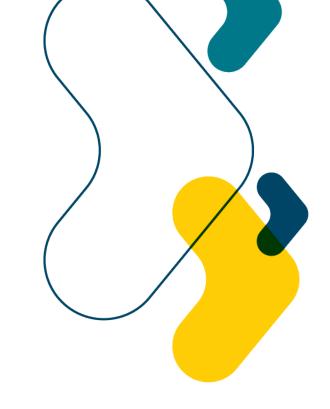




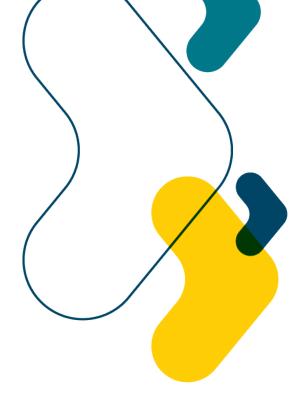
Keeping up with The Times

Global public health surveillance with local news text analytics



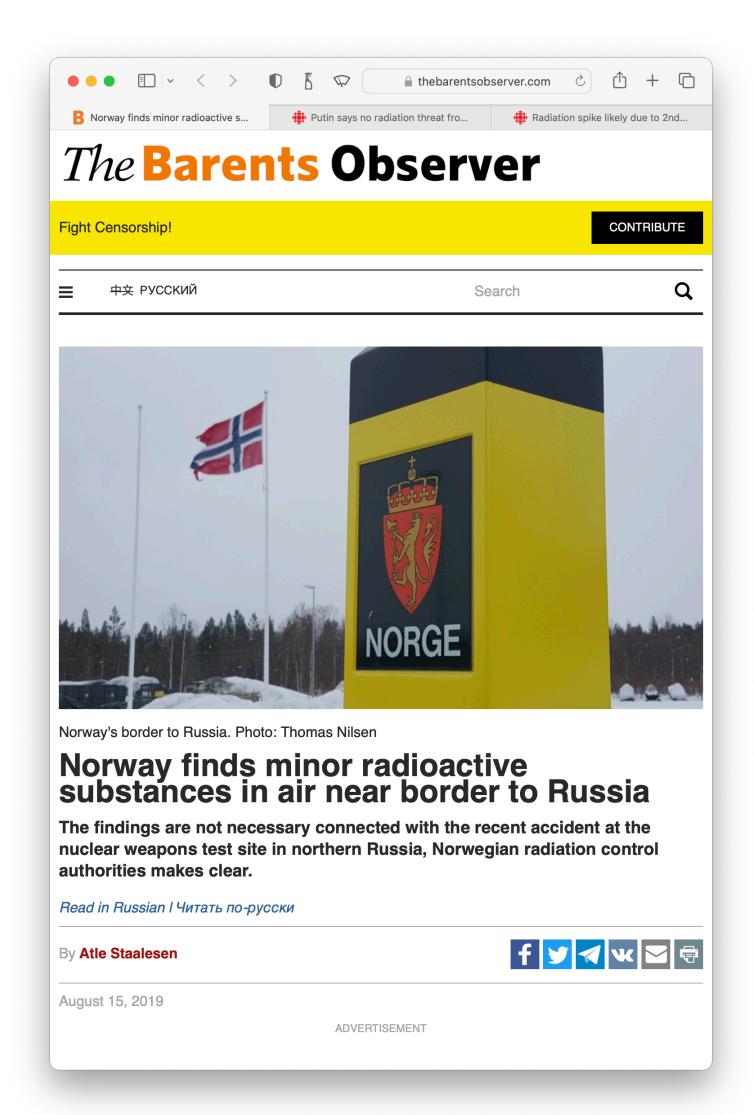
- News?
- Natural language
- GPHIN

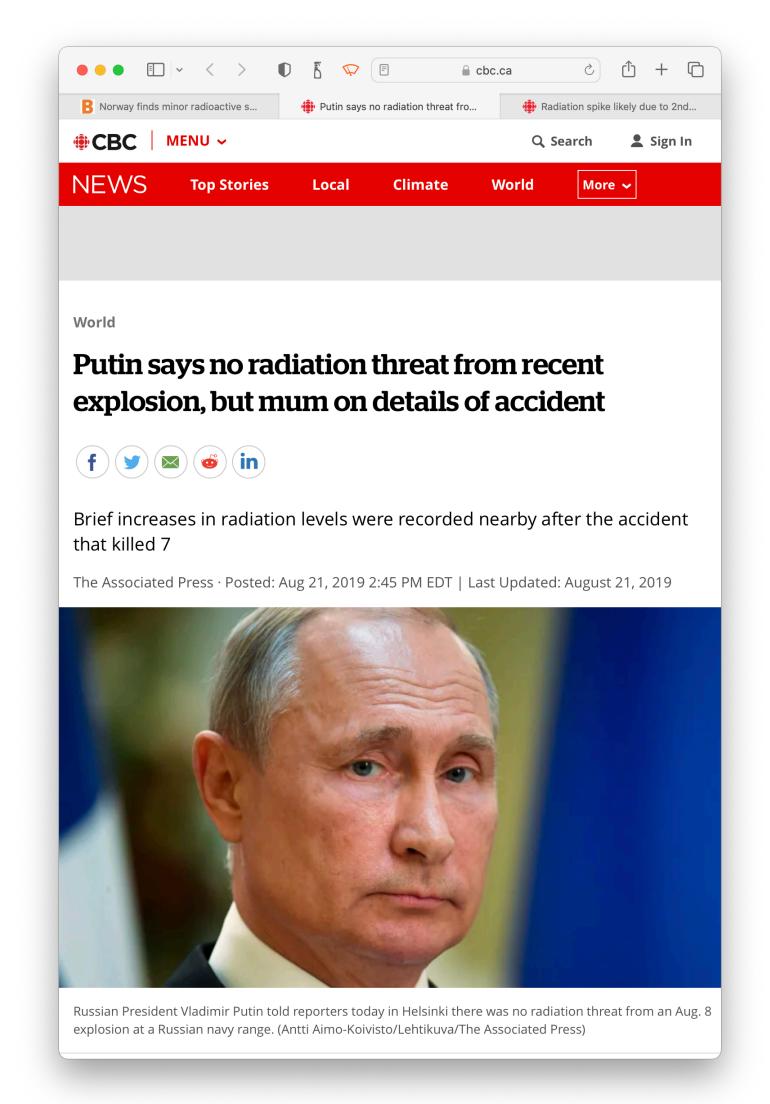




Not just for infectious disease

(but it's great for that too)

