

PA Vaccine Conversations on Twitter

Dr. Iuliia Alieva, Dawn Robertson, Dr. Kathleen M. Carley

Vaccine Hesitancy Project Update based on November 25, 2022 - December 1, 2022

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



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PA Vaccine Conversations Project

- ❑ This report is an effort to summarize social media conversations around COVID-19 issues in Pennsylvania, with a focus on vaccination. It contains an analysis of the general topics related to COVID-19 vaccination. This includes discussions related to COVID-19 regulations, mandates, masks, pro-and anti-vaccination campaigns, science messages, misinformation, disinformation, conspiracy theories, and vaccine hesitancy messages.
- ❑ Anti-Vax messaging includes vaccine hesitancy messages, opinions, questions, policy health and science related information, misinformation, disinformation, and conspiracy theories.



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Report Overview November 25 – December 1

- ❑ Race, Masks, Mandates are trending this week, also Natural Immunity, Thrombosis, Ivermectin are trending this week over the last;
- ❑ Trending stories: [washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths](https://www.washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths) Covid is no longer mainly a pandemic of the unvaccinated. Here's why; [Vaccines.gov](https://www.vaccines.gov); [fxn.ws/3i4Y4ld](https://www.fxnews.com/3i4Y4ld) Vaccinated Americans a majority of COVID deaths for first time in August: analysis; [telegraph.co.uk/news/2022/11/26/pfizers-ceo-rapped-regulator-making-misleading-statements-childrens](https://www.telegraph.co.uk/news/2022/11/26/pfizers-ceo-rapped-regulator-making-misleading-statements-childrens) Pfizer's CEO rapped by regulator for making 'misleading' statements about children's vaccines; pubmed.ncbi.nlm.nih.gov/36381188 Covid 19 vaccines and the misinterpretation of perceived side effects clarity on the safety of vaccines;
- ❑ Popular anti-vax tweets: Dr. Mike Yeadon: "I'm Ashamed That I Was Pro-Vaccine" ... "I Didn't Do My Homework"... <https://t.co/HmClrv4MQm>; I'm thankful I didn't get vaccinated; NEW - Vaccinated people now make up a "majority of covid deaths." It is "no longer" a "pandemic of the unvaccinated." <https://t.co/MigZnsWk6r>; Funny how most the people suspended on Twitter for "misinformation" about COVID, the vaccine, and masks - have now been proven right about what they said about COVID, the vaccine, and masks



Popular anti-vax stories November 25 – December 1

Anti-vax, disinformation, and vaccine hesitancy stories sorted by the number of shares:

- ❑ redvoicemedia.com/2022/11/dr-mike-yeadon-i-didnt-do-my-homework-im-ashamed-that-i-was-pro-vaccine Dr. Mike Yeadon: "I Didn't Do My Homework" – "I'm Ashamed That I Was Pro-Vaccine;"
- ❑ worldcouncilforhealth.org/multimedia/dr-mike-yeadon-depopulation Dr Mike Yeadon: Why the Depopulation Agenda is Real and What We Can Do About It;
- ❑ rumble.com/v1wac7i-world-premier-died-suddenly.html World Premiere: Died Suddenly;
- ❑ childrenshealthdefense.org/defender/joseph-mcginty-death-pfizer-covid-vaccine-investigation Teen's Death 3 Weeks After Pfizer Vaccine Triggers Investigation;



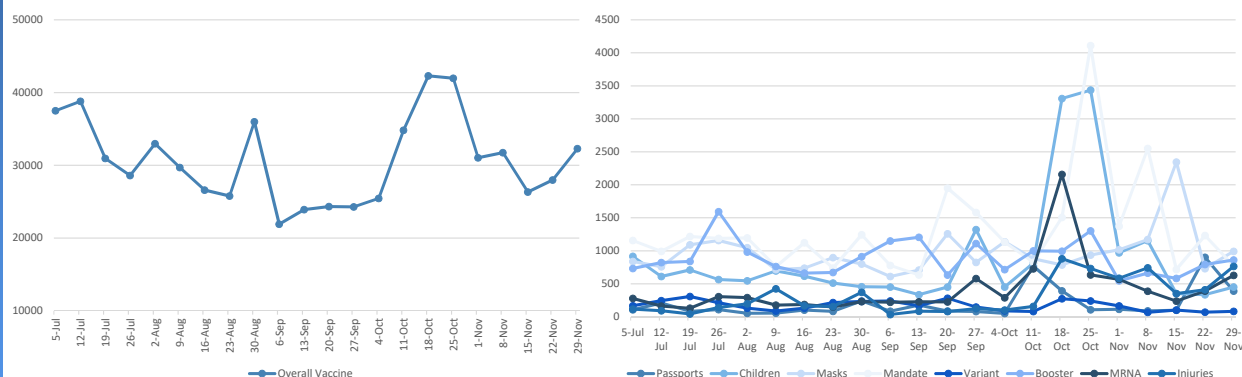
Countering disinformation November 25 – December 1

