percentage of total mentions by country (vaccine sceptics)

Fig. 12 Most common words and emojis in author bio (vaccine sceptics)

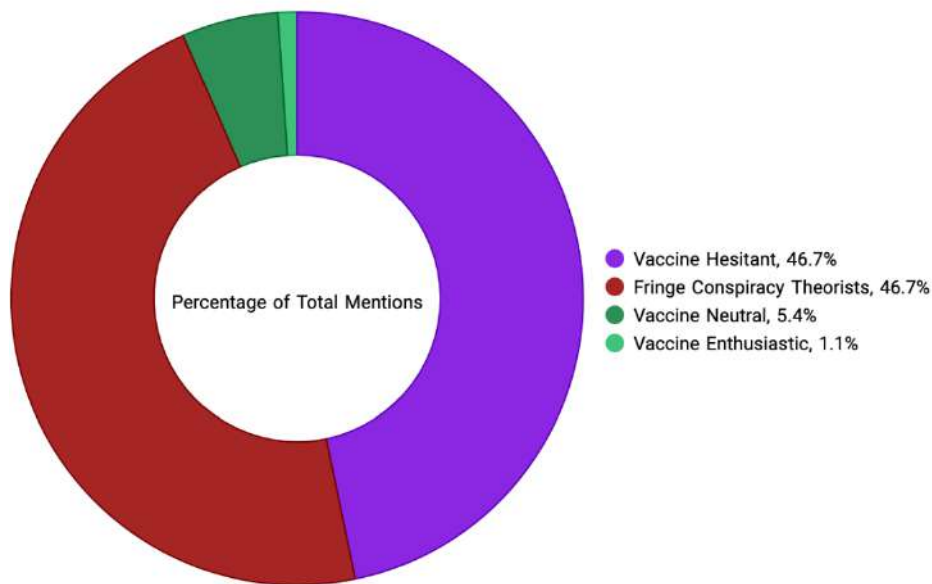Fig. 13 Most commonly used emojis (vaccine sceptics)

Percentage of Total Mentions

- Vaccine Hesitant, 46.7%
- Fringe Conspiracy Theorists, 46.7%
- Vaccine Neutral, 5.4%
- Vaccine Enthusiastic, 1.1%

Fig. 14 Segment overlap (vaccine sceptics)

VACCINE HESITANT

- Single or few barriers to vaccine uptake.
- Focused on practical issues that affect day-to-day life (i.e., side effects and mandatory vaccinations for travel and in the workplace).
- When addressing side effects, express negative sentiment towards the vaccine, believing there is enough reasonable doubt to prevent them from getting vaccinated.
- Anxious/scared of introducing a foreign substance into their bodies, an irreversible decision (what if the rumours are true?).

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- When discussing forced vaccination, users express neutral sentiment towards the vaccine, suggesting that feelings of lost personal agency are not a key barrier to vaccination.
- Overwhelmed by conflicting information combined with institutional mistrust.
- Lifetime of broken promises casts doubt on official pro-vaccine comms from official channels (i.e. nDOH, the presidency).
- Generally, they believe in science and are responsive to fact-based interventions tailored to their specific concerns (personal health and safety weighed against the tangible benefits of vaccination).
- These concerns may be overlooked in pro-vaccine messaging that target 'anti-vaxxers' as fringe conspiracy theorists.
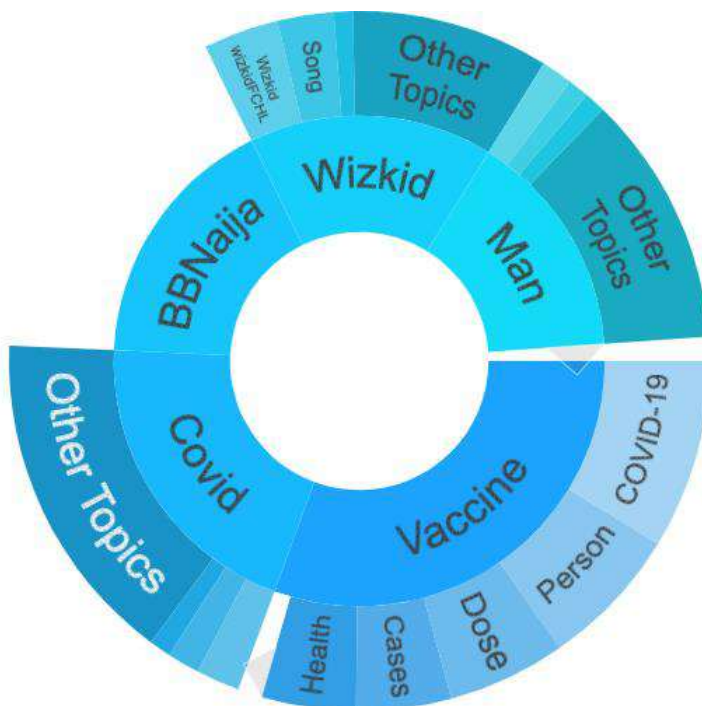