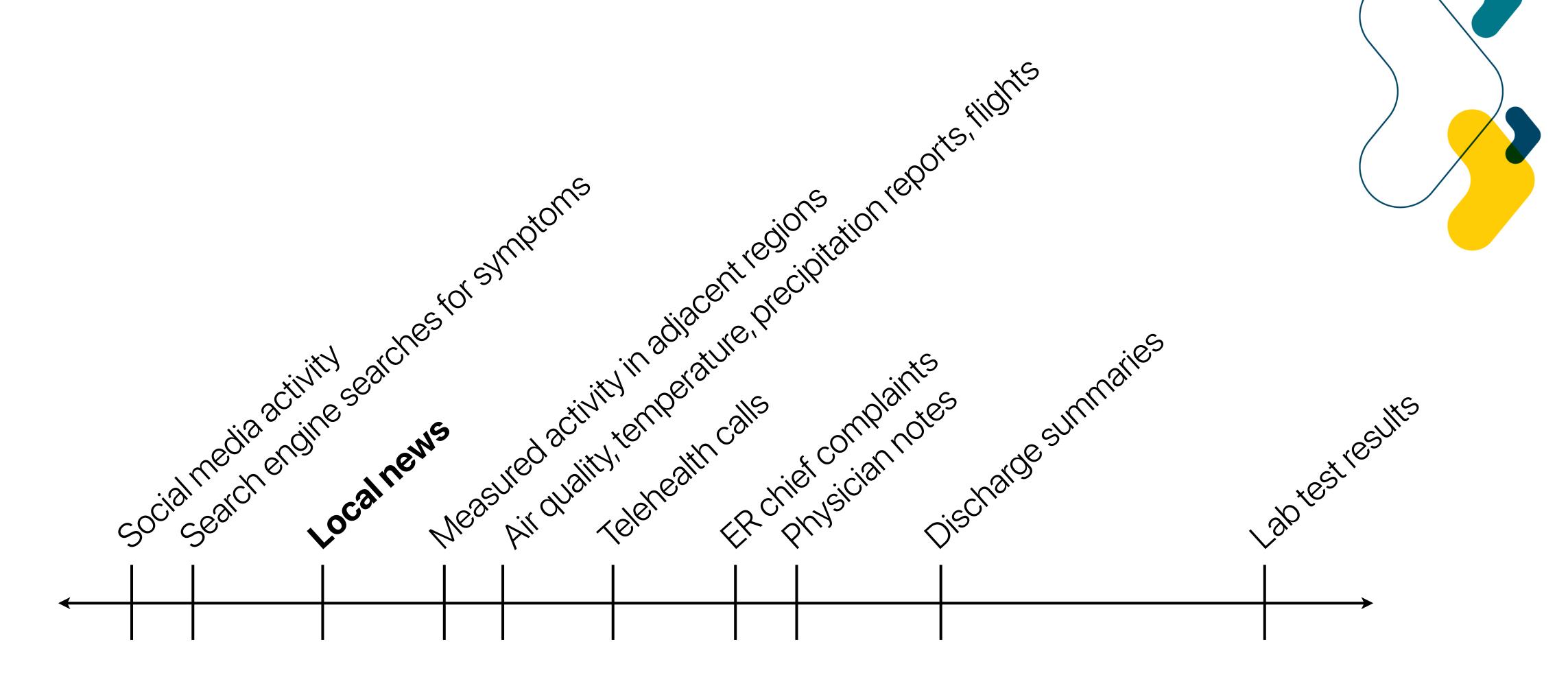




2019.08.**15** 2019.08.**21**



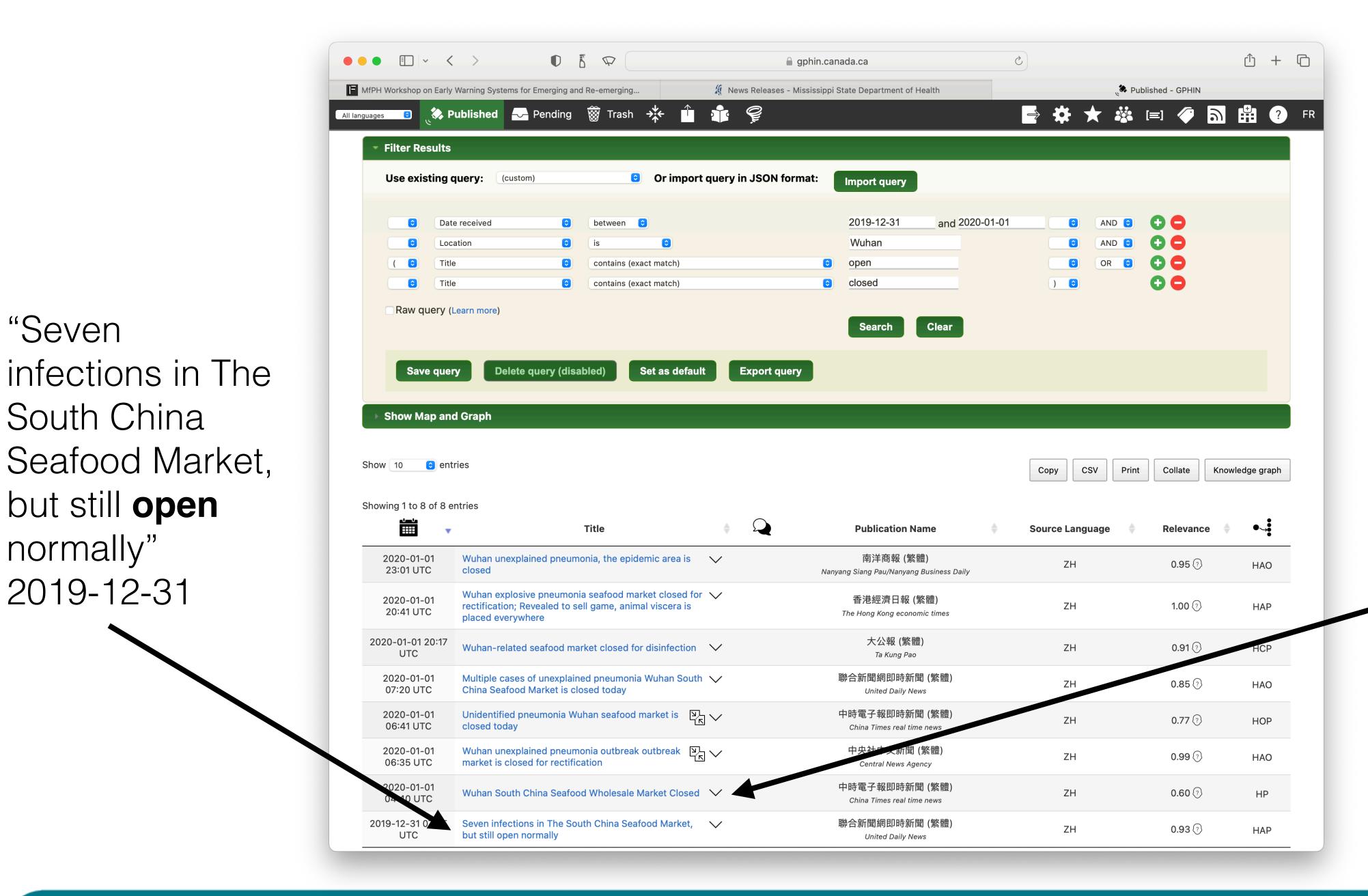
2019.08.23



Available sooner Less certain

Available later
More certain





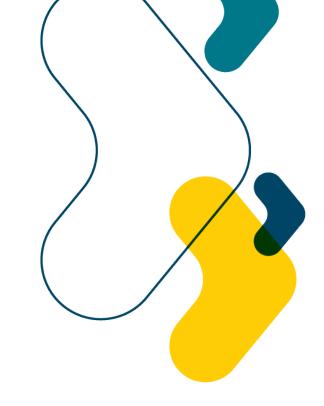
"Seven

South China

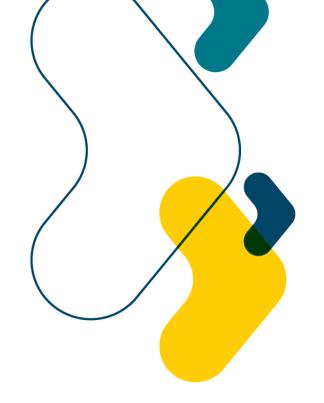
but still open

normally"

2019-12-31



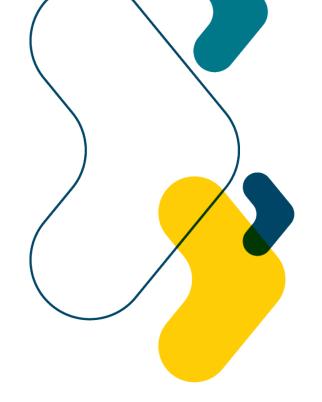
"Wuhan South China Seafood Wholesale Market **Closed**" 2020-01-01



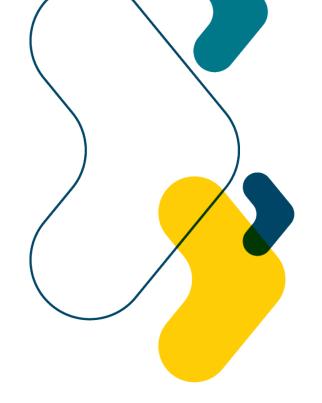
Local news coverage

VS.

local public health capabilities

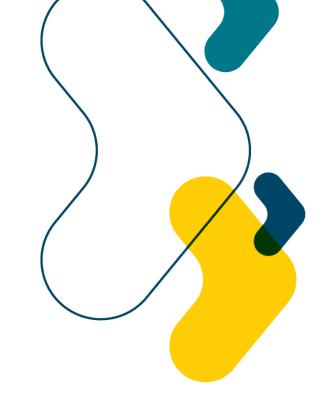


Available

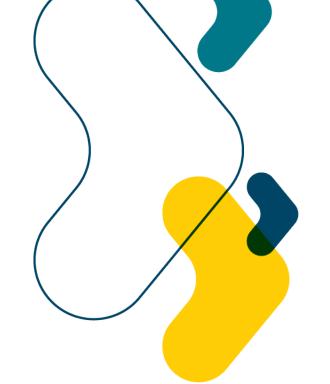


Some limitations

Non-free press; bothsidesism; journalistic interpretation



- News
- Natural language
- GPHIN



"Words [are] known by the company they keep."