Articles and fact-checking stories debunking disinformation for the last week:

- ❑ Fact Check: 'Died Suddenly' Pushes Bogus Depopulation Theory <https://theparadise.ng/fact-check-died-suddenly-pushes-bogus-depopulation-theory/>
- ❑ Fact Check: Death Of Envoy Pilot Has NOT Been Linked To COVID-19 Vaccine Or Booster <https://leadstories.com/hoax-alert/2022/12/fact-check-death-of-envoy-air-pilot-has-not-been-linked-to-covid-19-vaccine-or-booster.html>
- ❑ Fact Check: Pfizer CEO Bourla Did Not "Maintain" That mRNA Technology Was Unsafe <https://leadstories.com/hoax-alert/2022/12/fact-check-bourla-did-not-admit-that-mrna-technology-was-unsafe.html>
- ❑ Country Singer's Death Not Related to COVID-19 Vaccine <https://www.factcheck.org/2022/12/scicheck-country-singers-death-not-related-to-covid-19-vaccine/>



Trends (tweets per week in PA) November 25 – December 1



High Level View by City November 25 – December 1

| | Total PA | Philadelphia | | Pittsburgh | | Erie | | Allentown/Bethlehem | | Other | |
|-------------------|----------|--------------|-------|------------|-------|--------|------|---------------------|-------|--------|------|
| Conversation | Tweets | Tweets | % | Tweets | % | Tweets | % | Tweets | % | Tweets | % |
| Overall Vaccine | 27611 | 14967 | 54.2% | 7833 | 28.4% | 199 | 0.7% | 3312 | 12.0% | 1300 | 4.7% |
| Vaccine Passports | 390 | 229 | 1.5% | 95 | 1.2% | 1 | 0.5% | 62 | 1.9% | 3 | 0.2% |
| FDA Approval | 27 | 14 | 0.1% | 6 | 0.1% | | | 6 | 0.2% | 1 | 0.1% |
| Boosters | 529 | 270 | 1.8% | 140 | 1.8% | 4 | 2.0% | 78 | 2.4% | 37 | 2.8% |
| Employees | 37 | 14 | 0.1% | 17 | 0.2% | | | 5 | 0.2% | 1 | 0.1% |
| "Experimental" | 94 | 44 | 0.3% | 24 | 0.3% | 1 | 0.5% | 22 | 0.7% | 3 | 0.2% |
| Children | 261 | 122 | 0.8% | 83 | 1.1% | 1 | 0.5% | 45 | 1.4% | 10 | 0.8% |
| Myocarditis | 272 | 136 | 0.9% | 52 | 0.7% | 2 | 1.0% | 72 | 2.2% | 10 | 0.8% |
| Heart | 344 | 160 | 1.1% | 92 | 1.2% | 2 | 1.0% | 75 | 2.3% | 15 | 1.2% |
| Masks | 976 | 483 | 3.2% | 230 | 2.9% | 10 | 5.0% | 129 | 3.9% | 124 | 9.5% |
| Thrombosis/VITT | 43 | 24 | 0.2% | 10 | 0.1% | | | 8 | 0.2% | 1 | 0.1% |
| Mandates | 771 | 400 | 2.7% | 199 | 2.5% | 7 | 3.5% | 146 | 4.4% | 19 | 1.5% |
| Natural Immunity | 172 | 102 | 0.7% | 33 | 0.4% | | | 35 | 1.1% | 2 | 0.2% |
| Efficacy | 92 | 50 | 0.3% | 15 | 0.2% | | | 25 | 0.8% | 2 | 0.2% |
| Omicron | 33 | 21 | 0.1% | 8 | 0.1% | | | 3 | 0.1% | 1 | 0.1% |
| Delta Variant | 32 | 11 | 0.1% | 2 | 0.0% | | | 5 | 0.2% | 14 | 1.1% |
| Race | 1477 | 1075 | 7.2% | 197 | 2.5% | 8 | 4.0% | 113 | 3.4% | 84 | 6.5% |
| Ivermectin | 156 | 87 | 0.6% | 38 | 0.5% | | | 29 | 0.9% | 2 | 0.2% |
| Military | 144 | 60 | 0.4% | 62 | 0.8% | | | 17 | 0.5% | 5 | 0.4% |
| Breakthrough | 19 | 6 | 0.0% | 10 | 0.1% | | | 3 | 0.1% | | |