Fig. 15 Topic wheel showing most commonly discussed topics by vaccine hesitant segment

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Top Hashtags	TWEETS	RETWEETS	ALL TWEETS ▼	IMPRESSIONS
#bbnaija	6921	587	7508	18989092
#covid19	695	1452	2147	7176950
#wizkidfchl	0	1398	1398	2313168
#wizkid	0	1155	1155	1840929
#mufc	1	864	865	4077632
#madeinlagos	0	763	763	1125324
#miltour	1	720	721	1004822
#presidentzuma	12	601	613	5281477
#coronavirus	307	241	548	881320
#voteppc	26	441	467	460637

Fig. 16 Most commonly used hashtags by vaccine hesitant segment

Percentage of Total Mentions

- Covid-19 vaccines (South Africa), 55.2%
- Covid 19 vaccines (Nigeria), 27.8%
- Covid-19 Vaccines (Kenya), 7.4%
- Covid-19 Vaccines (Ghana), 5.9%
- Covid-19 Vaccines (Tanzania), 2.9%
- Covid-19 vaccines (Senegal), 0.8%
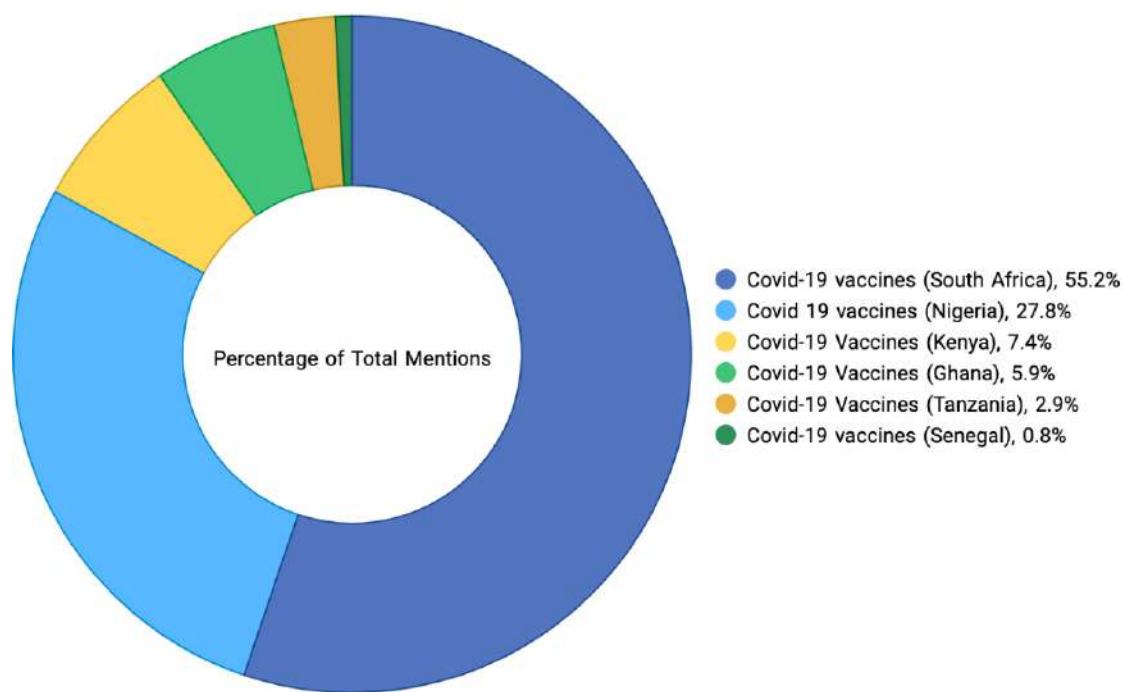
Fig. 17 Percentage of total mentions by country (vaccine hesitant)

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Fig. 18 Most common words and emojis in author bio (vaccine hesitant)

