Supplementary File S2

# Group 01 Themes in T1:

## Worries and fears

1. '@whitehouse @realdonaldtrump no doubt...america first and only america first in #covidー19 cases and deaths because of the malfeasance &amp; incompetence of pathological liar, corrupt criminal #donaldtrump.\n\n#americafirst\n\n#maga\n\n#winning\n\n#trumpvirus\n\n#trumpgenocide \n\n#covid19\n\nhttps://t.co/rduhcqfrbk',
2. 'the world is facing two pandemics simultaneously: covid-19 and hunger https://t.co/w4hremcovx',
3. '@kattavernd jee: india holds crucial college exam amid covid-19 fears yahoo news: one of ind https://t.co/pwwpnxhccp',
4. 'kraft group: how covid-19 has changed sports &amp; entertainment - extreme networks https://t.co/0wcuabqqbk',
5. '@walther\_corey @anontrumphater1 @seanhannity i wish that covid-19 never happened. sometimes i wonder, though, if it was because it’s an election year in china, and here at home in the united states, for that matter i wonder if the rhetoric from the vaccine is being delayed for political reasons for trump to win?',
6. '‘white house cover-up’: new report show trump and pence withheld truth about covid-19 as they spread lies https://t.co/entowp4ir1 via @flipboard',
7. '5 ways financial problems negatively affect your marriage, and tips on how to solve them together | https://t.co/8oo4w77ju8 https://t.co/5xmgxfy8kw #financialstress #socialwork #socialworkers #financialsocialwork #coronavirus #covid19 #pandemic https://t.co/ymtdjcks2f',
8. "on @realdonaldtrump's watch, 187,736 americans have died from #covid19 (22.0% of all deaths worldwide). that is about the same as 11,043 university of texas massacres which killed 17 people in 1966: https://t.co/nnvvdgwu8o",
9. 'european children get to head back to school amid coronavirus fears - https://t.co/qnamnga0sm',
10. 'who made america number one in covid-19 deaths in the world? who wants absolute authority? who wants to be president for life? who is now threatening civil war should he lose? maybe this november, some of you may want to give a shit and think about #votebluetosaveamerica',
11. 'covid-19 spreads as israel tightens gaza siege https://t.co/e8qooibbnk',
12. '@sapienist @realdonaldtrump trump\'s proven he\'s willing to kill as many people as he can get away with. he\'s destroyed every agency that could have prevented #covid19 note cdc silence? lost allies, world respect. other countries wonder what kind of people we are"..who can blame them, million fail to #vote',
13. 'who made america number one in covid-19 deaths in the world? who wants absolute authority? who wants to be president for life? who is now threatening civil war should he lose? maybe this november, some of you may want to give a shit and think about #voteblue2020',
14. 'european children get to head back to school amid coronavirus fears https://t.co/deu18g2vff',
15. 'who made america number one in covid-19 deaths in the world? who wants absolute authority? who wants to be president for life? who is now threatening civil war should he lose? maybe this november, some of you may want to give a shit and think about #votebluedownballot',
16. 'bad "analogy", mr. calabrese.\na virulent infection that can kill (we never know precisely who covid-19 will target lethally), is worth taking masking, social-distancing &amp; handwashing precautions against so that others don\'t catch what you cough out, sneeze out, speak out, etc. https://t.co/00gn0suljl https://t.co/pzet7uhmqs',
17. "india sets world's highest single-day rise with 78,761 new coronavirus cases https://t.co/qu0txwurlk",
18. 'thank you sir for all your good works including your fight against covid-19 god will reward you adequately and as we lagosian are "calming down" kindly take necessary steps towards this letter\nthank you and god bless.\n\nsigned : @jidejamez',
19. "@h\_mitchellphoto sorry for your loss. according to an article on a south korean starbucks, patrons not wearing masks who were exposed to covid-19 via the ventilation system became infected. however, starbuck's staff were wearing masks and did not. apparently, it works both ways.",
20. 'iowa state, in the worst city for covid-19 in the country, will let 25,000 fans attend season opener https://t.co/slngwwofrr via @yahoo',

## Mental health:

1. "“the coronavirus' staggering toll on america's mental health” &gt; more than half of young adults 18-24 report symptoms of anxiety or depressive disorder @advisorybd https://t.co/flraiblk4m #covid\_19 #mentalhealth https://t.co/owfiox0ek8",
2. 'how to protect your mental health in the wake of covid-19 disclaimer: i may receive compensation from products or services purchased through links in this post. https://t.co/yvbirdonjb #mentalhealth',
3. '"an increase of 97% of teenagers calling helplines, suffering anxiety, depression over covid-19 suggests some through genuine fear ill equipped to cope with an immediate return to school! ultimately their education important but not at the expense of their mental health!"\ndiana https://t.co/ovbsu5ckfv',
4. 'psychiatrists have warned that the country might see an unaccounted rise in the number of people suffering from psychological stress and other mental health issues due to the increasing fear of covid-19 spread and months-long lockdown imposed in a bid ... https://t.co/oghr4dvvyf',
5. 'defeating the mental health challenges of the coronavirus, the despair, is nearly as important as defeating the physical dangers of the virus.”\n\n184,000 dead https://t.co/ugym3zizv1',
6. 'some concerning, if not unexpected, findings in this @thersaorg study of key workers during #covid19. many #socialcare workers report concerns about maintaining mental health, with women and younger people particularly affected. https://t.co/flpleoenu0 https://t.co/vrb079d7f8',
7. 'the covid-19 pandemic has been tough for everyone – mentally and physically.\n\nthis is why the palaszczuk government has invested $74.5 million in mental health since the start of covid-19.\n\ntake a moment to check in on your mates and yourself.\n\nwe are all in this together. https://t.co/ghzyjjupey',
8. 'piers corbyn says on @gmb says covid-19 is a "psychological instrument" and "fiction" to boost international pharmaceutical corps. i think he needs mental health help. what\'s dangerous is many gen-z and conspiracy theorists will take his words as gospel and drive up c19 rates',
9. 'the covid-19 pandemic has impacted on nearly everyone’s mental health. for some people, the difficulties that have been faced have led them to thoughts about taking their own life. for anyone struggling, help\nis always available at: https://t.co/qutonyupsh',
10. "covid-19: the effect of lockdown on teenagers’ mental health isn't all bad https://t.co/ffuoucfjpl via @wef #covid19 #mentalhealth",
11. "alaskans are struggling with mental health during the pandemic, but they're also finding some ...: as the covid-19 pandemic wears on, it's not surprising that many alaskans are feeling less than ok, said vanessa meade, a social worker and\xa0... https://t.co/fyoktyvejo",
12. 'concerns about the mental health &amp; wellbeing of adolescents were growing even before #covid19 &amp; the recession; vulnerabilities may be heightened as a consequence of the pandemic, lockdown &amp; widespread uncertainty about the future, @econobservatory https://t.co/1lc43yrwow https://t.co/cmrzczhi66',
13. 'in @who global pulse survey, 90% of countries report disruptions to essential health services since #covid19 pandemic https://t.co/g46djfnido. how have you seen mental health services disrupted?',
14. 'anxiety management sessions for anyone struggling due to covid-19, led by a fully qualified &amp; experienced mental health nurse.\n\ncovid-19 anxiety management (30 mins) - (£20.00) - https://t.co/4qphspxxau\n\ncovid-19 anxiety management (60 mins) - (£40.00) - https://t.co/zmy1onrgbr https://t.co/1wkrnlcmfr',
15. '@jumaanewilliams @uft the pale pink communities are in white neighborhoods. black families must not be forced to choose btwn a diploma &amp; a death certificate. open when we can invest in mental health professionals 2 help black children handle the deaths from covid19 plus being policed while learning.',
16. '@johndickenssw @nickgibbuk and who is going to provide all the extra emotional &amp; mental health support stemming from the covid-19 crisis\n\nstaff flitting between bubbles will be quarantined and need cover\n\nit’s like @nickgibbuk doesn’t understand the costs or what’s involved in running a schools',
17. 'american isolation: mental health during covid » https://t.co/tfhujyaw16\n\n#coronavirus #wuhanvirus #lockdown https://t.co/eatmkvx1hv',
18. '@electricdyls @girlfreddy @thehill the cost in mental health and untreated/delayed treatment, not to mention the increase in substance abuse, destroyed businesses/livelihoods due to the shutdown far outweighs the actual #covid19 death toll.',
19. 'the impact of the covid-19 pandemic on mental health in the general population: a comparison between germany and the uk https://t.co/7umioqgqgo #medrxiv',
20. 'isolated, anxious and unable to share: the coronavirus pandemic has brought about a concerning combination of stressors that journalists must deal with. \n\nin our last podcast, @hannahstorm6 talks about mental health in the newsroom during covid-19\n\nhttps://t.co/l0qplzljna'