Mackin, R. 1978

(distributional semantics)

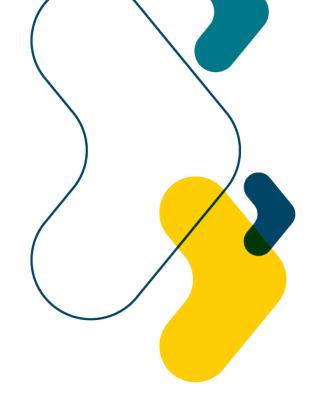
He was mugged in ____ daylight.

There were no weapons of mass _____

She ____ on their door.





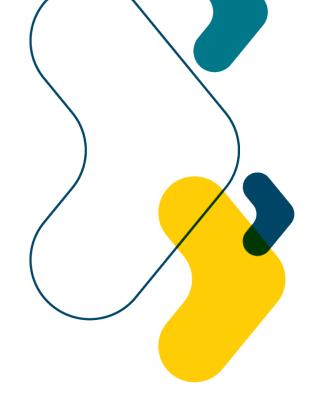


All three people reported fever, _____, and chills. (symptom discovery)

All patients reported having visited _____. (location/point source discovery)

The mysterious illness has been identified as _____. (change point)

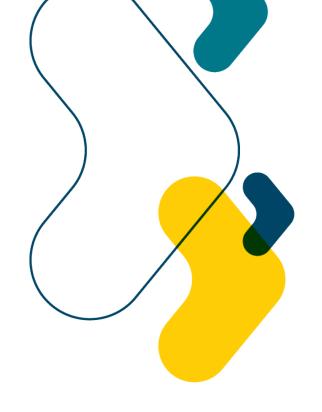




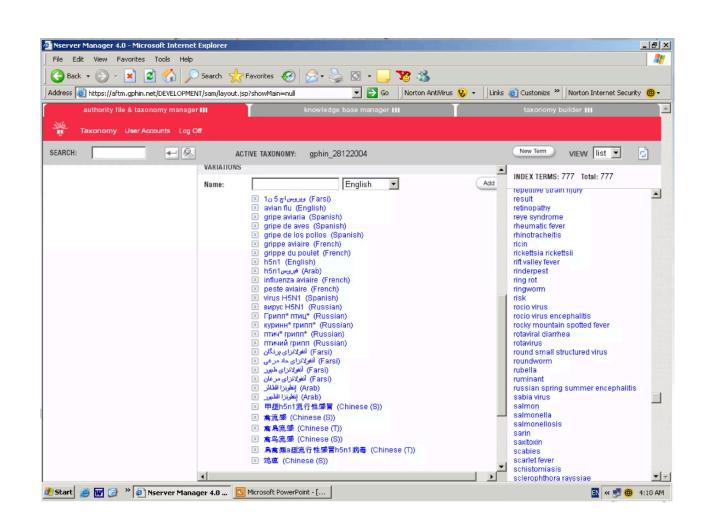
Situational awareness:

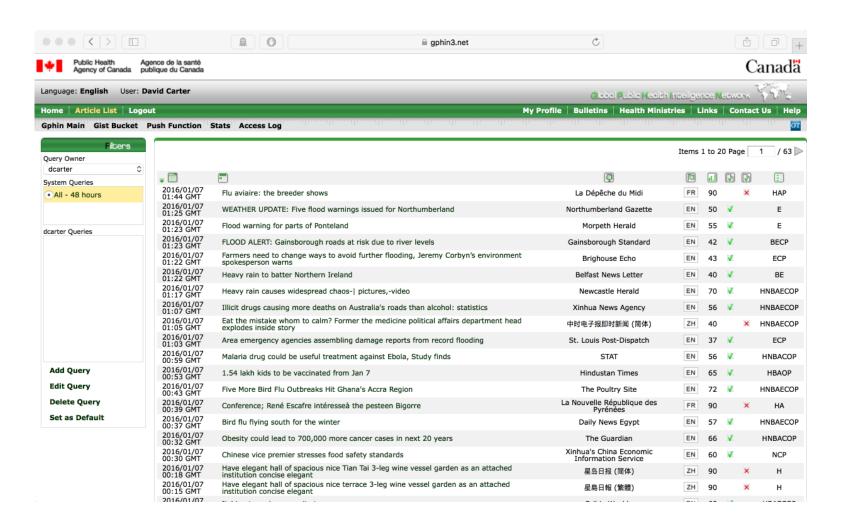
"knowing what's going on so you can figure out what to do"

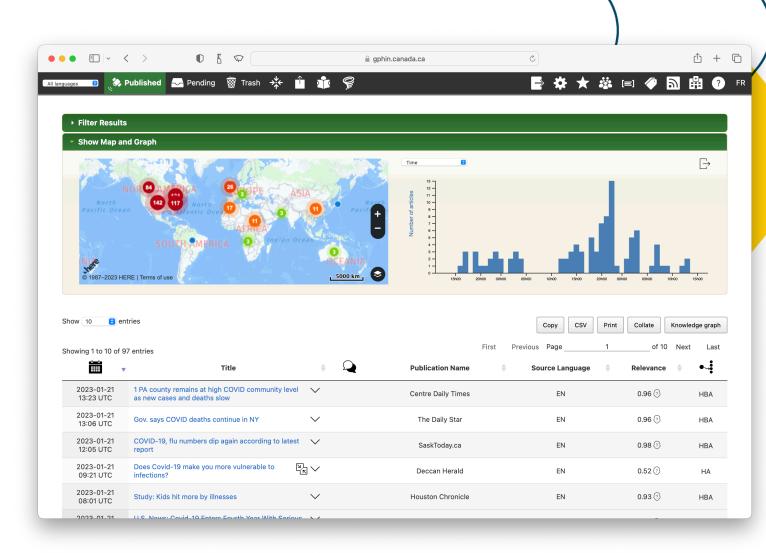
Adam, E. C. Fighter Cockpits of the Future. IEEE Digital Avionics Systems Conference. 1993; 319.



- News
- Natural language
- GPHIN







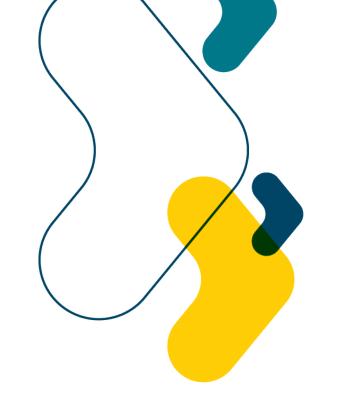
GPHIN: Global Public Health Intelligence Network

A team. A collaboration. A 25+ year evolution.

