

# COVID-19 seen through Wikidata





# Lane Rasberry

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School of Data Science  
University of Virginia

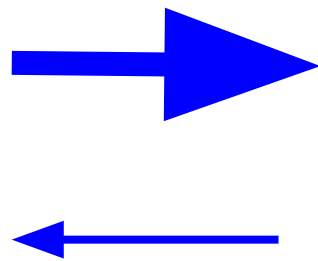
# Agenda

1. Why Wikidata matters
2. What Wikidata is
3. COVID-19 in Wikidata
4. You can edit
5. Questions

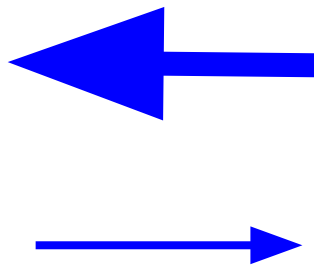
The background is a deep blue color with several stylized, glowing virus particles scattered across it. A prominent dark blue horizontal band runs across the middle of the image, containing white text. The text is in a bold, sans-serif font and reads: "Wikidata matters because it multiplies Wikipedia's impact".

**Wikidata matters because it  
multiplies Wikipedia's impact**

Google



Google





Location	Confirmed	Recovered	Deaths
<b>Worldwide</b>	<b>500,542</b>	<b>121,214</b>	<b>22,334</b>
<b>United States</b>	<b>69,219</b>	<b>616</b>	<b>1,054</b>
China	81,285	74,051	3,287
Italy	74,386	9,362	7,503
Spain	56,197	7,015	4,145

[More statistics](#)

Updated less than 17 mins ago · Source: [Wikimedia](#) · [About this data](#)

### Top results

[en.wikipedia.org/wiki/2020\\_coronavirus\\_pandemic\\_in\\_New\\_Yor...](https://en.wikipedia.org/wiki/2020_coronavirus_pandemic_in_New_Yor...)

#### 2020 coronavirus pandemic in New York (state) - Wikipedia

The 2020 coronavirus pandemic in New York is part of the ongoing worldwide pandemic of coronavirus disease 2019 (COVID-19). The first case of COVID-19 in ...

[Timeline](#) · [Shortage of protective gear](#) · [Government response](#) · [Effects on sports](#)



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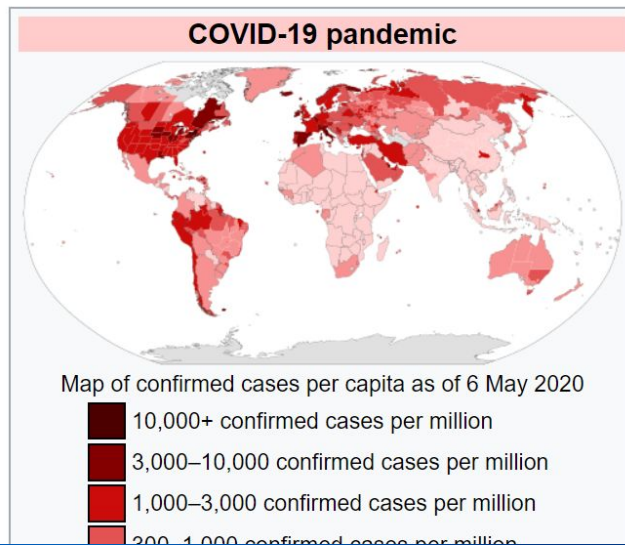
# COVID-19 pandemic



From Wikipedia, the free encyclopedia

The **COVID-19 pandemic**, also known as the **coronavirus pandemic**, is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by *severe acute respiratory syndrome coronavirus 2* (SARS-CoV-2). The outbreak was identified in Wuhan, China, in December 2019.<sup>[4]</sup> The World Health Organization declared the outbreak a **Public Health Emergency of International Concern** on 30 January, and a pandemic on 11 March.<sup>[6][7]</sup> As of 6 May 2020, more than 3.68 million cases of COVID-19 have been reported in over 187 countries and territories, resulting in more than 257,000 deaths. More than 1.2 million people have recovered.<sup>[5]</sup>