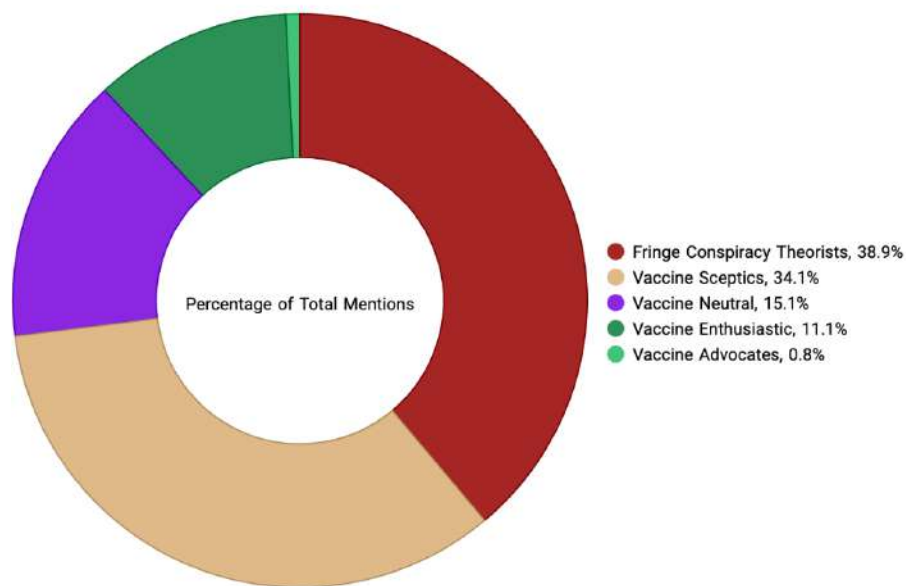Fig. 19 Most commonly used emojis (vaccine hesitant)

Fig. 20 Segment overlap (vaccine hesitant)

VACCINE PROCRASTINATORS / NEUTRAL

- Many don't really want to get vaccinated but feel like they should.
- This segment leans toward pro-vaccine views with many posts that describe individual's vaccination experiences.
- Vulnerable to peer pressure and the urge to conform to social norms (i.e. parents nagging or a reluctance to be viewed by others as an 'anti-vaxxer').
- May be averse to the experience of receiving an injection.
- These accounts are not overly focused on COVID; they discuss vaccination along with many other topics.
- Biding their time to see if the anti-vaccine rumours are true.
- Lurking in the COVID conversation without explicitly stating that they want to delay the decision.
- Engage in the vaccine efficacy conversation without expressing sentiment for or against the vaccine.
- Pragmatic, reactive to issues that affect them directly (e.g., forced vaccination in the workplace or for travel and 'real' side effects like soreness or flu-like symptoms after vaccination).
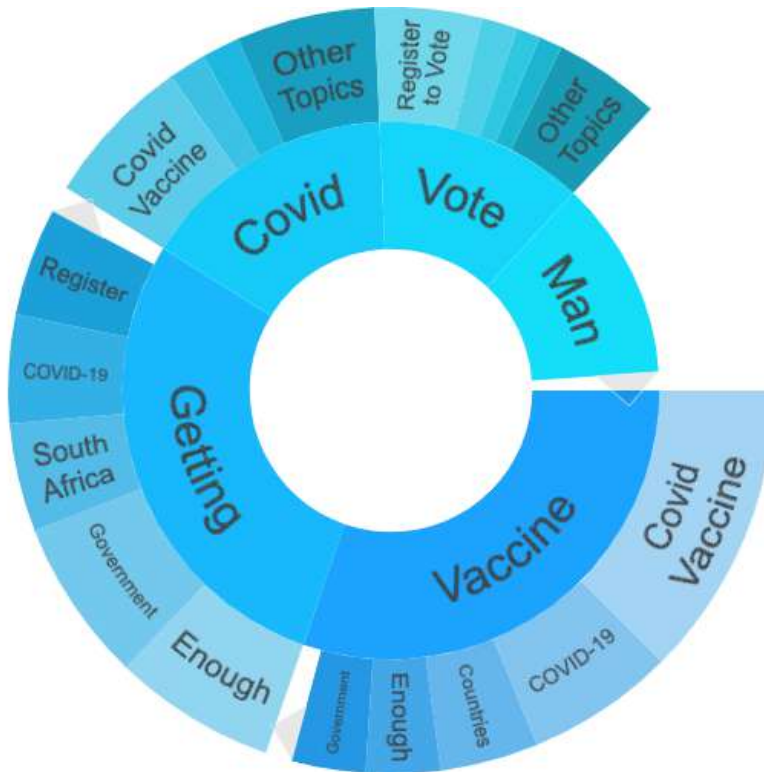
Fig. 21 Topic wheel showing most commonly discussed topics by vaccine procrastinators / neutral segment