NRC-CNRC



Agence de la santé publique du Canada

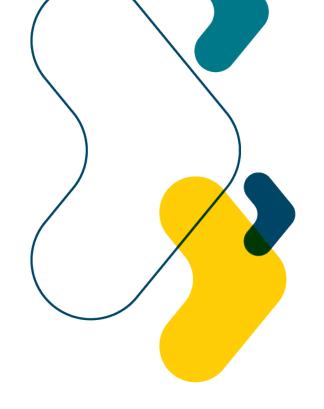


Global. Data from everywhere; users in 30+ countries

Public health. Health news, professional Twitter, epis' reports

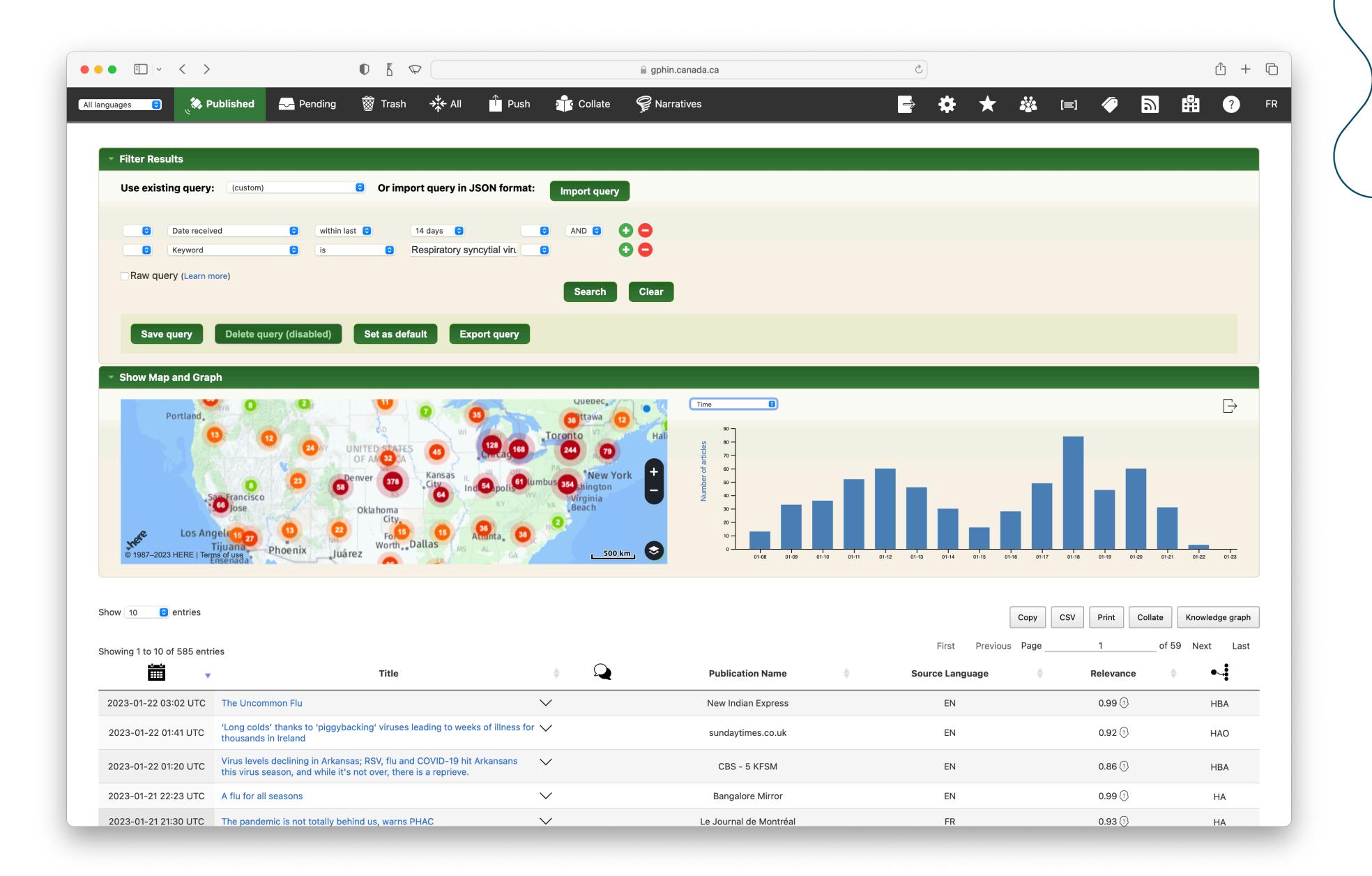
Intelligence. 6000+ documents a day in 10 languages

Network. 900+ pro users globally

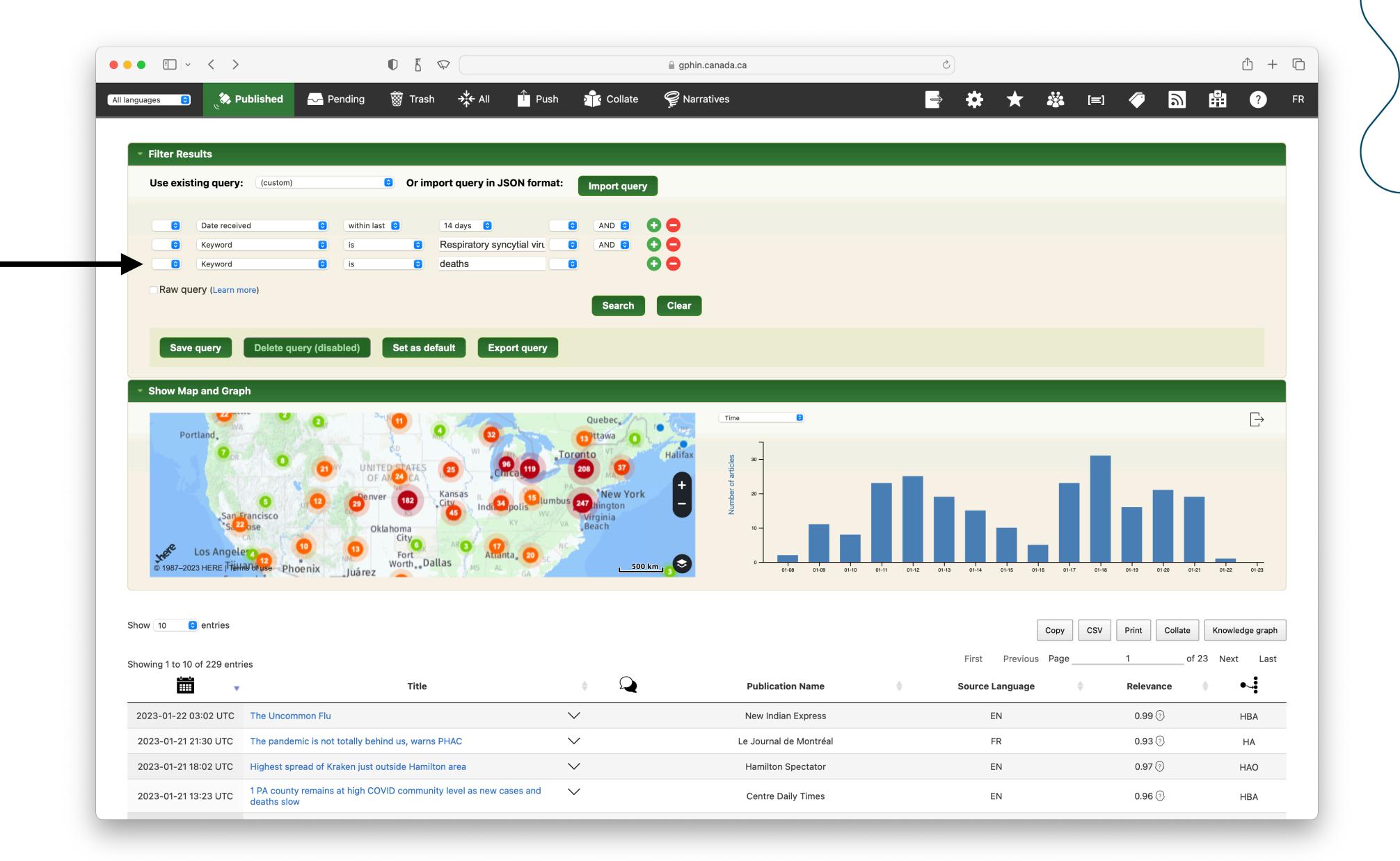


Data

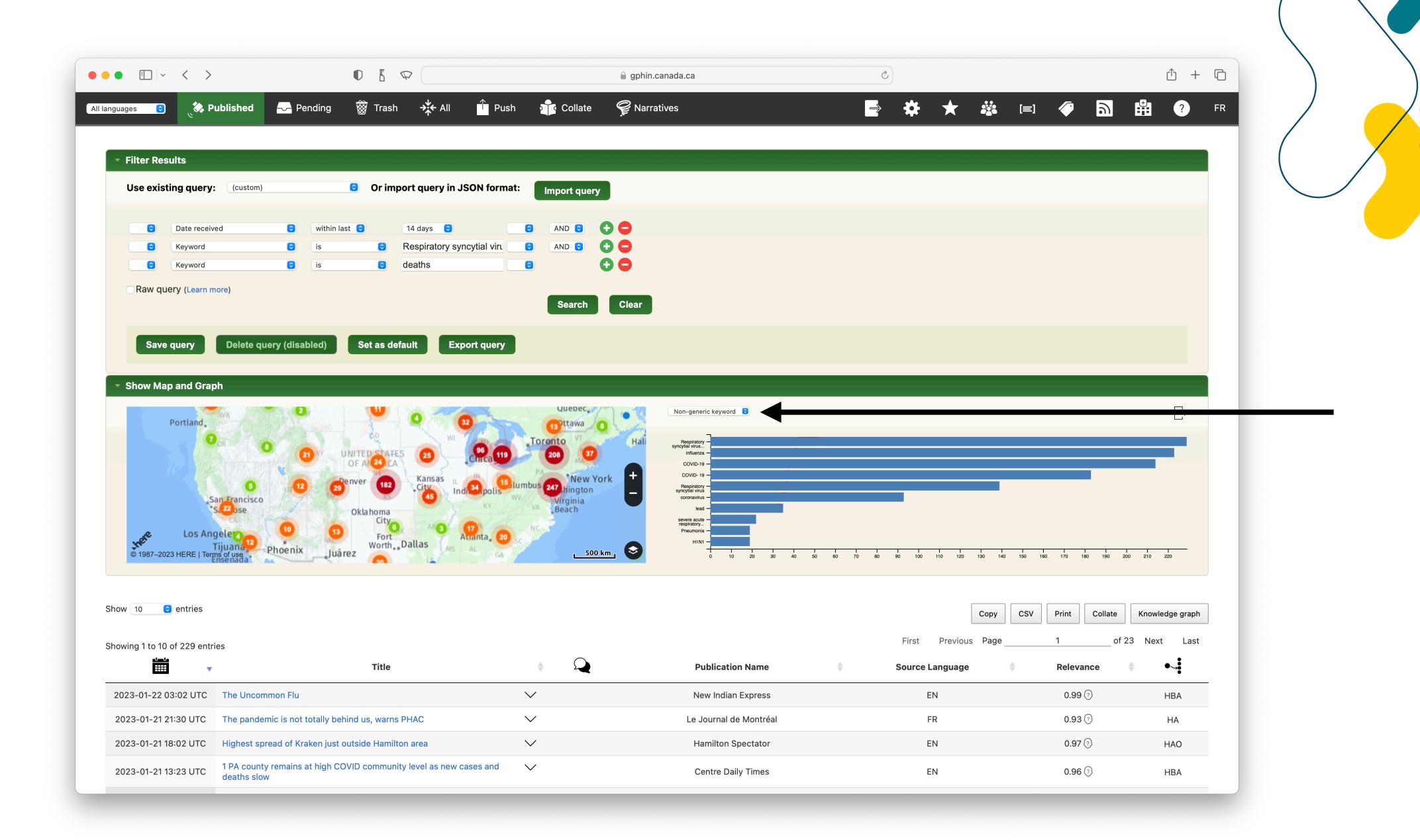
- Dow Jones Factiva
- professional twitter
- RSS (incl google news searches)
- push
- keyword ontology
- analysts' triage, tagging, highlighting, notes
- gazetteer & ReliefWeb