Conversation topics trending this week over last:

- Natural Immunity
- Thrombosis
- Ivermectin



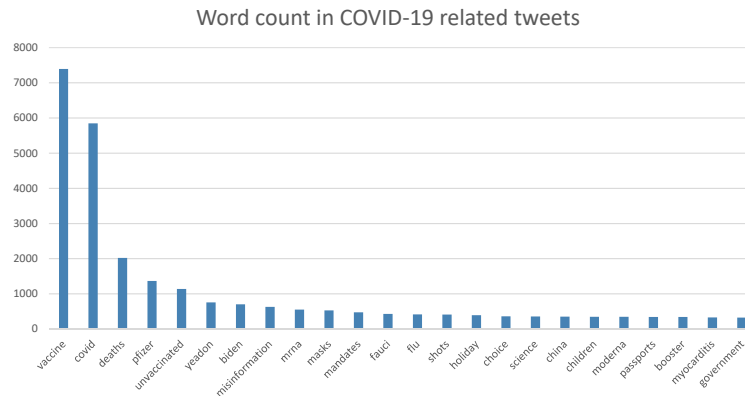
High Level View by County November 25 – December 1

| County | Allegheny | Beaver | Butler | Cambria | Fayette | Indiana | Somerset | Westmoreland |
|-------------------|-----------|--------|--------|---------|---------|---------|----------|--------------|
| Overall Vaccine | 8059 | 21 | 16 | 8 | 7 | 2 | 7 | 62 |
| Vaccine Passports | 96 | | | | | | | |
| FDA | 6 | | | | | | | |
| Boosters | 144 | 3 | 1 | 1 | | | | 1 |
| Employees | 17 | | | | | | | |
| "Experimental" | 25 | | | | | | | |
| Children | 86 | | | | | | | 2 |
| Myocarditis | 55 | | | | | | | 2 |
| Heart | 95 | | 2 | | | | 1 | 1 |
| Masks | 244 | | 1 | | | | 1 | 3 |
| Thrombosis/VITT | 10 | | | | | | | |
| Mandates | 201 | | 1 | | | 1 | | 1 |
| Natural Immunity | 33 | | | | | | | |
| Efficacy | 15 | | | | | | | 1 |
| Omicron | 8 | | | | | | | |
| Delta Variant | 4 | | 2 | 1 | | | | |
| Race | 201 | 1 | | | 1 | | | 2 |
| Ivermectin | 38 | | | | | | 1 | 1 |
| Military | 64 | | | | | | | |
| Breakthrough | 10 | | | | | | | |

- Race: pulled by one of the vaccine keywords plus at least one other term in ("Black", "African American", "of color", "Latin", "Hispanic", "brown", "eugenic")



Top Words Used per Week November 25 – December 1



Top Hashtags by County November 25 – December 1

- ❑ We've checked hashtags in several counties such as Allegheny, Beaver, Butler, Cambria, Fayette, Indiana, Somerset, and West Moreland. After removing hashtags that were part of our search criteria, the top 5 hashtags for each county related to COVID19/vaccines are as follows*:

| Allegheny | Indiana |
|------------------------------|-----------------------|
| diedsuddenly (118) | novaccinemandates (1) |
| pfizer (79) | |
| covid19 (28) | |
| diedsuddenlydocumentary (19) | |
| crimesagainsthumanity (18) | |