Top Hashtags	TWEETS	RETWEETS	ALL TWEETS ▼	IMPRESSIONS
#covid19	190	1667	1857	39142747
#registertovoteeff	9	1509	1518	4364573
#f1	17	633	650	3872605
#voteeff	14	623	637	1917072
#covid	29	376	405	4207102
#vaccinerolloutsa	118	283	401	13425706
#italiangp	18	336	354	2021197
#masculinitysaturday	6	297	303	2396036
#sarscov2	4	287	291	167297
#metgala	10	237	247	1565161

Fig. 22 Most commonly used hashtags by vaccine procrastinators / neutral segment
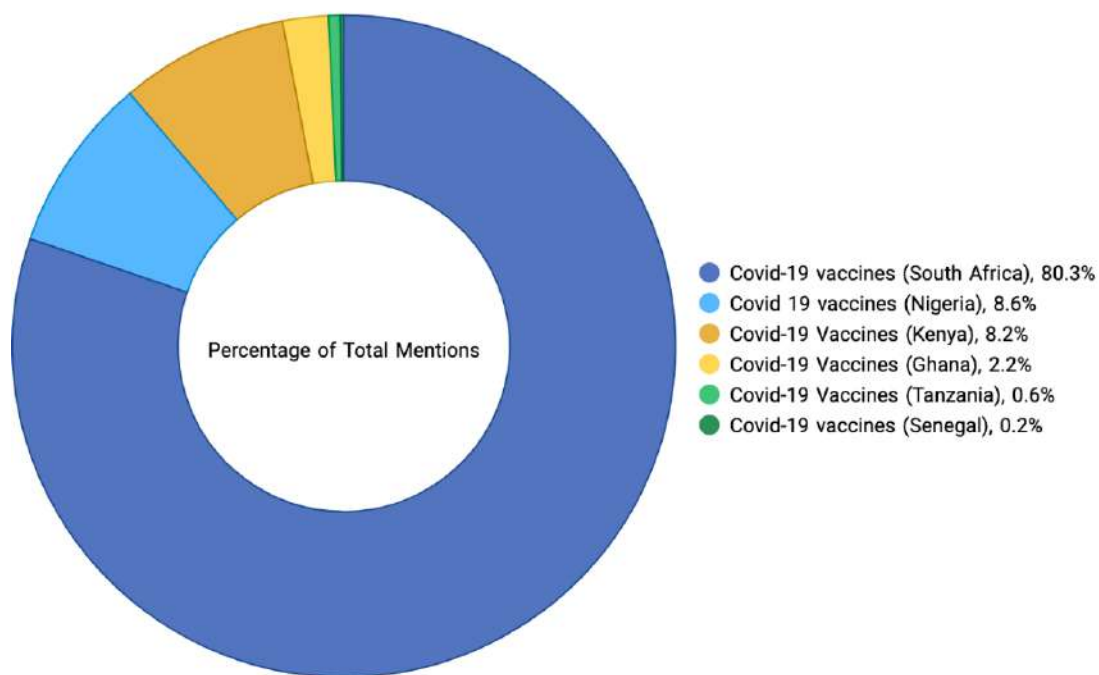
15

Fig. 23 Percentage of total mentions by country (vaccine procrastinators / neutral)

Fig. 24 Most common words and emojis in author bio (vaccine procrastinators / neutral)