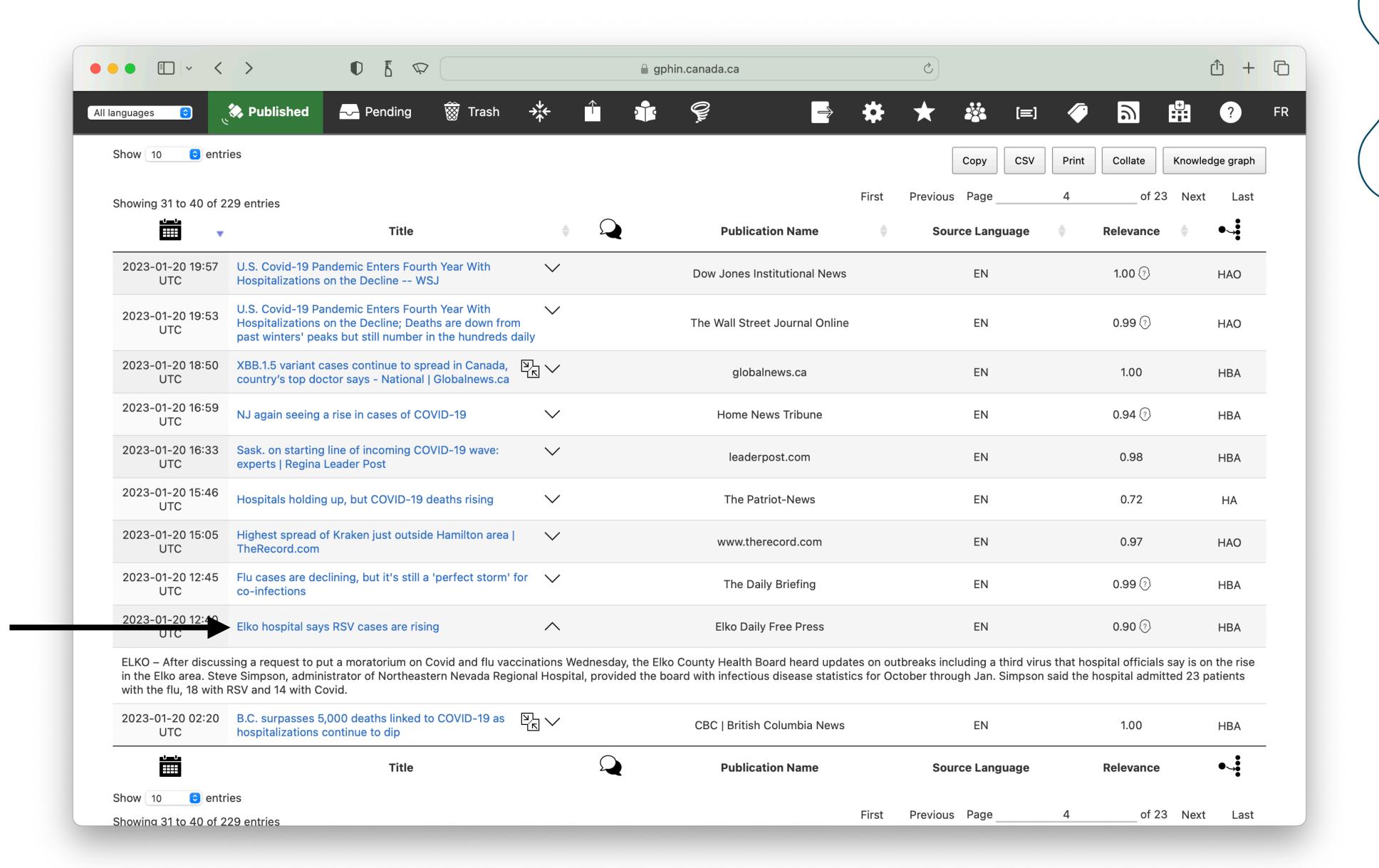




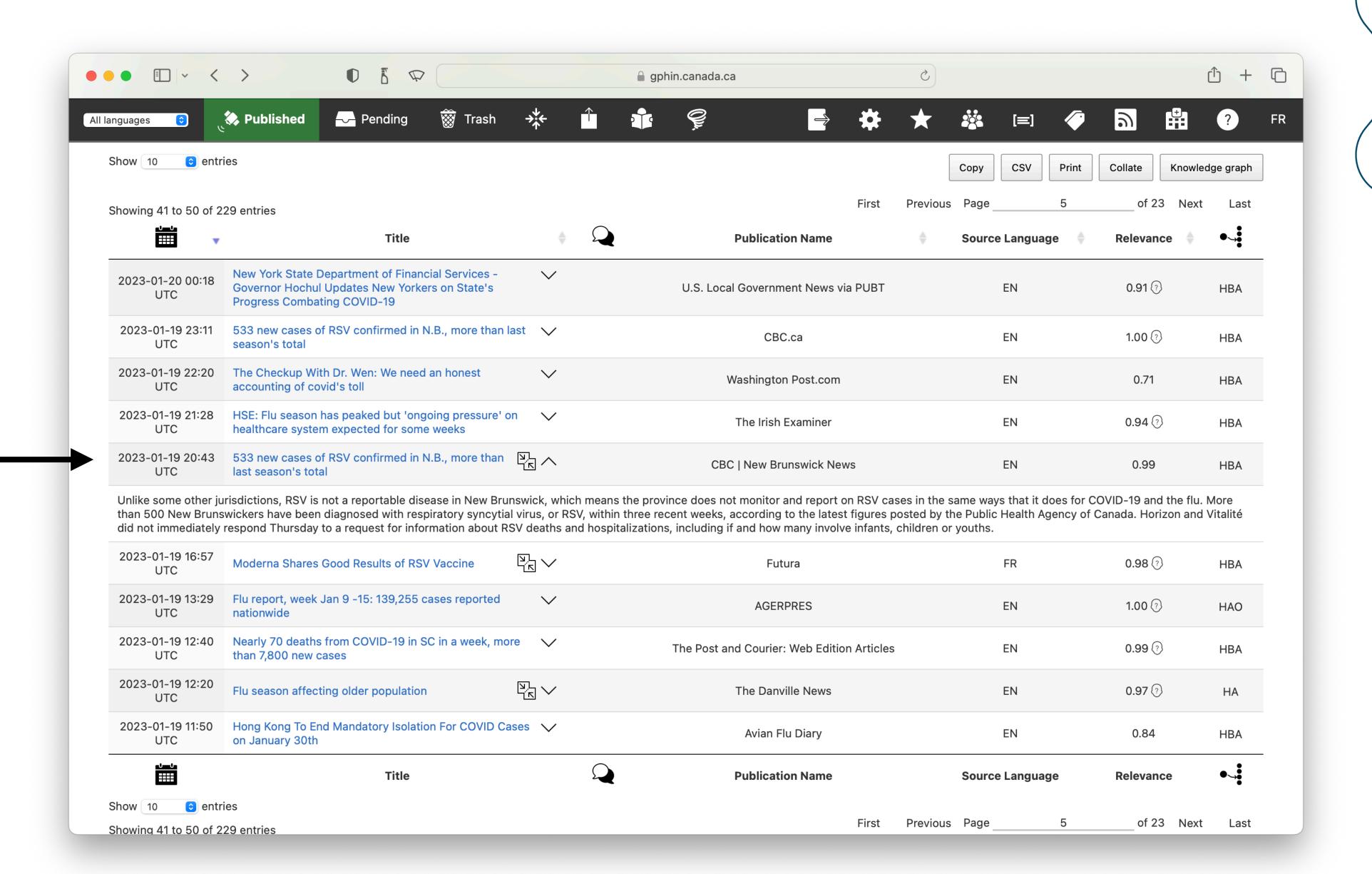






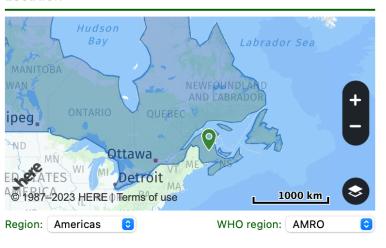








Location



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Canada ⊙ New Brunswick

Information

1013242282 🗓 Unique ID: Source link: Origin: RSS aggregator Publication date: 2023-01-19 20:42 UTC Received date: 2023-01-19 20:43 UTC Publication name: CBC | New Brunswick News

Article

Publication language:

0.995 _ 💍 Relevance score: Reviewed for relevance:

Last edited by: hkian Importance: Document type:

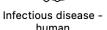
Tags

GPHIN Daily Report imes Duty Officer Report imes



Categories









Keywords

COVID-19 influenza

Respiratory syncytial virus Respiratory syncytial virus infecti...

confirmed injections measure symptoms vaccines

alert

case

533 new cases of RSV confirmed in N.B., more than last season's total

Duplicate articles:

533 new cases of RSV confirmed in N.B., more than last season's total (likelihood 1.00)









More than 500 New Brunswickers have been diagnosed with respiratory syncytial virus, or RSV, within three recent weeks, according to the latest figures posted by the Public Health Agency of Canada.

That's more than the 371 cases confirmed all of last season, the website shows.

The number of lab-confirmed cases of RSV in the province, as of Jan. 7, is 1,186. That's up from 653 as of Dec. 17 — nearly a 60 per cent jump. The actual number is likely much higher since many people probably just stay home and don't get tested.

In 2018-19, pre-pandemic, the seasonal total was 1,237.

RSV is a common respiratory virus most children contract by the age of two. It usually causes a mild illness with cold-like symptoms, but can be "an important cause of morbidity and mortality in infants, young children and the elderly," according to Health Canada.

Of the 533 new confirmed cases, almost 40 per cent — 212 — were confirmed during the most recent week, ending Jan. 7.

No data on deaths, hospitalizations

The federal website does not provide any information about deaths or hospitalizations.

New Brunswick's Department of Health has said the regional health networks "may have" that information.

Unlike some other jurisdictions, RSV is not a reportable disease in New Brunswick, which means the province does not monitor and report on RSV cases in the same ways that it does for COVID-19 and the flu.

In November, Dr. Yves Léger, the acting chief medical officer of health, said Public Health would look at the list of reportable diseases in the "near future" to determine if RSV should be added. Right now, the province simply inputs weekly RSV lab results into the national respiratory virus detection

Horizon and Vitalité did not immediately respond Thursday to a request for information about RSV deaths and hospitalizations, including if and how many involve infants, children or youths.

Deadliest flu season in a decade