Top Hashtags by City November 25 – December 1

- ❑ After removing hashtags that were part of our search criteria, the top 5 hashtags for each region related to COVID19/vaccines are as follows:

| Philadelphia | Chester | Norristown | Pittsburgh | Erie | Allentown/ Bethlehem | Other |
|--------------------|---------------------------------|---------------------------------|----------------------------------|--------------------------|---------------------------------|------------------|
| diedsuddenly (136) | pfizer (14) | diedsuddenly (26) | diedsuddenly (118) | diedsuddenly (5) | diedsuddenly (47) | vaccines (13) |
| mrna (122) | diedsuddenly (11) | pfizer (20) | pfizer (79) | pfizer (2) | pfizer (39) | masks (12) |
| pfizer (75) | diedsuddenlydocu mentary (6) | vaccine (16) | covid19 (28) | covidvaccine (1) | truthaboutmrnavacci nes (11) | vaccinate (12) |
| covid19 (55) | mrna (5) | diedsuddenlydocu mentary (9) | diedsuddenlydocume ntary (19) | donotcomplyever (1) | mrna (10) | pfizer (6) |
| vaccine (47) | truthaboutmrnavac cines (4) | mrna (7) | crimesagainsthuman ity (18) | vaccinessavelives (1) | vaccinedeaths (9) | diedsuddenly (5) |



Top URLs by County November 25 – December 1

| Allegheny | Beaver + Butler | Fayette | Indiana | West Moreland |
|---|--|--|---|--|
| washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths/ Covid is no longer mainly a pandemic of the unvaccinated. Here's why (122) | Vaccines.gov (2) | TrudeauTrial.com Prime Minister Justin Trudeau will finally have to answer for his dictatorial use of the federal Emergencies Act (1) | markcrispinmiller.substack.com/p/why-is-the-university-of-california Why is the University of California trying to KILL its students, faculty and staff? (1) | biznews.com/health/2022/11/23/pfizer-vaccine-deaths Pfizer documents, official government data confirm: 75m vaccine deaths in 2022, critical infertility (2) |
| Vaccines.gov (84) | foxnews.com/health/vaccinated-americans-a-majority-of-covid-deaths-for-first-time-in-august-analysis Vaccinated Americans a majority of COVID deaths for first time in August: analysis (1) | | | reuters.com/legal/litigation/new-data-is-out-covid-vaccine-injury-claims-whats-make-it-2022-10-12 New data is out on COVID vaccine injury claims. What's to make of it? (2) |
| dailysceptic.org/2022/11/28/pfizer-ceo-found-to-have-misled-the-public-over-child-covid-vaccination-by-pharmaceutical-watchdog Pfizer CEO Found to Have Misled the Public Over Child Covid Vaccination by Pharmaceutical Watchdog (62) | twitter.com/snide_sally/status/1407681169957793795 Side effects of covid include (beyond the death, double full-lung COVID pneumonia, kidney failure, massive clots, and again, death) increased chances of early dementia, erectile dysfunction, and decreases the grey matter in your brain. But sure, "experimental vaccine" (1) | | | apnews.com/article/science-health-travel-covid-ce0a23a3eb7185184310d2b7b5df19e2 After a year, omicron still driving COVID surges and worries (1) |
| pubmed.ncbi.nlm.nih.gov/36381188 Covid 19 vaccines and the misinterpretation of perceived side effects clarity on the safety of vaccines (34) | | | | news.com/2022/11/27/shadow-govt-has-built-a-global-vaccine-regime Shocking Investigation discovers a World-Wide Shadow Government has infiltrated "Elected" Governments & Public Health Institutions & built a Global Vaccine Regime (1) |
| foxnews.com/health/vaccinated-americans-a-majority-of-covid-deaths-for-first-time-in-august-analysis Vaccinated Americans a majority of COVID deaths for first time in August: analysis (33) | | | | open.substack.com/pub/technofog/p/the-vaccinated-now-account-for-a-majority-of-covid-deaths The vaccinated now account for a majority of COVID deaths (1) |