The virus is primarily spread between people during close contact,<sup>[c]</sup> often via **small droplets** produced by coughing,<sup>[d]</sup> sneezing, and talking.<sup>[8][9][11]</sup> The droplets usually fall to the ground or onto surfaces







Item [Discussion](#)

# COVID-19 pandemic (Q81068910)

## Statements

instance of



pandemic

edit

of

COVID-19

start time

11 March 2020

statement supported by

World Health Organization

number of deaths

6

point in time

20 January 2020

valid in place

Earth

Wuhan

has effect



Impact of the 2019–20 coronavirus pandemic on education

▼ 1 reference

reference URL

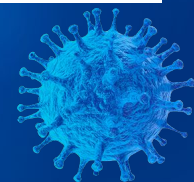
<https://en.unesco.org/covid19/educationresponse/consequences>

different from

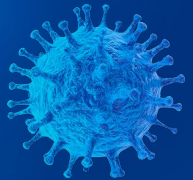


COVID-19

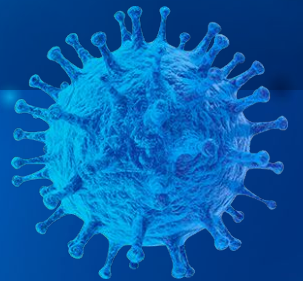
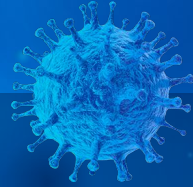
▼ 0 references



# COVID-19 in Wikidata



# Query Wikipedia



Dear Wiki,

Please show me X which have  
characteristic Y.

your friend,

Wikilover



**WIKIPEDIA**  
The Free Encyclopedia

 **Blueras**

Article

Talk

# Deaths in 2020

From Wikipedia, the free encyclopedia

Dear Wiki,

Please show me people who have  
died from COVID-19.

your friend,

Wikilover

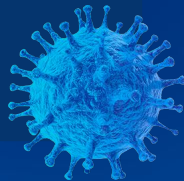
<i>Llorenç Cassi i Morató</i>	Catalan athlete	<i>track and field coach</i>	Spain	1940-05-14	2020-03-23	
José Folgado	Spanish professor	<i>senior lecturer politician economist</i>	Spain	1944-04-03	2020-03-23	
Maurice Berger	American art historian	<i>art historian journalist curator</i>	United States of America	1956-05-22	2020-03-23	
Lucien Sève	French philosopher and political activist	<i>philosopher political activist</i>	France	1926-12-09	2020-03-23	
Lucia Bosè	Italian actress	<i>model beauty pageant contestant film actor</i>	Italy Spain	1931-01-28	2020-03-23	



Dear Wiki,

Which country has highest  
percentage of COVID-19 confirmed  
cases?

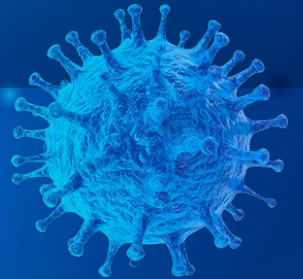
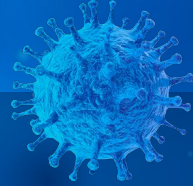
thx



- ▶ get list of sovereign states
- ▶ get counts of cases by state
- ▶ get population of states
- ▶ divide cases / population



# Infoboxes in Wikipedia articles





# Coronavirus disease 2019

Language



Download PDF



Watch



Edit

This article is about the disease. For the virus, see Severe acute respiratory syndrome coronavirus 2. For the pandemic, see COVID-19 pandemic.