Fig. 25 Most commonly used emojis (vaccine procrastinators / neutral)
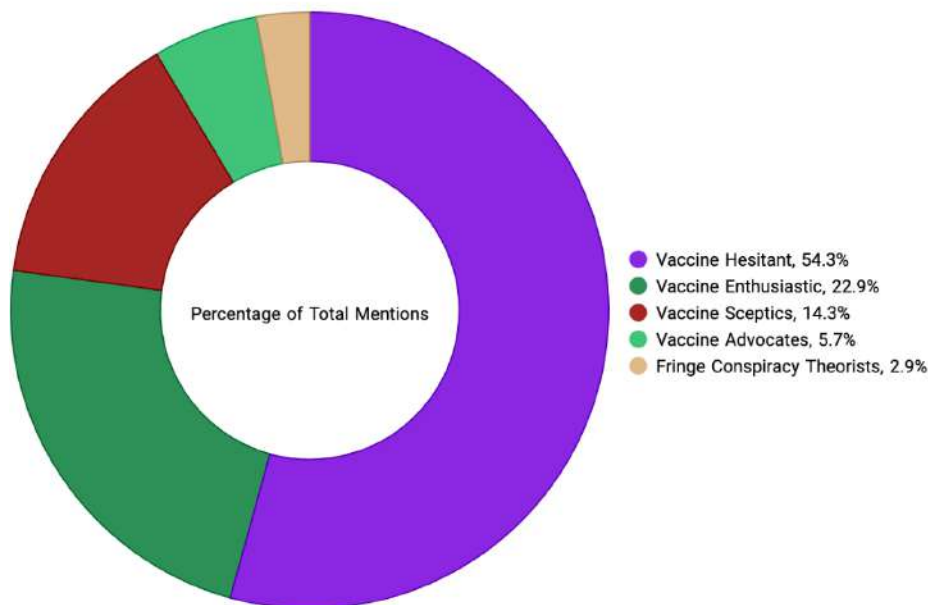

Percentage of Total Mentions

● Vaccine Hesitant, 54.3%
● Vaccine Enthusiastic, 22.9%
● Vaccine Sceptics, 14.3%
● Vaccine Advocates, 5.7%
● Fringe Conspiracy Theorists, 2.9%

Fig. 26 Segment overlap (vaccine procrastinators / neutral)

VACCINE ENTHUSIASTIC

- Decided that the benefits of vaccination outweigh the perceived risks.
- Reinforce pro-vaccination social norms through peer interaction.
- Motivated by personal/family protection.
- Engage in conversation about side effects by describing their personal experience post-vaccination, often reporting minimal side effects and encouraging others to vaccinate.
- Some support vaccinations while opposing forced vaccinations.
- Many are critical of vaccine rollout, stemming from distrust in government.
- Interests: sports, health.

- Greater proportion of females and students.
- More likely to share (reputable) pro-vaccine content than create it.
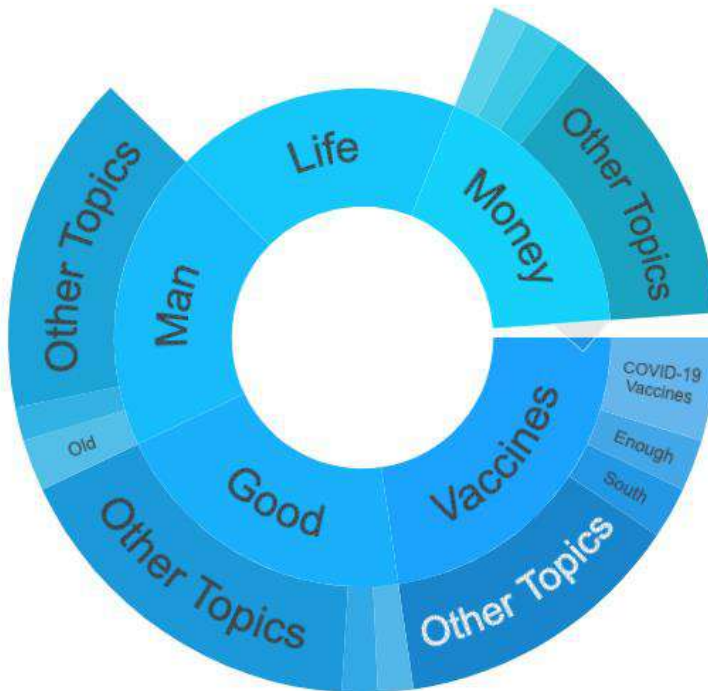

Fig. 27 Topic wheel showing most commonly discussed topics by vaccine enthusiasts

Top Hashtags	TWEETS	RETWEETS	ALL TWEETS ▼	IMPRESSIONS
#news	4973	5	4978	6825506
#sm	2845	1	2846	3901734
#bbnaija	197	1801	1998	26922684
#sports	1833	0	1833	2503539
#covid19	241	1362	1603	35092613
#mufc	9	1259	1268	4082204
#hrva	741	0	741	1012232
#bbnaija6	49	482	531	11117913
#ad	23	481	504	9530606
#djsbu	0	472	472	6587349