## Economic loss:

1. 'sweden has to date had about 80,000 cases\xa0of covid-19, though this is likely to be an underestimate. about 5,700 people have died. this would equate to about 15,000 lives lost in aust.\neven with lighter lockdowns, sweden has suffered big economic losses.\nhttps://t.co/pex42vtebo https://t.co/6zrgzb0dlh https://t.co/vczsiwq6ei',
2. 'sadly instead of treating the root causes of #covid19 depression (economic loss, pop health chaos) the researcher assume people are “mentally ill”\n\ntheir response makes sense to the current situation. \n\nthey aren’t short of dopamine and need an rx they need $$ in their pockets. https://t.co/aeo6aaztum',
3. "@chane\_leighbee @keke\_makhetha @citypowerjhb @citypower isn't on esp. that's #eskom. cp is just farkled today and not telling us why or when we'll get electricity again. adding to the massive economic losses of #covid19.",
4. 'what poor form from @scottmorrisonmp to be harping about economic losses which will occur due to the extended and necessary victorian lockdowns. he sounds like @realdonaldtrump or tony abbott , while criticising andrews for the necessary actions to bring covid19 under control.',
5. 'due to the coronavirus, boise state is expected to experience an economic loss during the academic school year of 2020-2021. read more here: https://t.co/k8iouf0bfs #bsunews2u https://t.co/gjhmpw2vr4',
6. '1/29 memo laid out in detail the potential risk of the coronavirus pandemic as many as 1/2 a million deaths &amp; trillions of $ &amp; economic losses! trump doesn’t care !\n\n#onev1 #demcast \n\nhe could have seen what was coming: behind trump’s failure on the virus https://t.co/2acud3u3ay',
7. 'the vaccine will not help: the expert estimated the global economic losses from coronavirus\nhttps://t.co/qwyb7mkh9h https://t.co/2b6tugdgdr',
8. 'the vaccine will not help: the expert estimated the global economic losses from coronavirus\nhttps://t.co/qwyb7mkh9h https://t.co/ou8nwit21c',
9. 'scientists estimated economic losses related to covid-19 pandemic - https://t.co/hiyzsvmmwh https://t.co/jhkgngdwbk',
10. '@rorycooper @davidfrum reuters: disruption to schooling stemming from the covid-19 epidemic will cause a skill loss that could result in a 1.5% drop in global economic output for the rest of this century, the oecd estimated. for the us, that would represent economic loss of $15.3 trillion, per the oecd',
11. 'in europe, 400,000 deaths per year are caused by air pollution. for #covid19 such a balance between deaths and economic loss is considered unacceptable. in all other spheres of society we do this all the time.\nhttps://t.co/rwnu7kc9de',
12. 'facts:\ncovid-19 originated in china stopping india for 68-days leading to the severe economic loss.\nchina is behind the increased border incidents involving pak.\nattempts to occupy ladakh region is to weaken us.\nalas! some people still demanding the reasons for their entry!!!',
13. '20200908: ap: skills lost due to covid-19 school closures will hit economic output for generations: oecd ["u.s. is estimated to take an economic loss of $15.3t" https://t.co/eq23k8lnqb',
14. 'covid-19 has impacted both small and large businesses across the uk with reduced trading resulting in economic losses. discover how #clbils can ease the strain on cash flow and help firms to thrive again: https://t.co/sobx60qmgg https://t.co/6ncsqtvkid',
15. '"while men make up 68% of covid-19 cases, women are bearing a higher burden of mobility restrictions, economic loss, and restricted access to services," finds @care\_nigeria. #gender #covid\_19 #impact / https://t.co/kxedz7bape',
16. 'economic losses in the #pandemic are heavy for women, especially those with low incomes who experience intersecting inequalities. read stimulating #genderequality: a gba+ approach to economic recovery: https://t.co/hnd5af1xm0 #covid19 #cdnpoli @o\_n\_n @ccpa https://t.co/nuhydi5jcq',
17. '@nytimes article on our @oecdeduskills paper on the economic cost of learning loss due to #covid19 school closures. for the us alone, an economic loss of 15.3 bn$ for the rest of the century. https://t.co/ehtmdrmfqx',
18. '"one of the major impacts of #covid19 that has emerged is economic loss and depravity of the most vulnerable – women and girls."@worldvisionusa is working with @usaidsaveslives to mitigate those losses in #bangladesh. read more: https://t.co/5wv6nrfl4u https://t.co/kccnyw6ssx',
19. 'india reaching 97000 cases per day. this is that achievement we never wanted. job loss, economic loss, sluggish growth. 2021 will become a recovery year\n\n#coronavirus #covid19 #coronavirusvaccine #coronapandemic #corona #covid19uk #covid\_19 #indiafightscorona \n@rahulkanwal',
20. "@realdonaldtrump #murdererinchieftrump didn't want the people to panic about the #coronavirus because #failuretrump panicked about his possible economic loss (stocks, donors, property values) <https://t.co/1pxwp2cjwr>"