**Coronavirus disease 2019 (COVID-19)** is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).<sup>[9]</sup> It was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in an ongoing pandemic.<sup>[10][11]</sup> As of 6 May 2020, more than 3.74 million cases have been reported across 187 countries and territories, resulting in more than 263,000 deaths. More than 1.23 million people have recovered.<sup>[8]</sup>

Common symptoms include fever, cough, fatigue, shortness of breath, and loss of smell and taste.<sup>[5][12][13]</sup> While the majority of cases result in mild symptoms, some progress to viral pneumonia, multi-organ failure, or cytokine storm.<sup>[10][14][15]</sup> The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days.<sup>[5][16]</sup>

The virus is primarily spread between people during close contact,<sup>[a]</sup> often via small droplets produced by coughing,<sup>[b]</sup> sneezing, and talking.<sup>[6][17][19]</sup> The droplets usually fall to the ground or onto surfaces rather than remaining in the air over long distances.<sup>[6]</sup> People may also become infected by touching a contaminated surface and then touching their face.<sup>[6][17]</sup> On surfaces, the amount of virus declines over time until it is insufficient to remain infectious, but it may be detected for hours or days.<sup>[6][19][20]</sup> It is most contagious during the first three days after the onset of symptoms, although spread may be possible before symptoms appear and in later stages of the disease.<sup>[21]</sup> The standard method of diagnosis is by real-time reverse transcription polymerase chain reaction (rRT-PCR) from a

## Coronavirus disease 2019 (COVID-19)

### Other names

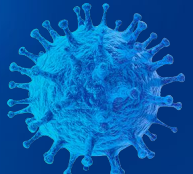
- Coronavirus
- COVID
- 2019-nCoV acute respiratory disease
- Novel coronavirus pneumonia<sup>[1][2]</sup>

### Common symptoms:

- Fever: 83–99%
- Loss of Appetite: 40–84%
- Fatigue: 44–70%
- Loss of smell: 15 to 30%
- Shortness of breath: 31–40%
- Cough: 59–82%
- Coughing up

### In severe disease:

- Difficulty walking
- Confusion
- Bluish face or lips
- Coughing up blood
- Persistent chest pain
- Decreased white blood cells





# Coronavirus disease 2019

Language

Download PDF Watch Edit

This article is about the disease. For the virus, see Severe acute respiratory syndrome coronavirus 2. For the pandemic, see COVID-19 pandemic.

**Coronavirus disease 2019 (COVID-19)** is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).<sup>[9]</sup> It was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in an ongoing pandemic.<sup>[10][11]</sup> As of 6 May 2020, more than 7.4 million cases have been reported across 187 countries and territories, resulting in more than 263,000 deaths. More than 1.23 million people have recovered.<sup>[8]</sup>

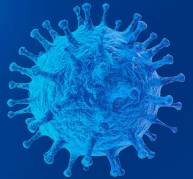
Common symptoms include fever, cough, fatigue, shortness of breath, and loss of smell and taste.<sup>[5][12][13]</sup> While the majority of cases result in mild symptoms, some progress to viral pneumonia, multi-organ failure, or cytokine storm.<sup>[10][14][15]</sup> The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days.<sup>[5][16]</sup>

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## Coronavirus disease 2019 (COVID-19)

- Other names**
- Coronavirus
  - COVID
  - 2019-nCoV acute respiratory disease
  - Novel coronavirus pneumonia<sup>[1][2]</sup>

Common symptoms:	In severe disease:
Fever: 83–99%	Difficulty walking
Loss of Appetite: 40–84%	Confusion
Fatigue: 44–70%	Bluish face or lips
Loss of smell: 15 to 30%	Coughing up blood
Shortness of breath: 31–40%	Persistent chest pain
Cough: 59–82%	Decreased white blood cells
Coughing up	





<b>Symptoms</b>	Fever, cough, shortness of breath, loss of smell, none <sup>[4][5][6]</sup>
<b>Complications</b>	Pneumonia, viral sepsis, acute respiratory distress syndrome, kidney failure, cytokine release syndrome
<b>Usual onset</b>	2–14 days (typically 5) from infection
<b>Causes</b>	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
<b>Risk factors</b>	Travel, viral exposure
<b>Diagnostic method</b>	rRT-PCR testing, CT scan
<b>Prevention</b>	Hand washing, face coverings, quarantine, social distancing <sup>[7]</sup>
<b>Treatment</b>	Symptomatic and supportive