Top URLs by City November 25 – December 1

| Philadelphia | Chester | Norristown | Pittsburgh | Erie | Allentown/ Bethlehem | Other |
|---|---|---|---|---|---|---|
| washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-263/ | telegraph.co.uk/news/2022/11/26/pfizer-ceo-rapped-regulator-making-misleading-statements-childrens-Pfizer-s-CEO-rapped-by-regulator-for-making-misleading-statements-about-childrens-vaccines-10/ | washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-37/ | washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-122/ | pubmed.ncbi.nlm.nih.gov/36381188/ Covid 19 vaccines and the misinterpretation of perceived side effects clarity on the safety of vaccines (3) | washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-75/ | twitter.com/RL_W/status/1595794434620559360 There are two main reasons for vaccine injury that I know of, 1) inadvertent i |
| Vaccines.gov (120) | washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-10/ | Vaccines.gov (21) | Vaccines.gov (84) | washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-3/ | Vaccines.gov (47) | washingtonpost.com/politics/2022/11/23/vaccinated-people-now-make-up-majority-covid-deaths-Covid-is-no-longer-mainly-a-pandemic-of-the-unvaccinated-Here-s-why-13/ |
| redvoicemedia.com/2022/11/26/pfizer-ceo-rapped-regulator-making-misleading-statements-childrens-Pfizer-s-CEO-rapped-by-regulator-for-making-misleading-statements-about-childrens-vaccines-110/ | foxnews.com/health/vaccinated-americans-a-majority-of-covid-deaths-for-first-time-in-august-analysis-5/ | worldcouncilforhealth.org/multimedia/dr-mike-yeardon-depopulation-Dr-Mike-Yeardon-Why-the-Depopulation-Agenda-is-Real-and-What-We-Can-Do-About-It-9/ | dailysceptic.org/2022/11/28/pfizer-ceo-found-to-have-misled-the-public-over-child-covid-vaccination-by-pharmaceutical-watchdog-Pfizer-CEO-Found-to-Have-Misled-the-Public-Over-Child-Covid-Vaccination-by-Pharmaceutical-Watchdog-62/ | heckernews.com/breaking-landmark-first-peer-reviewed-study-on-pfizer-and-moderna-covid-vaccines-confirms-excess-risk-of-adverse-side-effects-46720-Landmark-First-Peer-Reviewed-Study-on-Pfizer-and-Moderna-Covid-Vaccines-Confirms-Excess-Risk-of-Adverse-Side-Effects-2/ | foxnews.com/health/vaccinated-americans-a-majority-of-covid-deaths-for-first-time-in-august-analysis-22/ | Vaccines.gov (9) |
| worldcouncilforhealth.org/multimedia/dr-mike-yeardon-depopulation-Dr-Mike-Yeardon-Why-the-Depopulation-Agenda-is-Real-and-What-We-Can-Do-About-It-83/ | Vaccines.gov (4) | rumble.com/v1wac7i-world-premier-died-suddenly.html World Premier: Died Suddenly (8) | pubmed.ncbi.nlm.nih.gov/36381188/ Covid 19 vaccines and the misinterpretation of perceived side effects clarity on the safety of vaccines (34) | childrenshealthdefense.org/defender/joseph-mcginity-death-pfizer-covid-vaccine-investigation-Teen-s-Death-3-Weeks-After-Pfizer-Vaccine-Triggers-Investigation-2/ | childrenshealthdefense.org/defender/joseph-mcginity-death-pfizer-covid-vaccine-investigation-Teen-s-Death-3-Weeks-After-Pfizer-Vaccine-Triggers-Investigation-15/ | foxnews.com/3/4Y41d-Vaccinated-Americans-a-majority-of-COVID-deaths-for-first-time-in-August-analysis-6/ |
| foxnews.com/3/4Y41d-Vaccinated-Americans-a-majority-of-COVID-deaths-for-first-time-in-August-analysis-79/ | abcn.ws/3H7XB2H-Latest-COVID-vaccine-will-help-people-move-on-from-the-pandemic-White-House-s-Jha-says-3/ | technofog.substack.com/p/the-vaccinated-now-account-for-a-majority-of-COVID-deaths-7/ | foxnews.com/health/vaccinated-americans-a-majority-of-covid-deaths-for-first-time-in-august-analysis-33/ | foxnews.com/health/vaccinated-americans-a-majority-of-covid-deaths-for-first-time-in-august-analysis-2/ | pubmed.ncbi.nlm.nih.gov/36381188/ Covid 19 vaccines and the misinterpretation of perceived side effects clarity on the safety of vaccines (15) | scientificamerican.com/article/how-to-compare-covid-deaths-for-vaccinated-and-unvaccinated-people-How-to-Compare-COVID-Deaths-for-Vaccinated-and-Unvaccinated-People-3/ |

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Analysis of Tweepers - Super Spreaders

- ☐ Super Spreaders are users which generate content that is shared often, and hence spread information effectively.



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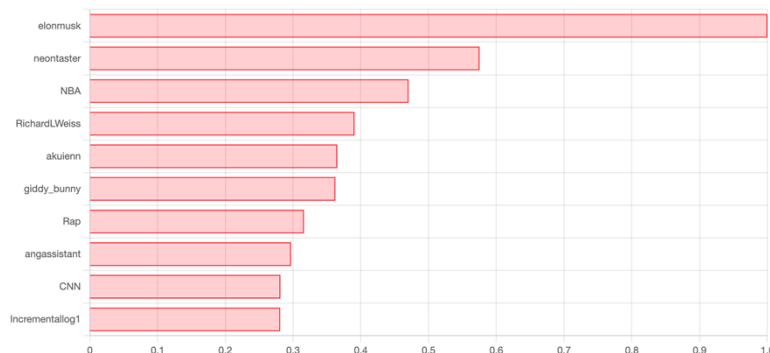
Analysis of Tweeters - Super Friends

- ❑ Super Friends are users that exhibit frequent two-way communication, facilitating large or strong communication networks.