# Group 01 Themes in T2:

## Travels: (Keywords used for filtration is Travels)

1. 'new philippines covid-19 rules: pcr test scrapped for domestic travel https://t.co/zkbdswwmpy',
2. '#breakingtravelnews #etn #governmentandpublicsectortourismnews united states address to the people of tanzania on covid-19: tanzania was urged by the us to review evidence on covid-19 shots. the unites states urged tanzania on friday to review evidence… https://t.co/vfjpf12hxa',
3. 'help reduce the spike in covid-19 infections, follow the safety and health advice to protect ourselves, family and fellow commuters. #wearamask\xa0 throughout your journey. ensure windows of train are open, sanitize or wash your hands and avoid travelling if you do not feel well https://t.co/doq6yp98pp',
4. 'stargazing in hong kong: where to view the night sky, and how for one family it became a new hobby in the covid-19 era https://t.co/cfafaemlce #travel',
5. "johor mentri besar datuk hasni mohammad said the reopening of the malaysia-singapore border in johor and the green travel bubble initiative can be considered upon the completion of malaysia's national covid-19 immunisation programme.\n\nhttps://t.co/ocvef85uol",
6. 'portuguese pm hopes eu covid-19 vaccine passport in place by summer as bloc split on travel restart — rt world\xa0news https://t.co/gpxaww7v7r',
7. 'please note: as businesses monitor covid-19 conditions and regulations, many of our wonderful partners have limited operations or continue to be closed temporarily. for establishment-specific information, please follow our links to reach partner websites. #travelsafely https://t.co/o91i9idk4x',
8. 'the nightly news led with pete buttigieg dropping out of the presidential race. the coronavirus got a lot of mention, however. although much of the focus was on travel, suggesting the virus was more widespread outside the us than within. we now know it was widespread within.',
9. "would be interested to read thoughts on the question:\nhow lawful are roadside police checkpoints user to check people's travel for breach of coronavirus regulations?",
10. 'bahrain has offered formula 1 personnel and team members voluntary covid-19 vaccinations when they travel to the kingdom later this month for pre-season testing and the bahrain grand prix. \nhttps://t.co/djckch7vqy',
11. 'the 50 most deadliest covid-19 countries read more skip - eturbonews | trends | travel news https://t.co/phsyne52ax',
12. 'hey!! sooo have you ever heard of this one ? : 14 best cafes in british columbia for post covid-19 visit 2020 https://t.co/komxugpwy7 #vancouver #britishcolumbia #victoria #richmond #canada #travel',
13. "#news: #dubai is 'ready and prepared' for post-#coronavirus, post-#ramadan #tourism jump\n\n#atlantis boss says dubai has a head start ahead of other #travel destinations as the world reopens following covid-19 lockdowns. \n\nfollow: @instadubaivisa 👈👈\n--\n#dubaivisa #uae #dubainews https://t.co/fr48gzcb1k",
14. "you can still spread covid-19 to family, friends, and community during and after travel even if you're vaccinated. don't spread the variants.",
15. 'help reduce the spike in covid-19 infections, follow the safety and health advice to protect ourselves, family and fellow commuters. #wearamask\xa0 throughout your journey. ensure windows of train are open, sanitize or wash your hands and avoid travelling if you do not feel well https://t.co/pippdikibg',
16. 'happy days: queensland removes all covid-19 hotspots #travel #domestictravel #domestictourism #borders #holidayherethisyear #nomorehotspots #victoria #queensland https://t.co/k9ytst7hxw',
17. 'in your latest #familybusiness roundup:\n🇮🇹 #illycaffe brews non-family investment for us push\n🇪🇸 #meliahotels ready for travel trade recovery after covid-19 losses\n🇱🇺 covid-19 rebound ‘the right moment’ for #arcelormittal succession https://t.co/hicbfonkpc https://t.co/gmqzvqnqr6',
18. 'in your latest #familybusiness roundup:\n🇮🇹 #illycaffe brews non-family investment for us push\n🇪🇸 #meliahotels ready for travel trade recovery after covid-19 losses\n🇱🇺 covid-19 rebound ‘the right moment’ for #arcelormittal succession https://t.co/xwevdbgck9 https://t.co/hlzmdj9z9p',
19. 'lets all remember who demanded these quarantine hotels\n\nford said the province would support travellers in need of a quarantining space with the use of #covid19 hotels, which he said are “ready to go.”\xa0while ford has vowed he will soon test travellers. \nhttps://t.co/zv21fupmaw https://t.co/cnclmokt1w',
20. 'help reduce the spike in covid-19 infections, follow the safety and health advice to protect ourselves, family and fellow commuters. #wearamask\xa0 throughout your journey. ensure windows of train are open, sanitize or wash your hands and avoid travelling if you do not feel well <https://t.co/zfedr6wzec>'

## vaccine safety and efficacy: (Keywords used for filtration is “vaccine safety| vaccine efficacy”)

1. 'an rct on the efficacy of ayurvedic treatment on asymptomatic covid-19 patients https://t.co/r2ra7qgv6e via @edzardernst',
2. '#pmmodi gets himself inoculated with #covaxin even before its phase iii results are published....this is more of a symbolic message to those speculating about its efficacy in tackling #covid19 🦠💉🇮🇳 https://t.co/yejvnygq01',
3. "‘..some of the world's most outspoken, heavily censored medical professionals to express their views on the validity of the global pandemic, the safety &amp; efficacy of covid-19 vaccines, masks, etc., so readily integrated into our everyday lives.’\n\n https://t.co/3odmqwxzdd",
4. 'new article: results of a randomized trial testing the efficacy of tele-savvy, an online synchronous/asynchronous psychoeducation program for family caregivers of persons living with dementia https://t.co/sx46v6icpx #coronavirus #covid19 #2019ncov https://t.co/oib6pgeuxw',
5. '#question = drs freely state that patient reactions will help to develop tweaks for vaccine --\nso why do they say it is #safe ?? \n\nyour covid-19 vaccine safety questions, answered by experts https://t.co/y6ojwkuppd',
6. '#medicinehealth pzifer vs. moderna vs johnson &amp; johnson covid-19 vaccines efficacy, distribution: what should you get? https://t.co/zxmhq15efk https://t.co/qtm0ovnkmp',
7. "ghanaian president assures people of covid-19 vaccine safety\nghanaian president nana addo dankwa akufo-addo on sunday assured ghanaians of the safety of the covid-19 vaccine to be used for his country's mass vaccination campaign.\nhttps://t.co/nx2cs9esbo https://t.co/uwyfadlx7r",
8. 'acip shies away from covid-19 vaccine comparative efficacy and safety evaluations\nhttps://t.co/zoyopvrboc #pharmascrip',
9. 'your covid-19 vaccine safety questions, answered by experts https://t.co/76h92jgyhv',
10. "@steber232 @mlevitt\_np2013 i think a demo of how air (or paint, as someone demonstrated) moves around masks shows they probably don't do much to stop aerosolized particles the size of covid19, no?\ndo you have any stronger evidence of their efficacy? seems controversial at best.",
11. '“the analysis of pfizer’s first-dose efficacy is similar to the moderna covid-19 vaccine, mrna-1273, which was reported to be 92.1%” https://t.co/gbj2rkedi0',
12. 'the efficacy of covid19 vaccines is linked to good\xa0nutrition https://t.co/wkfbqypdbt',
13. 'an rct on the efficacy of ayurvedic treatment on asymptomatic covid-19 patients https://t.co/r2ra7qgv6e via @edzardernst',
14. '‘coincidence that pm modi received covaxin’: owaisi raises questions over covishield’s efficacy: hi india aimim leader asaduddin owaisi has questioned the efficacy of covishield, one of the two anti-coronavirus vaccines approved… https://t.co/tmyxlvsg72 | https://t.co/vhb7ekelqw https://t.co/aubzjk6qny',
15. 'a #mustread from dr @shoba\_suri . \n\n#healthexpress | the efficacy of covid19 vaccines is linked to good nutrition https://t.co/njp7aeboyv via @orfonline',
16. 'acip shies away from covid-19 vaccine comparative efficacy and safety\xa0evaluations https://t.co/z69bsac4sr',
17. 'more on #vaccine efficacy: #infection vs #transmission! 🧐#sarscov2 #covid19 https://t.co/txlxalhsj8',
18. 'the efficacy of covid19 vaccines is linked to good nutrition - observer research foundation https://t.co/5m1zlydmz1',
19. 'acip shies away from covid-19 vaccine comparative efficacy and safety\xa0evaluations https://t.co/ymykitzgaj',
20. 'day 2 of #cdc #acip today at 11amet, with questions about vaccine safety, single dose of $pfe $mrna #covid19 #vaccines, emerging #sarscov2 variants, etc &amp; likely more discussion on $jnj, too.\nhttps://t.co/mpgxh20kvm \n\nhttps://t.co/j0vphxnuac\n\nhttps://t.co/pbyvymyech'