The RSV update comes as New Brunswick is facing the deadliest influenza season it has seen in at least a decade.

Twelve more New Brunswickers died from the flu during the first week of January, raising the death toll so far this season to 59, according to the latest

Data on the Public Health website dating back to 2013-14 shows until now, the highest number of deaths was 50 in 2017-18.

The 2022-23 season, which began Aug. 28, continues into the summer.

"It's well documented that influenza is an illness that can lead to death, particularly for those in vulnerable age groups, or who have other chronic

health conditions, or who may be immunocompromised," said Department of Health spokesperson Adam Bowie.

"This is why the Province of New Brunswick offers flu vaccines to its entire population free-of-charge, including high-dose vaccines for all individuals 65 years of age or older," he said in an emailed statement.

2 children under 10 hospitalized for flu

None of the latest flu deaths involved infants, children or youths, said Bowie.

Of the 30 people who were admitted to hospital because of the flu between Jan. 1 and Jan. 7, two were children under 10, he said.

There were 108 new cases of the flu confirmed by a lab that week.

Influenza activity has been decreasing for the past five weeks, according to Bowie. "This trend is expected to continue," he said.

About 60,000 fewer get flu shot

Nearly 60,000 fewer New Brunswickers have gotten their flu shot, compared to the same time last year, despite warnings about a more severe season, following the lifting of COVID-19 measures.

A total of 229,893 influenza vaccines had been administered, as of Jan.16, according to the Department of Health.

That's down from 288,754, as of Jan. 15, 2022 — roughly 23 per cent fewer.

"It's important to note the administration of influenza vaccines started about a week earlier in 2021 than they did in 2022," said Bowie.

In addition, "there have been some process changes around the data reporting for pharmacies and primary care providers that may be causing a slight lag in the reporting process," he said.

Of the shots administered to date, the age breakdown includes:

6 months to 8 years — 11,254.

9-18 years — 10,121.

19-64 years — 99,561.

65 years and older — 108,958. Indoor masking recommended

Earlier this week, Dr. Yves Léger, acting chief medical officer of health, recommended people wear a mask in indoor public places.

He described the province's recent respiratory virus numbers as "a bit of a mixed bag."

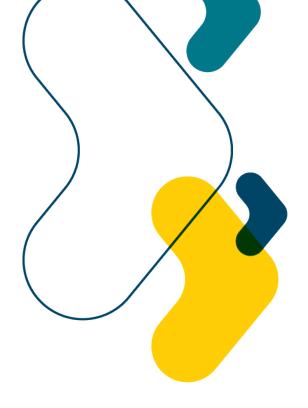
RSV activity continues to increase, flu activity is trending downward and Public Health is keeping an eye on COVID-19 activity as new cases fluctuate. Fourteen people were newly admitted to hospital because of the virus, two of whom required intensive care.

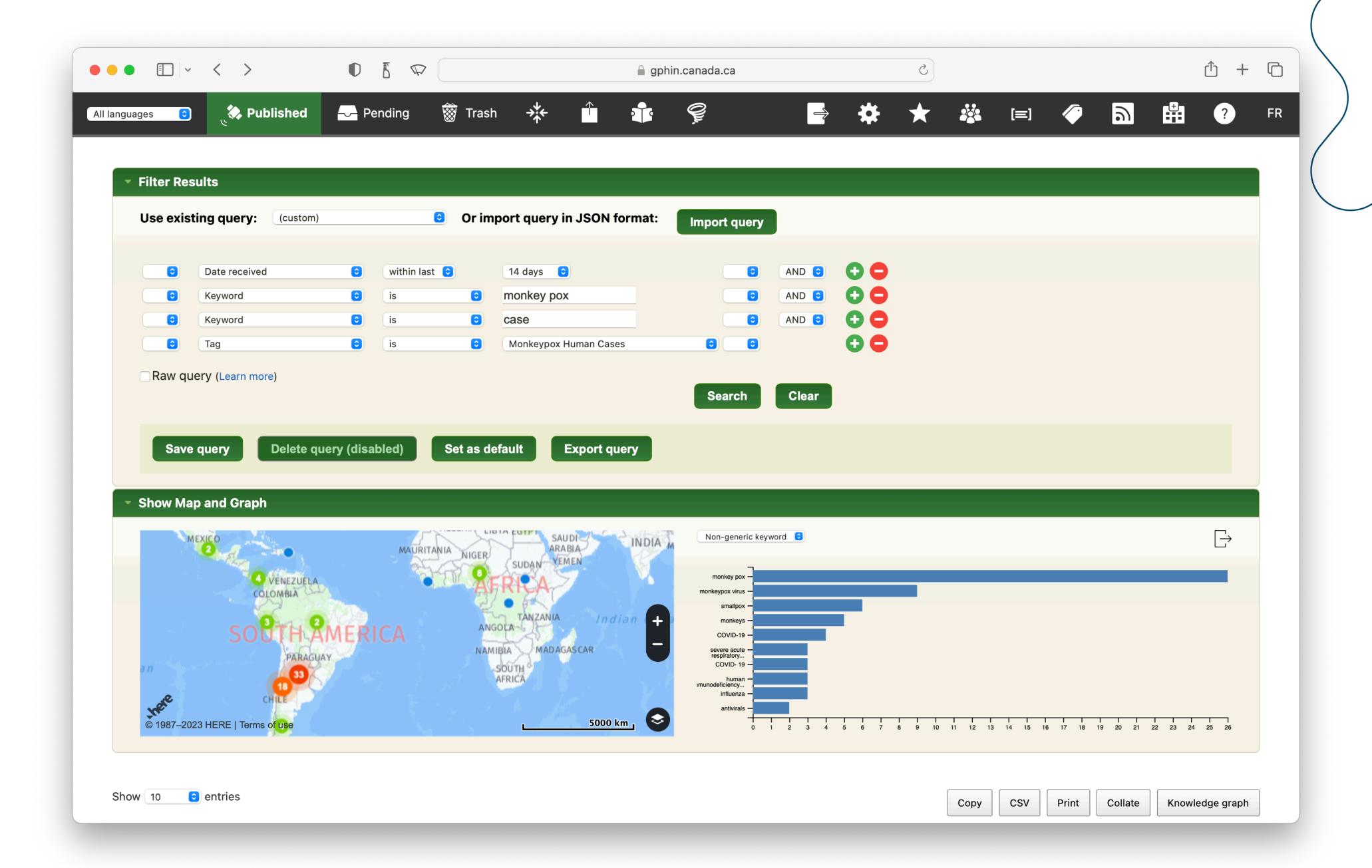
The two regional health authorities say there are 107 New Brunswickers currently hospitalized either for or with COVID, as of Saturday, including one