Analysis of Tweeters - Other Influencers

- ❑ Other Influencers are users which have an active network presence, by tweeting often or mentioning users often, and operate in central parts of the conversation, such as by using important hashtags, or mentioning important users.



Accounts Referenced by the Most Tweets

- ☐ This shows the tweeters that are most often referenced (e.g. mentioned) in PA tweets. Value is the number of tweets that reference the agent.

| Agent Label | Value |
|-----------------|-------|
| akuenn | 1047 |
| elonmusk | 409 |
| RealJamesWoods | 255 |
| pfizer | 232 |
| TomiLahren | 211 |
| POTUS | 184 |
| TomPelissero | 173 |
| CGJXXIII | 143 |
| DrAseemMalhotra | 116 |
| denisrancourt | 114 |
| akuenn | 1047 |
| elonmusk | 409 |
| RealJamesWoods | 255 |



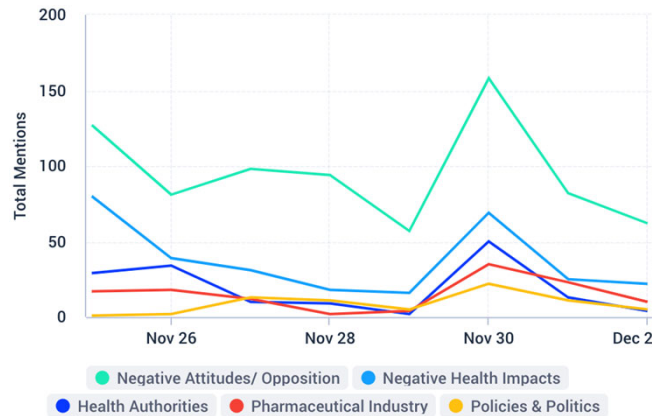
Trending Tweets November 25 – December 1

Tweets that are the most forwarded, either by retweet, reply, or quote:

- ☐ Dr. Mike Yeadon: "I'm Ashamed That I Was Pro-Vaccine" ... "I Didn't Do My Homework"... <https://t.co/HmClrv4MQm>;
- ☐ I'm thankful I didn't get vaccinated;
- ☐ This holiday season, we're seeing initial signs inflation is moderating. Folks are vaccinated. And our unemployment rate is near a 50-year low. America's best days are ahead;
- ☐ I wonder if all those Vax pushing family members have the decency to apologize to their unvaccinated loved ones this year! Turns out, we were right;
- ☐ NEW - Vaccinated people now make up a "majority of covid deaths." It is "no longer" a "pandemic of the unvaccinated." <https://t.co/MigZnsWk6r>;
- ☐ Funny how most the people suspended on Twitter for "misinformation" about COVID, the vaccine, and masks - have now been proven right about what they said about COVID, the vaccine, and masks;
- ☐ Imagine getting 5 vaccines in a year, catching COVID, then bragging about how great the vaccine is;
- ☐ I've never commented on the COVID vaccine. I do have questions, however. If you DON'T get the jab, you'll get zero side effects and enjoy a 99.7% survival rate. Jab or not, it's now known you can still transmit the disease. So, shouldn't getting the jab now be a matter of choice?;
- ☐ Biden endorses vaccine passports, even though he promised he wouldn't. A better representation of today's Democratic Party doesn't exist. Lies and Tyranny. All day every day;
- ☐ What was the main reason you didn't want to get vaccinated?
- ☐ Covid vaccinated pilot dies in mid air <https://t.co/KsTN9iNhOT>;
- ☐ Vaccinated Americans a majority of COVID deaths for first time in August: analysis <https://t.co/IsiYcnXubO>;
- ☐ Just browsing through one of the many Moderna patents for its modified #mRNA C-19 and look what I stumbled across.. "not limited to hours, days, weeks, months and YEARS." <https://t.co/EaMk8lUYwa>;
- ☐ Please participate in this poll if, and only if, you were vaccinated for COVID-19. Whether you had one or more boosters is irrelevant. THE POLL: If you had it to do over again, knowing what you know now, would you get vaccinated for COVID-19?