## Released of Lockdown: (Keywords used for filtration is “release of lockdown| open lockdown| lockdown open | lockdown)

1. '#saturdaythoughts #covidー19 #coronavirus# lockdown best way to beat lockdown. improve your math skills! free online #math #tutoring at https://t.co/plnsngyjmu',
2. 'joy president cyril ramaphosa addresses south africans, relaxes covid-19 lockdown (video) &gt;&gt;&gt; https://t.co/5jwfumuce1',
3. 'south africa moves into \'level 1\' alert after dramatic drop in covid-19 case numbers\n\nsouth africa will move into the lowest \'alert level-1\' lockdown from monday, further relaxing restrictions on movement, economic activities and gatherings, after a "dra… https://t.co/wiqglgoqd9 https://t.co/im6ru3oxng',
4. '12,000 licensed venues close their doors for good amid covid-19 lockdown https://t.co/kf260hh1e7',
5. '12,000 licensed venues close their doors for good amid covid-19 lockdown https://t.co/dgq5rrpowa',
6. "then why can't same b followed by all states?\n@pmoindia \nas lockdown was followed by all with same guidelines initially\nnow why different policy to get vaccination?\ndoes #covid19 reacts differently for paid&amp;non paid vaccination?🤔😛\n@cmomaharashtra hope u will it thought for sure https://t.co/7rxycdvi4u",
7. 'new post: inside extra-judicial killings by police officers enforcing covid-19 lockdown https://t.co/o2itqhbvch retweet with love',
8. 'the impact of covid-19 induced lockdown on mutorahuku irrigation scheme. kindly share, like and click on the link bellow and enjoy. https://t.co/fqdztaxf37 @syngentazw @ifad @zilan2015 @molafwrr\_zim @my\_greenlands @growtechh @zfu\_official @talking\_farming @freedommazwi @agrinews3',
9. 'searching for best termite treatment in bangalore?? call 9941229005, 9845640219 and 9066885858 or visit https://t.co/jwilaystht…\n#pest #pestcontrol #rodents #termites #lizards #woodborer #bedbugs #mice #ants #flies #cockroaches #bugs #pestcontrol #coronavirus #bangalorelockdown https://t.co/ipq2nqkpfp',
10. "it's been a week since the gov announced the roadmap out of lockdown &amp; we all excited for freedom! 💪\n\nmake sure you are prepared to keep your staff &amp; customers safe from transmission of #covid19 🦠\n\n👉screens guards in stock: https://t.co/4mfqk11ntl\n\n#ukmanufacturing #lockdown https://t.co/degjtsa69b",
11. 'we have plenty of resources and support materials to help you prepare for re-opening: https://t.co/dkcnfrbcwg\n\n#deepcleaning #cleaning #disinfection #reopening #covid19 #roadmap #postlockdown #publichealth #hygiene #infectionprevention #deepclean #cleaningchemicals #manufacturing https://t.co/x1vgy3elpg',
12. '12,000 licensed venues close their doors for good amid covid-19 lockdown https://t.co/0yclsw7ure',
13. 'airbnb results during pandemic hints at path for post-lockdown success #airbnb #financialresults #expedia #hotels #accomodation #travel #holidays #tourism #staycation #vacations #lockdown #covid19 \n\nhttps://t.co/danu0phhxy',
14. 'we have a range of help and support for you in lockdown - like our top tips fact sheet on our website\n\nsearch "coronavirus" on our website at https://t.co/90naawzdxu\n\nplease stay safe. \n\n#keto #epilepsy #ketogenicdiet #ketodiet #medicalketodiet https://t.co/jwbq6sm3rl',
15. 'you can still move home in this #lockdown 🏡\n\nbut, there are a number of safety rules that must be followed - not just wearing a face mask alone\n\n👇stay in the know\nhttps://t.co/eddifzik3z\n\n#covid19 #pandemic #coronavirus',
16. 'bent @uklabour #sandwell council say there has been no real lockdown in the #covid19 hotspot. now this from a local fb page (and the bid has been encouraging folk to visit #westbrom) and where are @sandwellpolice ? @jamieb\_star @phe\_uk @matthancock @iangreenwmp @blackcountry https://t.co/u4deyucf5e',
17. 'first year of activity summarised by @ukparliament suburban taskforce, highlighting potential for suburbs to be transformed to support local workers and communities during post-#covid19 lockdown easing. https://t.co/0mzhu6haob #facman https://t.co/tzdjwqpkxv',
18. 'we were pleased to secure this interview for dr naomi forrester-soto on @lbc this weekend, speaking to @davidlammy about the roadmap out of lockdown and #covid19 variants. listen here from 00:51:30 ⬇️https://t.co/rpzir89nqo',
19. "meerkats in zoos responded positively but cautiously to the sudden return of people after the first #covid19 lockdown ended, new @ntu\_ares' research suggests - widespread coverage today, including in the times, daily telegraph and mail online https://t.co/lvmlkhbrfo",
20. '@morethanmysle peter❤️🙏🏼take the utmost care like never before-you know how stressful it is for you already but we all love you so much-it’s so easy to slip-up on self care. i make sure i put enough cash on the side for a pedicure no matter what-except in covid-19 lockdown #selfcareguiltfree <https://t.co/bmd0uwxja9>'