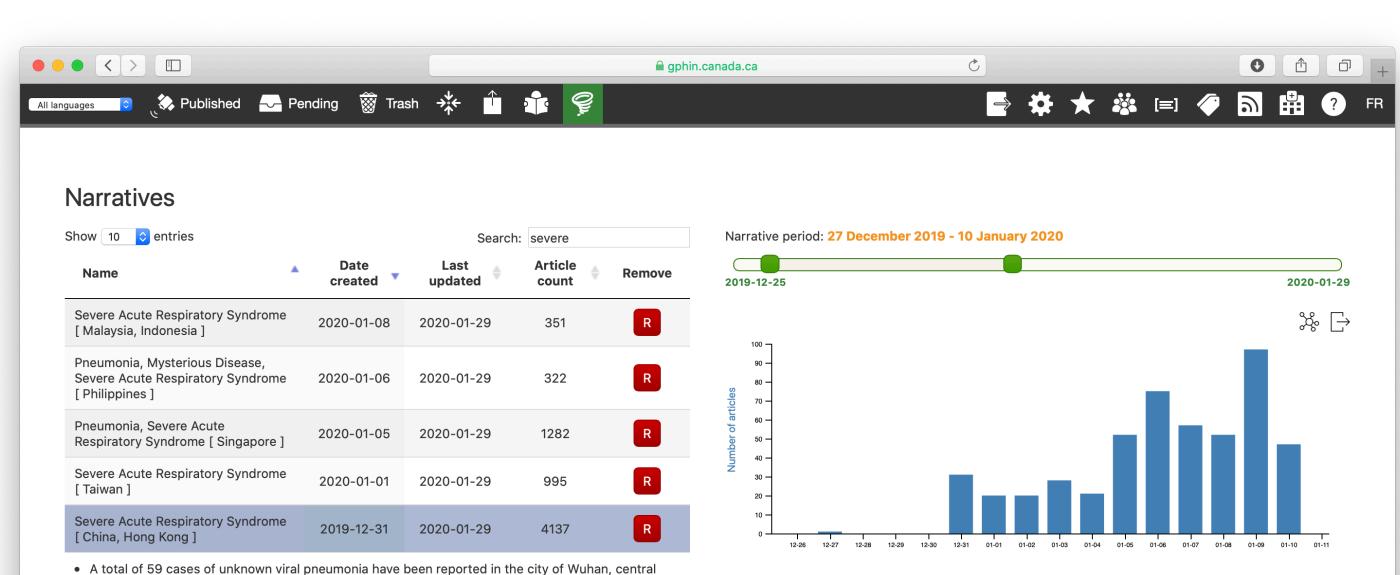
There were 555 new cases of COVID-19 reported, including 433 confirmed through a PCR (polymerase chain reaction) lab test, and 122 people who self-reported testing positive on a rapid test.

Write a comment









China, with seven patients in critical condition, the Wuhan Municipal Health Commission said in a statement on Sunday.

- It is a mysterious pneumonia, from which dozens of people have been infected in the city of Wuhan and which corresponds to a new strain of a coronavirus similar to the one that caused the epidemic of SARS (severe acute respiratory syndrome) in 2002.
- The Hong Kong Government is monitoring suspected cases related to pneumonia in Wuhan, but as
 the cause and transmission route of this unknown pneumonia has not yet been identified, there is no
 statutory power under The Law of Hong Kong to require patients to be treated in isolation, which led
 to the refusal of a suspected patient from the Mainland who had travelled to Wuhan the day before
 yesterday to stay in hospital and the Department of Health and Development was unable to trace
 the patient's whereabouts.
- Authorities in Wuhan announced on Sunday that 59 people had been admitted to hospital with an
 unidentified form of pneumonia, up from 44 on Friday, while nine more patients were found with
 fever or respiratory symptoms after returning to Hong Kong from the city in central China.
- Health officials in China are investigating the cause of a pneumonia outbreak in the city of Wuhan in Hubei province that has sickened 27 people and seems to be linked to a seafood market.
- The Chinese health authorities have ruled out the severe acute respiratory syndrome, or Sars, as the cause of the mystery pneumonia that has struck 59 people in the central Chinese city of Wuhan.
 Since the end of last year, Wuhan City Health And Health Committee in Hubei Province informed
- Since the end of last year, Wuhan City Health And Health Committee in Hubei Province informed some medical institutions to receive a number of unexplained cases of pneumonia, more than a week, the preliminary evaluation of the results of the pathogen test team yesterday to CCTV and other mainland media revealed that this unexplained case of viral pneumonia pathogens initially determined as "the The new coronavirus is different from the human coronavirus that has been found.
- Health officials in China say an outbreak of pneumonia in the central city of Wuhan has been caused by a new strain of the virus that led to the deadly SARS outbreak over a decade ago.
- Wuhan City Health and Health Commission Medical and Political Management Department issued a
 notice the night before, referring to the South China seafood market has been the emergence of
 unexplained pneumonia patients, the city health and health committee launched a case search
 investigation with South China Seafood City, found 27 cases, of which 7 cases are serious, two
 cases of improvement to be discharged from the hospital in the near future, the rest of the cases
 are stable, the patient performance is mainly fever, A small number of patients have difficulty
 breathing.

Daily summary for 31 December 2019

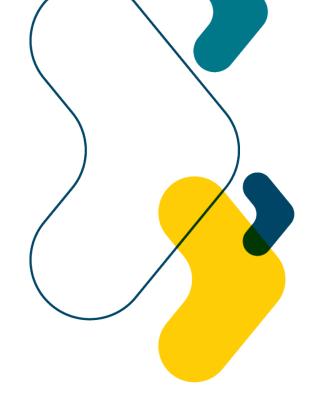
- Wuhan Health and Health Commission recently reported that some medical institutions found a number of cases of pneumonia and South China Seafood City is linked, received the report, the Health and Reform Commission immediately in the city's medical and health institutions associated with the South China seafood market case search and retrospective investigation, has found 27 cases, 7 of which are serious, The remaining cases are stable and controllable, and 2 cases are expected to be discharged from the hospital in the near future.
- Chinese health authorities on Tuesday said they are investigating 27 cases of viral pneumonia in central Hubei province, amid online speculation that it could be linked to the SARS flu-like virus that killed hundreds of people a decade ago.
- Chinese netizens on December 30 in the "weibo", "WeChat" and other online platforms, out of Wuhan City Health and Health Committee has issued an emergency notice, indicating that the city's medical institutions have been "unexplained pneumonia" patients, the first case appeared in the South China seafood city, and

Daily article list for 31 December 2019

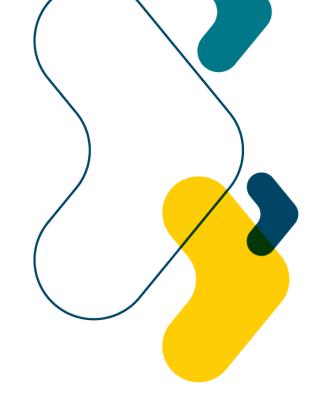
- ✓ Wuhan is now a number of unexplained pne...✓ China probes pneumonia outbreak for SARS...
- ✓ China investigates respiratory illness outbre...
- ✓ Internet crazy spread mainland China explo...
- Chinese officials investigate cause of pneu...
- ✓ National Health and Care Commission: 4 ca...
- Rumors of pneumonia cases reignite SARS f...
- China probes mystery pneumonia outbreak ...
- Registered 27 cases of viral pneumonia in c...