Fig. 28 Most commonly used hashtags by vaccine enthusiasts

- Covid-19 vaccines (south africa), 67.3%
- Covid 19 vaccines (Nigeria), 17.0%
- Covid-19 Vaccines (Kenya), 8.5%
- Covid-19 Vaccines (Ghana), 4.9%
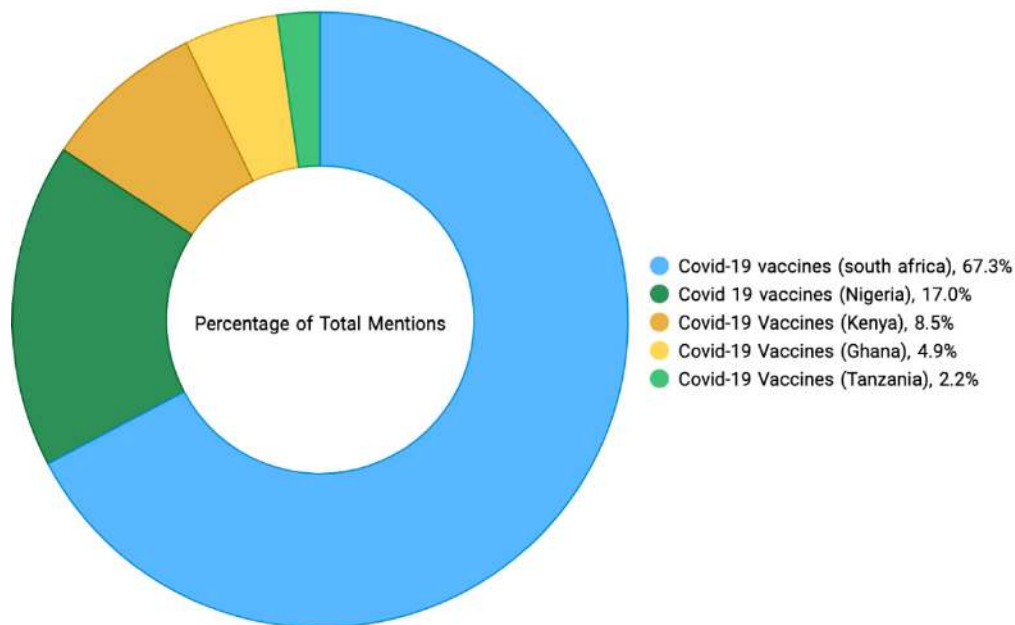- Covid-19 Vaccines (Tanzania), 2.2%

Fig. 29 Percentage of total mentions by country (vaccine enthusiasts)
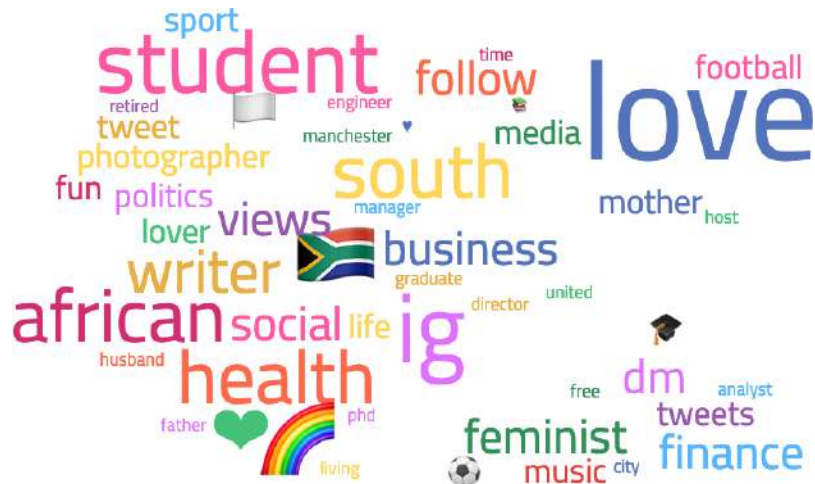
Fig. 30 Most common words and emojis in author bio (vaccine enthusiasts)