# Group 02 Themes in T1:

## Hopeful:

1. 'pilot program aimed to allow more n.b. seniors to live at home hopes to expand - [coronavirus], source: global news - https://t.co/find0jqrnw https://t.co/2wcpyu600z',
2. 'consumeraffairs: coronavirus update: hopeful vaccine news, recognizing an important symptom https://t.co/wt33ujmgyi https://t.co/we7bia2vr0',
3. "areal bliw to the city. newport live were doing so well before the #coronavirus. let's hope for light at the end of the tunnel and soon.\n\nnewport live places 97 staff at risk of redundancy https://t.co/yx2amci9pb",
4. "coronavirus us:\n\n“moderna's coronavirus vaccine will not be ready by election day: ceo dashes trump's hopes for a shot as says the firm won't seek fda approval until november 25.”\n https://t.co/iqqtnckzqp",
5. '@electtuman @repkathleenrice govcuomo’s such a smart lawyer. if he creates any “doubt” or “confusion” over what happened in nhs,this will never be resolved. i hope families can get the information they need 2 get closure. may never happen, since now cuomo says “no covid19 infected patients were sent to nhs”.',
6. "more: governor brian kemp's new coronavirus executive order gives students more time to turn in a sat or act score to qualify for the hope or zell miller scholarships. #gapol\n\nread the executive order: https://t.co/sqoxmsjm4s\n\n(3/3) https://t.co/qunrfjnvrh",
7. "trump will never back out of the debates because he loves free network tv time and because he'll likely use one of the debates to announce a rush vaccine that will destroy any hope of an effective roll out of a covid-19 vaccine.\nhttps://t.co/c1oi7byxrk",
8. ': ‘provocative results’ boost hopes of antibody treatment for covid-19 https://t.co/kvd31greem',
9. 'hope in the worldwide storm! full video -&gt; https://t.co/hhh9lay9mb #30days30videos #messagetochristians #musiclov3rz #ww #philippeans1v12 #coronavirus #covid19 https://t.co/accaw5qeb0',
10. "no problem it's all good thank you for following me i only follow people that are mature and don't i think that name-calling is the best way to get their point across. stay safe and i hope alabama continues to move forward in the direction away from covid-19 https://t.co/3mr2k205s5",
11. "hydroxychloroquine didn't prevent covid-19 among health care workers in new study - cnn: the malaria drug hydroxychloroquine -- which president trump said he took in the hope of warding off covid-19 -- was found not to prevent infections among volunteers… https://t.co/iqfpdh6gbx https://t.co/mxn3kgepxe",
12. '@unitedwayindia @nofoodwaste thank you for your support and partnership in serving meals and hope to families in need through food banking during #covid19. #servinghope',
13. '“they made a list of more than 30 celebrities...to appear in their ad campaign to "inspire hope" about #coronavirus, but they ended up with only #dennisquaid, cece winans and hasidic singer shulem lemmer” #covid19 #ppeforall https://t.co/4kmpp8qmgc',
14. '#thereidout currently, i have 3 cousins who have #covid19--an immediate family who is presently under quarantine. a fourth member of that immediate family has tested negative, i hope it stays that way! \n\naround in april, 5 other cousins in a different state had #covid19',
15. 'a thread on #ffce testing to stop #covid19. at this point it may just be our only hope (not even a vaccine) https://t.co/4ypcigx4vk',
16. "pennsylvania's top health official has near daily conversations about the progress on a series of covid-19 vaccines with federal officials and is hopeful that a limited distribution of at least one vaccine will be ready by the end of 2020. https://t.co/inbkzmbdiu",
17. '#thenightprayer:\ni will say of the lord, “he is my refuge and my fortress, my god, in whom i trust.”...i will not fear the terror of night, nor the arrow that flies by day...the lord is my refuge.\n#pray 4 #homeless #election2020 #coronavirus #usa #france #haití #nyc\n#jesus #hope',
18. "@vickyisgrateful @geoffmotchan i hope they all get coronavirus. it will make biden's job a lot easier.",
19. 'i hope that bell-end and spouse get fined the maximum - each. this was in the most arrogant town on #longisland of course, where people claim "i don\'t believe in masks" and then get sick. i don\'t wish they\'d get ill. i wish they\'d get compassionate. #covid19 #newyork/2',
20. '@fusunbaumann hope it goes ahead ping @ctzebra #lungtransplant #covid19'

## Precautionary measurements:

1. "#blacktwitter \n\nbut people like @icecube don't want talk about that. nobody does, unless a loved one from your family dies from covid19.\n\nwe're dying out here and our deaths are being brushed under the rug by people like @icecube and other people huge platforms. https://t.co/vozyyenqxs",
2. 'most of the activites are opening,hotels and restaurants are also opening but now citizens shall take more care wear masks,avoid crowding,maintain social distancing as corona has not ended only restrictions have. be safe.. #india #pune #covid19',
3. 'masks-for-all for #covid19 not based on sound data \n\ncloth #masks &amp; face coverings are likely to have limited impact because they have minimal ability to prevent the emission &amp; inhalation of small particles\n\n#cdnpoli #uspolitics\nhttps://t.co/kp4omncmpx'
4. '#thereidout currently, i have 3 cousins who have #covid19--an immediate family who is presently under quarantine. a fourth member of that immediate family has tested negative, i hope it stays that way! \n\naround in april, 5 other cousins in a different state had #covid19',
5. "be a patriot\n\ntesting &amp; mitigation &amp; distancing &amp; face masks are key \n\nbe 6' apart or 6' below \n\n ask americans to stay inside at home for 12 to 16 weeks to slow the spread of the corona virus &amp; prevent death of mother. father, sister, brother, aunts, uncles...\n\n be a hero https://t.co/cint6jsahs",
6. "moderna's mrna vaccine produced good antibody titers in older adults, even higher than in middle-aged adults. those antibodies were neutralizing, too. but this still falls short of actually preventing covid-19 or moderating symptoms. https://t.co/8zjkcqeg4z",
7. "be a patriot\n\ntesting &amp; mitigation &amp; distancing &amp; face masks are key \n\nbe 6' apart or 6' below \n\n ask americans to stay inside at home for 12 to 16 weeks to slow the spread of the corona virus &amp; prevent death of mother. father, sister, brother, aunts, uncles...\n\n be a hero https://t.co/u2lowam5my",
8. "be a patriot\n\ntesting &amp; mitigation &amp; distancing &amp; face masks are key \n\nbe 6' apart or 6' below \n\n ask americans to stay inside at home for 12 to 16 weeks to slow the spread of the corona virus &amp; prevent death of mother. father, sister, brother, aunts, uncles...\n\n be a hero https://t.co/3x0mydgrug",
9. 'are we surprised??? lol\ntrump-touted hydroxychloroquine shows no benefit in covid-19 prevention: study\nhttps://t.co/7qfloimxfu',
10. "be a patriot\n\ntesting &amp; mitigation &amp; distancing &amp; face masks are key \n\nbe 6' apart or 6' below \n\n ask americans to stay inside at home for 12 to 16 weeks to slow the spread of the corona virus &amp; prevent death of mother. father, sister, brother, aunts, uncles...\n\n be a hero https://t.co/ecr2ibczqg",
11. 'nevertheless, along that same line of thought when did the prime minister consult the people of saint lucia who he represents on the covid-19 prevention and control bill?',
12. 'zachary black, 27, firstborn son, beloved family member, langhorne, pa – died of #covid19 on september 27, 2020. born with down’s syndrome. associate member of the newportville fire company, where he will be missed: “... always brought a smile and laugh.”\nhttps://t.co/s8up8zllqd https://t.co/k4kczhpysk',
13. 'hydroxychloroquine didn’t prevent covid-19 among health care workers in new\xa0study https://t.co/0up3w2algq',
14. '@intlcarly @janicedean not only did cuomo mandate covid 19 n2 nursing homes that were housing the known most vulnerable 2 fatality from covid19; but, he isolated those innocents from their loved ones &amp; they died alone☠️ he wld not even allow funerals 2 b held by friends &amp; family to say a final goodbye.',
15. "hydroxychloroquine didn't prevent covid-19 among health care workers in new study #ui #health https://t.co/pu60iq4ii1",
16. '#political #partisanship influences behavioral responses to governors’ recommendations for #covid19 prevention in the #us. state government leaders’ recommendations were more effective in reducing mobility in #democratic-leaning counties than in #republic…https://t.co/rxlgjg1g5t',
17. "be a patriot\n\ntesting &amp; mitigation &amp; distancing &amp; face masks are key \n\nbe 6' apart or 6' below \n\n ask americans to stay inside at home for 12 to 16 weeks to slow the spread of the corona virus &amp; prevent death of mother. father, sister, brother, aunts, uncles...\n\n be a hero https://t.co/acsnbdvf5s",
18. 'preventing and responding to covid-19 on college campuses https://t.co/zuu0zhofoc via @jama\_current part of @jamanetwork',
19. "hydroxychloroquine didn't prevent covid-19 among health care workers in new study(https://t.co/1poreqozka) via @cnn\_co\_jp",
20. '‘everybody dies’: musk says neither he nor his family will take covid-19 vaccine, blasts bill gates as ‘knucklehead’ — rt world news <https://t.co/t6uqdm3uvq>'