Negative Attitudes November 25 – December 1



Source: VCTR Project Dashboard



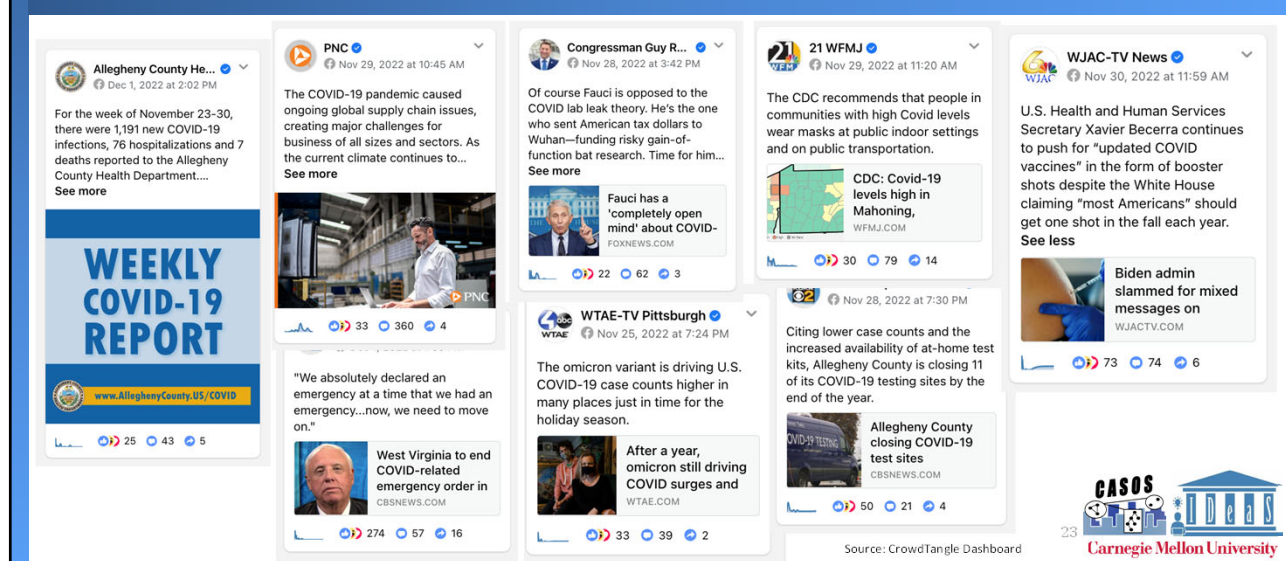
Negative Hashtag Cloud November 25 – December 1