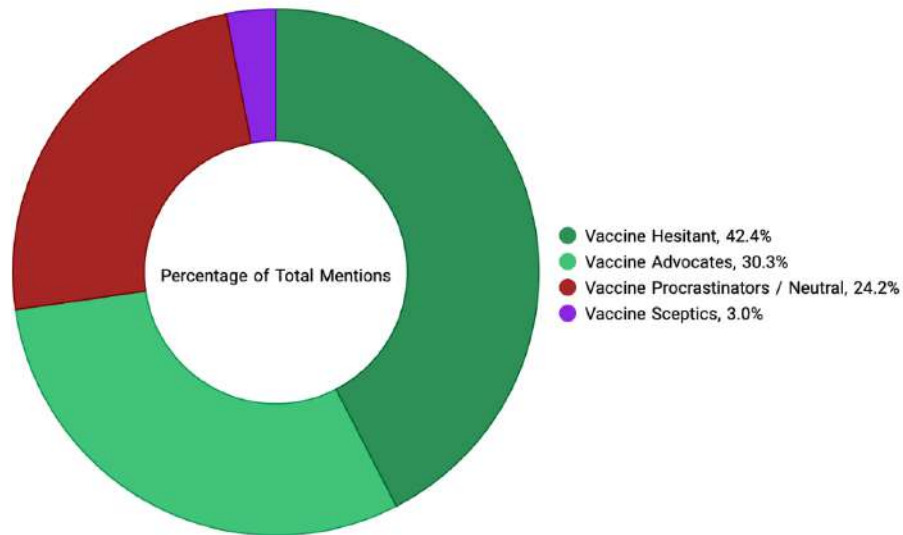Fig. 31 Most commonly used emojis (vaccine enthusiasts)

Fig. 32 Segment overlap (vaccine enthusiasts)

VACCINE ADVOCATES

- Deeply entrenched pro-vaccine viewpoint.
- Urge others to vaccinate, often expressing frustration at the decision not to vaccinate.
- Champions of science.
- Engage in conspiracy conversations to debunk, disagree or argue.
- Underlying institutional mistrust surfaces in calls for fair and equitable access to the vaccine.
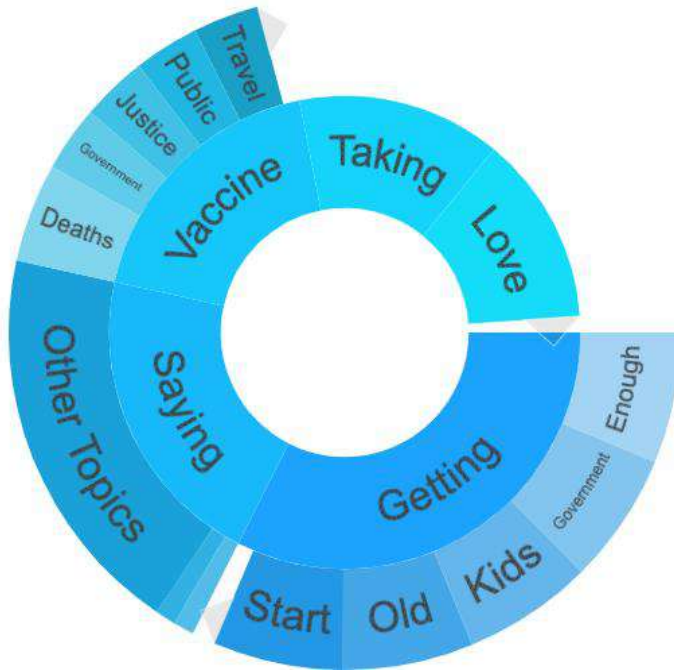- Reactive to fact-based interventions.

Fig. 33 Topic wheel showing most commonly discussed topics by vaccine advocates

Top Hashtags	TWEETS	RETWEETS	ALL TWEETS ▼	IMPRESSIONS
#covid19	269	1602	1871	39344566
#f1	17	747	764	3473242
#mufc	23	621	644	21630549
#bbnaija	32	590	622	7619987
#djsbu	2	483	485	5233856
#italiangp	13	385	398	1742398
#covid	22	329	351	3170083
#metgala	12	296	308	1934192
#theestateon3	165	137	302	1871978
#sarscov2	3	294	297	335237