## Charity:

1. 'we are proud to work with partners like @urbaninstitute to provide guidance to homelessness systems on how to use #caresact funds to achieve an equitable #covid19 homelessness response',
2. 'its fun to remember this when trumpublicans call this it the "china virus" \n#covid19 #coronavirus https://t.co/pvcyklizge',
3. '"i agree that as the govt was insistent on it happening that therefore the cost of making schools fully operational &amp; covid-19 friendly being their responsibilty to pay for &amp; not the schools who will find their funding ability being signfificantly stretched in doing so!"\ndiana https://t.co/dehxavp3nl',
4. 'huge thanks to #cumbria #ahpwainwrights\n\na fantastic fundraising challenge raising money for @cumbriacf #covid19 fund\n\nlook forward to seeing your plans for next year 🚶🏼\u200d♂️ 🏊\u200d♀️ \n\n@weahps @suzannerastrick @janet\_folland @steve197237 @alanhinkes @vernonlinda @bbc\_cumbria https://t.co/4aifqdc9m9',
5. "from #identities covid-19 blog series: 'functioning, equitable and just cities: leveraging the #pandemic as a positive' by anjali karol mohan:\n\nhttps://t.co/os0vxu7hms\n\n@nasarmeer\n \n@routledge\_socio\n #covid19 #migration #migrants https://t.co/8vchdfv9ke",
6. "crowd 1\n\nyour recommended next step to financial freedom.\n\n=&gt; https://t.co/8c0hpm814y &lt;=\n\n&gt; don't miss out on this great opportunity.\n\n#covid19\n#digital\n#crowdfunding\n#friends\n#ico https://t.co/ma4x0mnk3e",
7. 'through our emergency funding we’ve supported #heritage organisations across the uk survive through #covid19.\n\nfantastic to see the impact here in #yorkshire 👇🏼🌿🐾 https://t.co/1ikggpzgpi',
8. "the coronavirus-hit tourism sector of the country got a much-needed boost during the past week as tourists swarmed in from all over the country to khyber pakhtunkhwa's cooler tourist resorts to have fun. https://t.co/rbbwqdcwxc",
9. 'funding secured for covid-19 vaccine trials https://t.co/2bqyi2jqh2 https://t.co/u3vthmz2le',
10. "📢 special covid-19 grant scheme now open!\nthe sseac covid-19 grant scheme supports engagement with southeast asia through funding support for research and language study. we've got 4 types of grants available - check it out and apply by 11 september 2020: https://t.co/7vct7ktymh",
11. 'so @davipton had to self isolate from work in march due to #covid19 he had #openheart surgery on the 18th june nearly 3 months after he is returning to work today for 3 hours absolute hero love you babe have fun and be careful xx #notallsuperheroswearcapes 🦸\u200d♂️❤ https://t.co/1zu41xlvzq',
12. 'how to feel safe in uncertainty - #personalgrowth #covid19 https://t.co/9uvmbe9dfw @funficient \n\nwhen we look back to 2020 the one word that will probably be one of the most used words of the year would be “safe”. \n\nhttps://t.co/afissuwyr8 https://t.co/8qk80djnvr',
13. '#tv #advertising #media #covid19 \n\n:h1 20 results today at my old friends, @wearestv \n:fascinating to see trajectory in advertising % growth rates, ytd\n:#stv like most commercial telly is mainly ad funded\nq1 -1%\napril-42%\nmay-39%\njune-33%\njuly-7%\naug+1%\n:it’s getting better 🔼',
14. "https://t.co/fowqw8cjfc uber price fixing class action award still fares despite arbitrator's unfunny joke https://t.co/fowqw8cjfc #thelegallowdown #law #court #lawyer #lawfirm #justice #legal #case #ip #scotus #tort #covid19 #cybersecurity #technology #ai …",
15. 'prints for wildlife – 100 photographers, one cause - a print fundraiser to spread hope for nature in times of covid-19 https://t.co/ho5mtjhdua',
16. 'kara gillespie asked the scottish government to provide funding for clear face masks so she can understand her teachers and friends at school\n\n#coronavirus #disability #schools https://t.co/d5exixrfot',
17. "#rt @labourpress: rt @skynews: 'the govt have been very quick to say they will support schools to make it safe and they haven't come up with the money.'\n\n@tobyperkinsmp claims the govt has not made sufficient funds available to pay for #covid19 safety me… https://t.co/u73fdfsi6j",
18. "this week is professional care worker's week organised by the care workers' charity @careworkersfund to celebrate the amazing staff in the care sector. find out how the @ahsnnetwork has been supporting care workers during #covid19: https://t.co/dwneakyibe #randr #pcwweek20 https://t.co/7av7ypqtcn",
19. 'we are pleased to have new @esrc funding to support changing research practice for #covid19. project led by @m\_nind involves rapid evidence review, knowledge exchange workshops &amp; #copro of resources to support the research community.',
20. 'montgomery – governor kay ivey on monday awarded $10 million of the coronavirus relief fund for a state-wide program to assist alabama timber owners impacted by the covid-19 pandemic. https://t.co/tmxoagtaar'.