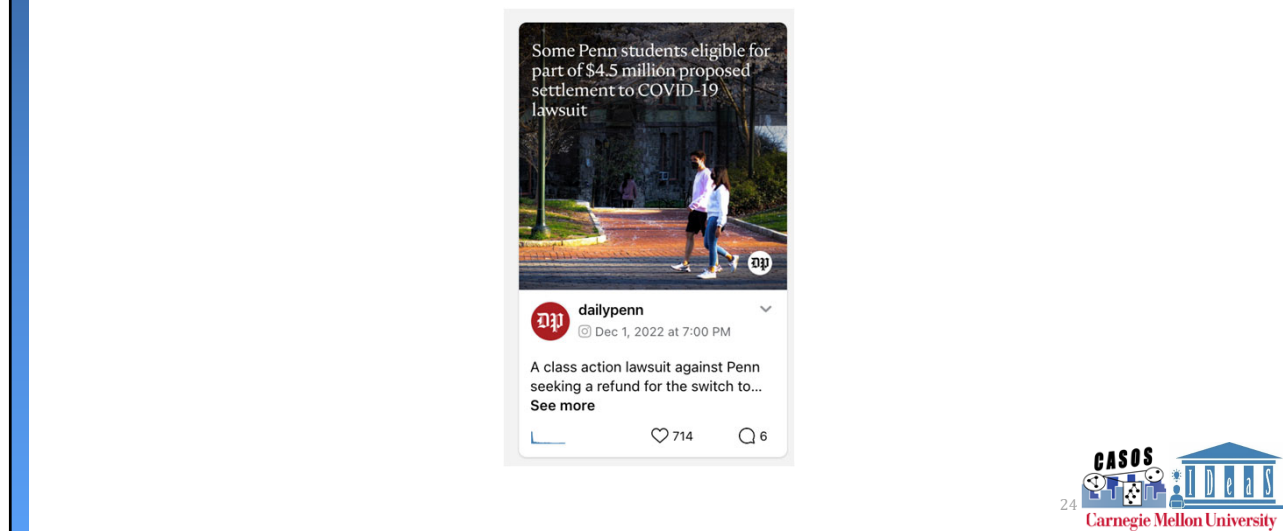
Source: VCTR Project Dashboard



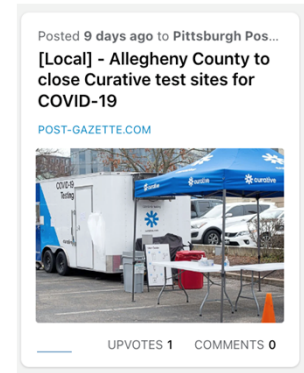
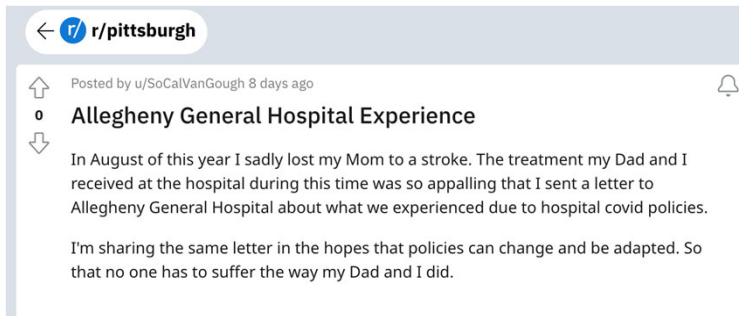
Trending Posts on Facebook November 25 – December 1



Trending Posts on Instagram November 25 – December 1



Trending Posts on Reddit November 25 – December 1



Source: CrowdTangle Dashboard



Measures for countering health disinformation

- ❑ Anti-vaccine narratives are still pervasive on social media, while there are not that many counter-narratives about the positive effects of vaccines;
- ❑ There is a need for a reframing of social media as a medically and socially valuable resource and platform because of its high impact on society;
- ❑ Healthcare organizations need to implement social media strategies to create and expand conversations countering disinformation on social media;
- ❑ It would be helpful for health communicators to cooperate with local influencers who could spread pro-vaccination messages. Another strategy could be to motivate health practitioners to use social media as a channel for communication with the public;
- ❑ "Strategies focused on meaningfully and safely engaging HCPs on social media, promoting interconnectivity across the medical and public health communities on COVID-19 vaccine truths, and sustaining these messaging efforts across vaccine implementation stages will be our best hope of preventing any more missed doses and promoting "misinformation immunity" for all." (Hernandez et al. 2021. "The COVID-19 vaccine social media infodemic: healthcare providers' missed dose in addressing misinformation and vaccine hesitancy.")



Measures for countering health disinformation

- ❑ As a trusted source of information on vaccines, family physicians play a crucial role in driving vaccine acceptance;
- ❑ Sharing stories, building trust with patients, addressing pain associated with vaccination, presenting vaccination as the default approach early on, focusing on the benefits of protection, and being honest about side effects could also help to promote pro-vaccination attitudes (Shen & Dubey 2019. “Addressing vaccine hesitancy: Clinical guidance for primary care physicians working with parents”);
- ❑ It is helpful to provide more information for the patients about the possible disinformation strategies they may deal with, such as manipulating emotions to promote misinformation and conspiracy theories to sow confusion and create division. Inoculation strategy may help to prepare the community by presenting counterarguments to misinformation and raising awareness of negative emotional appeals spread by anti-vaccine campaigns;
- ❑ Framing vaccination as a concrete, actionable strategy to reduce COVID-19 risk may help to address negative emotions, increase self-efficacy and ensure the feelings of control over reducing COVID-19 risk.



For More Information

- ❑ Director Kathleen M. Carley - kathleen.carley@cs.cmu.edu
 - ❑ <http://www.casos.cs.cmu.edu/bios/carley/carley.html>
- ❑ IDEaS website - <https://www.cmu.edu/ideas-social-cybersecurity/>
- ❑ CASOS website - <http://www.casos.cs.cmu.edu/>
- ❑ Social Cybersecurity Working Group - <http://social-cybersecurity.org>
- ❑ Facebook: [@IDEasCMU](#)
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