Early warning signal discovery

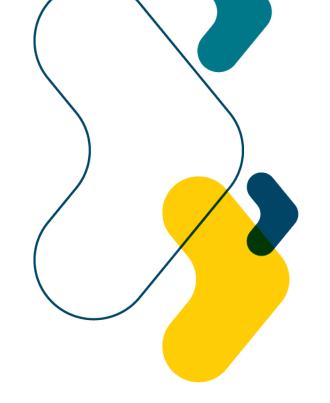
- Unknown unknowns
- ·Cluster + validate clusters (ea. 24h)
- Generate rules (per narrative)
- Collect articles (ongoing)
- Model topics (ea. 24h)
- Detect change points (ea. 24h)
- Show narrative (on demand)



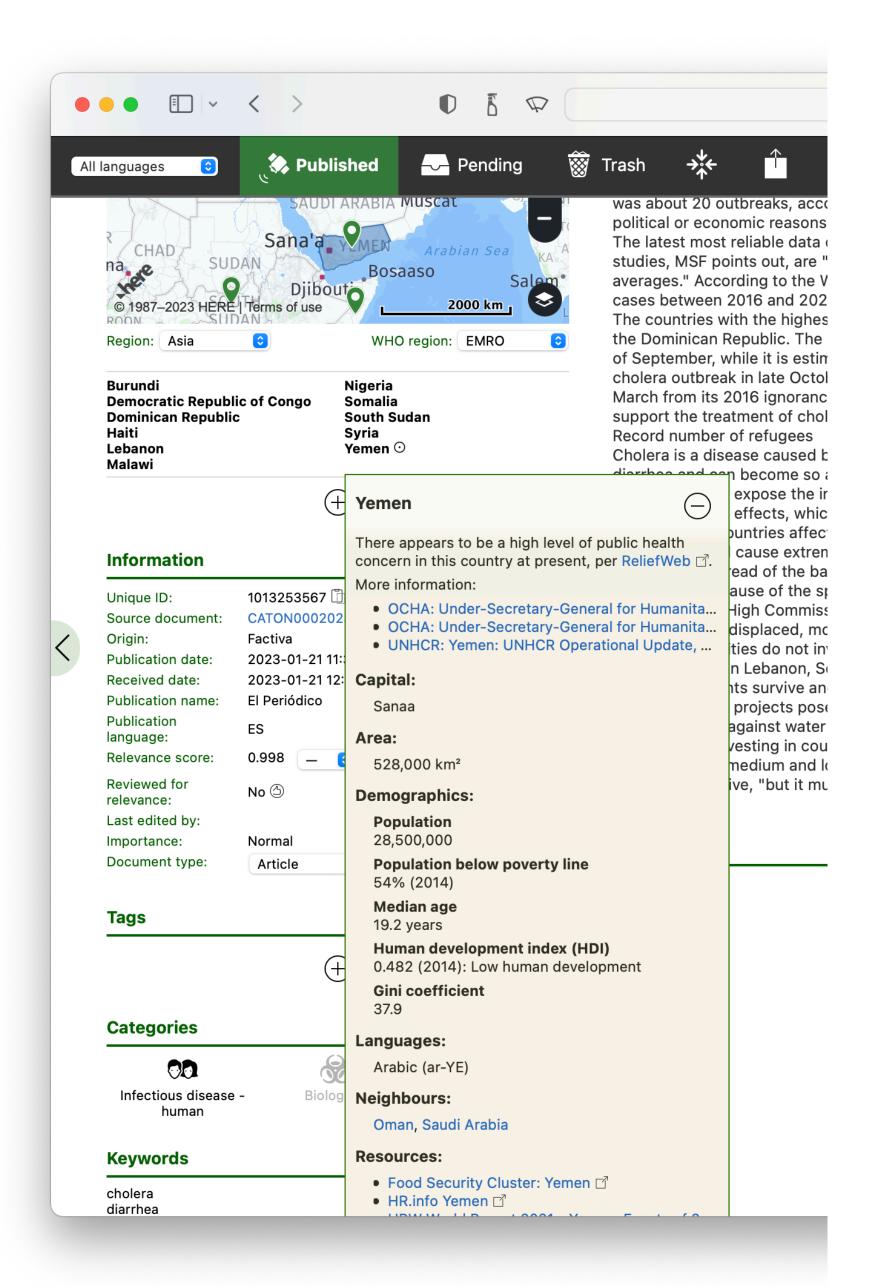
Categorization; all hazards/multidisciplinary

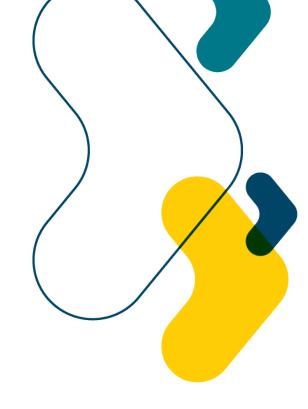


Multi lingual, updated regularly



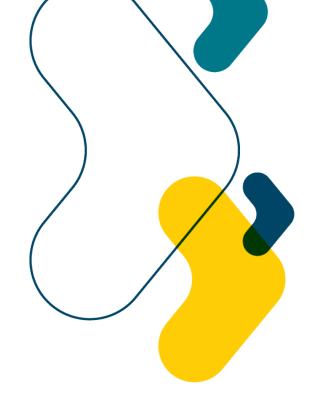
Case counting



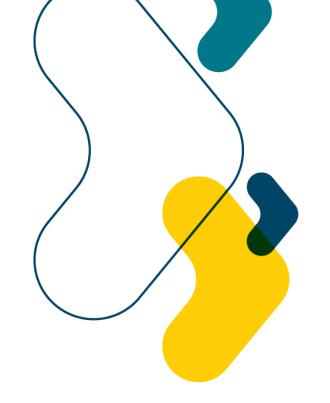


Location resolution

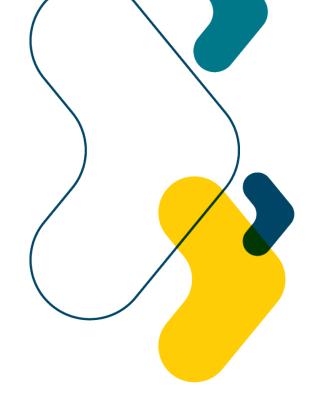
Integrated with ReliefWeb



Noise reduction: relevance scoring; near duplicate detection

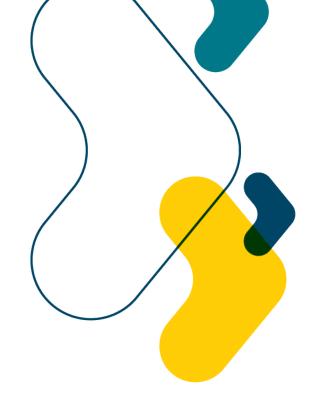


Reporting & alerting



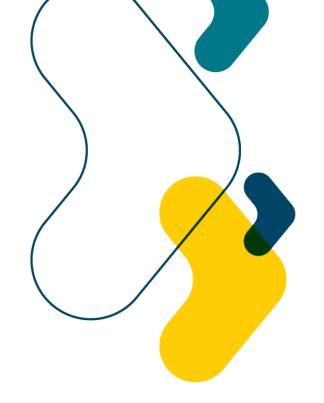
Ethics

Open source data; aggregated; human in the loop; public benefit



Supporting further research

PHAC collaborations with U de M, U of T, and more NRC collaborations with other agencies

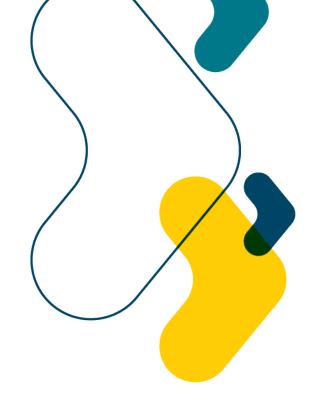


Takeaways

News is a rich data source for public health.

Natural language processing turns makes text into counts, maps, events.

GPHIN uses NLP to generate early warning hypotheses for public health.



Q?