# Group 02 themes in T2:

## side effect of the vaccine: (keywords used for filtration “side effect”)

1. 'anutin free of covid vaccine side effect https://t.co/ufr5lz282f #thailand #coronavirus #covid19 https://t.co/47pzxkketh',
2. '@reuters no one vaccine can be side-effect free. most vaccines deliver \'reactogenic\' side-effects...\n\nunderstand the side effects of covid-19 vaccines and messages from volunteers "worst-case scenario" \nhttps://t.co/patlamvfto',
3. '@globalnews the reasons why second dose of covid-19 vaccine has worse side effects\nhttps://t.co/tiw5zdq574',
4. 'singapore – senior citizens getting the covid-19 vaccine are saying they took the right decision, dismissing talk of possible side effects.\n\nhttps://t.co/a3dhi7y69j https://t.co/8j7ro43kxu',
5. "@truthsp73957317 @patresister besides the wheelchair you probably spend some time of day's hours on your bed, right? so lying flat on your back you can make some exercise involving the stomach muscles, arms and legs. that's what i'm doing for 2 months. covid-19 lock down has terrible side effects - fat belly.",
6. 'moderna’s coronavirus vaccine side effects are severe, but worth it: cdc\xa0study https://t.co/llz0vugjch',
7. '#health pfizer vs moderna: comparing two covid-19 vaccines from side effects to storage requirements https://t.co/ralqs4j7ng https://t.co/hpqf6pywi8',
8. 'tag - tga collecting covid-19 vaccine side effect reports https://t.co/klivpxzcgv',
9. '@waynemccurrie @zar\_chez because of covid19 and the pandemic . lockdowns were a side effect',
10. 'worrying consequence of vic lockdown - #all\_health\_fitness\_tips - new research has revealed a concerning potential side effect of the huge changes to medical care brought about by victoria’s coronavirus ... - https://t.co/agjlwmla9s https://t.co/wmy95zuoy1',
11. 'post-lockdown cancer spike predicted in victoria - #all\_health\_fitness\_tips - new research has revealed a concerning potential side effect of the huge changes to medical care brought about by victoria’s coronavirus ... - https://t.co/kl6lwsvakm https://t.co/ouzupewp4x',
12. '#kenya: moh to monitor covid-19 vaccinees for any adverse side effects – dr. akhwale https://t.co/mpodm70anl',
13. '#covid19 #variants: #evolution in action.\n#mutations in #coronavirus can be neutral for humans but some may be worse. selection pressures:\n1 better transmission / reproduction\n2 evading #vaccines effects - antibodies\n\nhost lethality is just a side effect\n\nhttps://t.co/3m36uwnyov',
14. '319 thais injected with sinovac vaccine on sunday, no severe side effects case yet https://t.co/hpaseegzgg #thailand #coronavirus #covid19 https://t.co/d3nfn7iucm',
15. "nih 'very concerned' about serious side effect in astrazeneca coronavirus vaccine trial https://t.co/xp3jtembes",
16. 'as @nickferrarilbc and i discussed, common reasons given for covid-19 vaccine hesitancy include concerns about the side effects of vaccines, the longer-term outcomes after vaccination, the speed at which vaccines were developed, and a belief that covid-19 is not a risk to them.',
17. 'over 20 million people in the uk and many more globally have now received a covid-19 vaccination, with a very low incidence of serious side effects, and strong evidence that they can reduce the risk of serious disease and hospitalisations by around 90%.',
18. 'and to that point, what happens if there are side effects? are the businesses then liable for the #covid19 vaccine they forced their staff to have?\n\nultimately a free, democratic society cannot ransom the right to work with medical procedures.\n\nthis is out of control. stop.',
19. 'several german states called for unused #astrazeneca coronavirus vaccines to be given to younger people, as worries about side effects and efficacy, as well as a recommendation it be used only for under 65s, have meant low take-up of available doses.\n https://t.co/yjm3bdx810',
20. '@kal\_chiron @thatpunekar your point is right but the dcgi has said both covishield and covaxin are safe covid-19 vaccines.\xa0dcgi vg somani categorically said, “both vaccines are 110 per cent safe. some side effects like mild fever, pain and allergy are common for every vaccine.”'

## rapid development of the vaccine: (keywords used for filtration “side effect”)

1. #cloud the critical technology that has enabled the rapid development of the #covid19 vaccine.\n\n#moderna use the cloud to achieve higher efficiency and visibility across manufacturing and inventory management🤝\n\nis moving to the cloud for you? read here➡️\nhttps://t.co/rpwmvjd6lb https://t.co/zcp3smuhvg',
2. '@retchko6 @flyfishcedarci1 "... to deliver 100 million ..." (emphasis mine).\npfizer got $0.00 from ows to develop their vaccine. the rapid development of #covid19 vaccines is touted by the former president\* &amp; his followers - didn\'t apply to pfizer. mrna vaccines had been under development for years.',
3. '@ddiamond @isaacstanbecker when you write of trump\'s accomplishment in rapid development of covid19 vaccines, i.e., "operation warp speed," point out that #mrna approach to vaccine development that permitted such rapid production of #covid19vaccines dates back 2 decades.',
4. '@danrather and the rapid development of the covid-19 vaccine at warp speed is the pinnacle...',
5. '@onthegonicole @tmprowell @oncoalert @mdandersonnews @cancermedmda @viveksubbiah these are not easy conversations! many reasons for #covid19 #vaccine hesitancy (longterm safety, rapid development #warpspeed, microchips, etc). crucial to find out their specific reasons for hesitancy and to guide the conversation w data to mitigate their worries.keep us posted!',
6. 'so which american president is going to take full credit for supporting the rapid development of big pharma’s covid-19 vaccines that are already killing and injuring people? https://t.co/e8tjqpw405 https://t.co/wbqd3r1mfo',
7. '»the rapid development and rollout of the covid-19 jabs means there has been less chance to find and prepare the public for side-effects, and the astrazeneca suspensions show just how quickly opinion can shift.« \nhttps://t.co/hqk2b8jlpm via @financialtimes',
8. "recent social media posts have falsely indicated that receiving a covid-19 vaccine would void a policyholder’s life insurance coverage due to the rapid development of these vaccines. here's what you need to know:\nhttps://t.co/2kqbrgzcwj",
9. '@luigi\_warren @amymaxmen the coronavirus panic-demic just happened on the doorstep of the wuhan lab because this lab was one of the few in the world that could do genomic sequencing at warp speed, which led to a rapid development of mass pcr, which consequently panicked the world.',
10. 'this is the reason why we had a rapid development of covid-19 vaccine!\n\nfull video here: https://t.co/kqy9zvw9qo\n\n@ncdcgov @nancyilloh #covid19\n\n1/1 https://t.co/azd0oue2ul',
11. 'the rapid development of #covid19 vaccines was made possible by\xa0large infusions of public funds. now pharma companies which have not made their vaccines available to most of the human population are looking for the opportune time to hike prices.\n\nhttps://t.co/ooz4jhelcp',
12. 'rapid development of a covid-19 assessment and ppe virtual simulation game https://t.co/jjs26xjhph https://t.co/wbvflndbnh',
13. '#global : rich countries signed away a chance to vaccinate the world : the rapid development of covid-19 vaccines, achieved at record speed and financed by massive public funding in the united states, the european union and br... by #economictimes https://t.co/duvlfmgmcp',
14. 'big pharma cite rapid development of new vaccines as evidence that the drug industry’s traditional business model, based on exclusive patents &amp; know-how, is working.\n\nmeanwhile nations wait for a vaccine, and the #covid19 virus mutates...\n\n#peoplesvaccine\nhttps://t.co/mxmr9w91js',
15. 'with the rapid development of new vaccines, it’s important to separate fact from fiction when it comes down to science. check out these common myths about the #covid19 #vaccine, debunked: https://t.co/qqte97zef8 #mythbustersmonday https://t.co/dqp47dtelc',
16. "@in\_customer @someequal @robertrea @bbcquestiontime you need to complete your sentence.\n\nit's an over-reaction of... the innate immune system in the face of coronavirus infection\n\nit's exactly in-built.\nit's precisely the problem that explains the rapid development and deployment of vaccines that work 1,286 better in live cases",
17. "advanced diagnostics have contributed to the rapid development of the #covid19 vaccine, identified new variants and helped accelerate vaccine development. \n\nread more about the opportunities of #advanceddxs in @eucope's new report here. \n🧪🦠🧪\n\nhttps://t.co/lgijuk2s5h https://t.co/yifmnzop6a",
18. 'clinical research – what is it and how does it benefit older adults? with the rapid development and emergency-use approval of covid-19 vaccines, there has been a lot of information in the news about the vaccine trials that led to each. https://t.co/gn9kbdyhut via @themauinewshi https://t.co/vcj8n0sx8n',
19. 'human embryonic cell lines have made formidable contributions to modern medicine. they have played and promise to continue to play a major role in the rapid development of covid-19 vaccines.\n– but they’re not an ingredient. https://t.co/hlzed3ydna',
20. 'dr. anthony fauci, director of the u.s. national institute of allergy and infectious diseases, appeared to take credit for the rapid development of a covid-19 vaccine in an interview that ... https://t.co/pavuojyvl0'