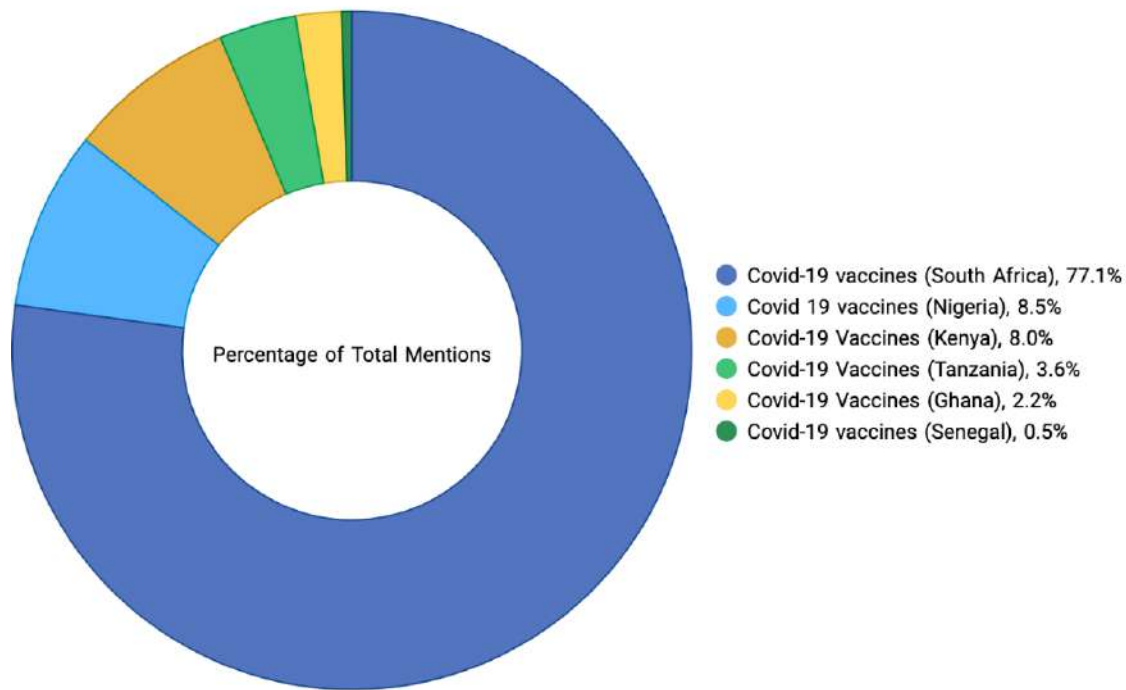Fig. 34 Most commonly used hashtags by vaccine advocates

Fig. 35 Percentage of total mentions by country (vaccine advocates)

Fig. 36 Most common words and emojis in author bio (vaccine advocates)
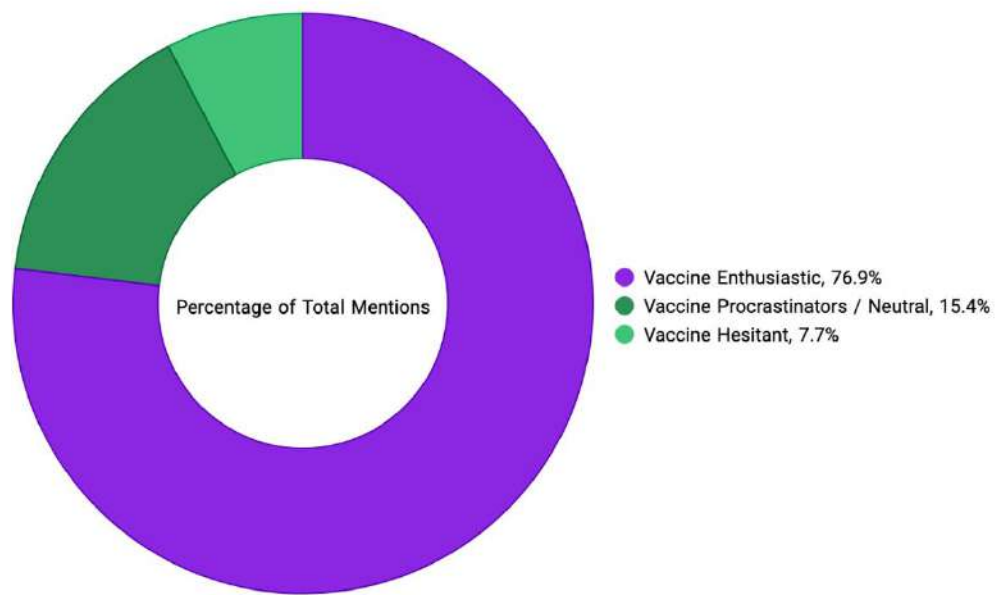
Fig. 37 Most commonly used emojis (vaccine advocates)

Fig. 38 Segment overlap (vaccine advocates)