## new coronavirus variants:(keywords used for filtration “side effect”)

1. 'data shows that the t cell response to covid-19 in individuals infected with the initial viral variants appears to fully recognize the major new variants identified in the uk, south africa &amp; brazil. same anology on tanzanian virants. \u2066@moh\_kenya\u2069\n\u2066 https://t.co/8pmb31igqd',
2. 'oxford-astrazeneca vaccine effective against b.1.1.7 sars-cov-2 variant - #all\_health\_fitness\_tips - now, researchers at the covid-19 genomics united kingdom consortium, the ampheus project, and the oxford covid-19 vaccine trial group... - https://t.co/mgshtmdjff https://t.co/teukuh1ais',
3. 'sars-cov-2 variants are converging\n\n#sarscov2 may be settling into a limited set of mutations\n\nby @vscooper in @sciam \n\n#covid19 #covid19aus \nhttps://t.co/p9aielcziu',
4. '@cnn @cnnopinion wild animal variants could spread covid unabated since coronavirus is said to spread in the air. there are no regulations compelling pcr boarder entry tests, social distancing and mask wearing in the animal kingdom. why no vaccine variants for wildlife virus spreaders? https://t.co/2itgngc109',
5. 'antibodies produced from infection with sars-cov-2 501y.v2 protect against other variants - #all\_health\_fitness\_tips - as the coronavirus disease 2019 (covid-19) pandemic continues to claim thousands of lives daily around the world, the pathogen... - https://t.co/ydt2vwifnh https://t.co/0a9gecdgq6',
6. 'https://t.co/hdw8vicx2e "sub-optimal vaccination will create selective pressure facilitating the emergence of vaccine-resistant variants, which could result in a persisting pandemic." #covid19 #mrna #qcpoli #cdnpoli',
7. '@cnn wild animal variants could spread covid unabated since coronavirus is said to spread in the air. there are no regulations compelling pcr boarder entry tests, social distancing and mask wearing in the animal kingdom. why no vaccine variants for wildlife virus spreaders? https://t.co/gt7y09tru1',
8. 'brazil discovers new coronavirus variant similar to one from south africa https://t.co/ashftqjadj',
9. "delta to pack planes like sardines again, school sports open as youth catch the latest #covid19 variant, hospitals start to fill as restrictions drop.\n\n#mnleg won't pass #medicareforall as they infect us. the oligarchy wants to bleed us for money like a leech treatment.",
10. 'a new portable virus screening test can diagnose covid-19 in minutes and track\xa0variants https://t.co/ctausw688o',
11. "the us just launched the first study testing a version of moderna's coronavirus vaccine tailored to fight a concerning variant\n\nhttps://t.co/xftl7jj5rp",
12. '#brazil sees record-high 3,869 #covid19 daily deaths, pushing its toll to 321,515\nthe country has also detected a new #variant in são paulo state\n#pakistan reported nearly 5,000 new cases, 98 deaths overnight, death toll 14,530\ntotal global deaths 2.8 million, cases over 128 mln',
13. '#brazil deadliest month.. "never in brazilian history have we seen a single event kill so many people in 30 days" said dr miguel nicolelis, coordinator of northeast response pandemic team #pandemic #sarscov2 #covid19 #mutation #variant #2ndwave #3rdwave https://t.co/by5zbddtoa',
14. 'fort lauderdale news search reviews (while shots are going into arms, another 85 cases of people infected with covid-19 variants in flori) fort lauderdale news - https://t.co/nvw6tukak4 https://t.co/jxs0kayl0s',
15. 'covid-19 b.1.1.7 variant on its way to becoming the dominant variant in the united states https://t.co/v2hbokvtyz',
16. '"the health department today released a new data report about covid-19 virus variants." #canarsiecourier https://t.co/vufaxaao4m',
17. "'a wake-up call': kenney urges adherence to rules as alberta logs 871 covid-19 cases, record 406 variants, via @calgaryherald/ sounds like we could have some restrictions back in place tomorrow. we will see. #covid19 https://t.co/m1dkxxepz2",
18. 'b.1.1.7 variant of covid-19 spreading rapidly in united states - #all\_health\_fitness\_tips - the faster-spreading b.1.1.7 variant of sars-cov-2 first detected in the united kingdom, the coronavirus that causes covid-19, is... - https://t.co/wkazqu57ey https://t.co/wc8rfv0d5b',
19. 'fast, portable test can diagnose covid-19 and track variants - #all\_health\_fitness\_tips - clinicians using a new viral screening test can not only diagnose covid-19 in a matter of minutes with a portable, pocket-sized machine,... - https://t.co/edw067nytf https://t.co/fcrjflbv4x',
20. 'a new phase 1 clinical trial has started in the us to evaluate moderna’s investigational vaccine which is designed to protect against the b.1.351 coronavirus variant, the national institutes of health (nih) announced.\n#ommcomnews https://t.co/xi8hwejkv7'