# Translate terms once, use forever

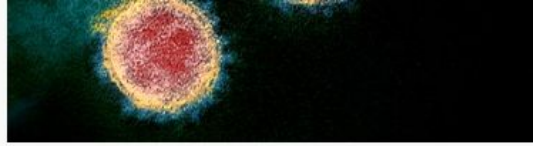
- ▶ fever
- ▶ shortness of breath
- ▶ hand washing
- ▶ quarantine
- ▶ viral exposure
- ▶ social distancing
- ▶ supportive treatment
- ▶ acute respiratory distress syndrome



# French

# Urdu

# Catalan



خردبینی تصویر میں سارس کووی 2 کو دیکھا جاسکتا ہے۔  
وائرس کے ذرات کے باہری کناروں پر نوکیں کسی تاج  
(crown) سے ملتی ہیں، انہی خصوصیات کی وجہ سے اس  
مرض کا نام کورونا پڑا۔

/kəˈrounə vaɪrəs diˈziːz/

مہلک تنفسی انفیکشن [5]

بخار، کھانسی، گھٹن [6]

وائٹل نمونیا، ARDS، گردہ فیل

سارس کووی 2

rRT-PCR ٹیسٹنگ، امیونوسے، سی ٹی اسکین

ہاتھ دھونا، کھانسی کے آداب، بیماروں سے دوری

معالجتی تدابیر علامتی اور علاج

1,273,990 مصدقہ مریض

69,444 (مصدقہ مریضوں کا 5.5%)

تلفظ

تخصص

علامات

طبی

پیدگیان

سبب

تشخیصی

طریقہ

تدارک

معالجتی تدابیر

تعدد

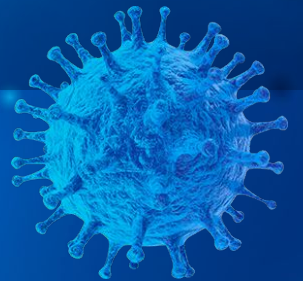
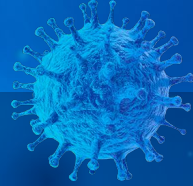
اموات

<b>Causes</b>	Coronavirus 2 du syndrome respiratoire aigu sévère
<b>Diagnostic</b>	PCR sur prélèvement nasopharyngé ou bronchique et scanner des poumons
<b>Différentiel</b>	Infection virale à H5N1, H7N9, grippe et toutes infections pulmonaires bactériennes et virales y compris MERS, SRAS et tuberculose
<b>Traitement</b>	Soins de support (d), antiviral, oxygénothérapie normobare, immunothérapie, ivig (en) et immunosuppresseur

Clínica-tractament	
<b>Símptomes</b>	tos, rinitis, febre, insuficiència respiratòria, cefalàlgia, miàlgia, fatiga muscular, hemoptisi, diarrea, dispnea, limfopènia, síndrome del destret respiratori de l'adult, anèmia, cytokine release syndrome (en) <sup>?</sup> , síndrome gripal, anòsmia, agèusia, manifestació neurològica, hipòxia, inflamació, calfred i nasal congestion (en) <sup>?</sup>
<b>Exàmens</b>	examen de COVID-19 <sup>?</sup>
<b>Tractament</b>	Atenció de suport, antivíric, oxygen therapy (en) <sup>?</sup> , immunoteràpia, teràpia amb immunoglobulina, immunosupressor i antiinflamatori <sup>?</sup>
<b>Medicació</b>	[Expand]
Patogènia	
<b>Transmissió patògena</b>	transmissió aèria, transmissió per secrecions respiratòries, transmissió

18	mental depression Q4340209	bn	bn
		en mental depression	en State of low mood
		hi अवसाद	hi एक तरह की मानसिक बीमारी या अशांति।
19	throat Q16364	bn	bn
		en throat	en anterior part of the neck, in front of the vertebra
		hi	hi
20	immunology Q101929	bn	bn
		en immunology	en branch of medicine studying the immune system
		hi प्रतिरक्षा विज्ञान	hi

**Map the world**



Dear Wiki,

Please show me hospitals by  
location.

your friend,

Wikilover

Wikidata Query

Examples Help Tools

Query Helper

+ Filter

any instance of hospital

any subclass of

+ Show coordinate location

Limit

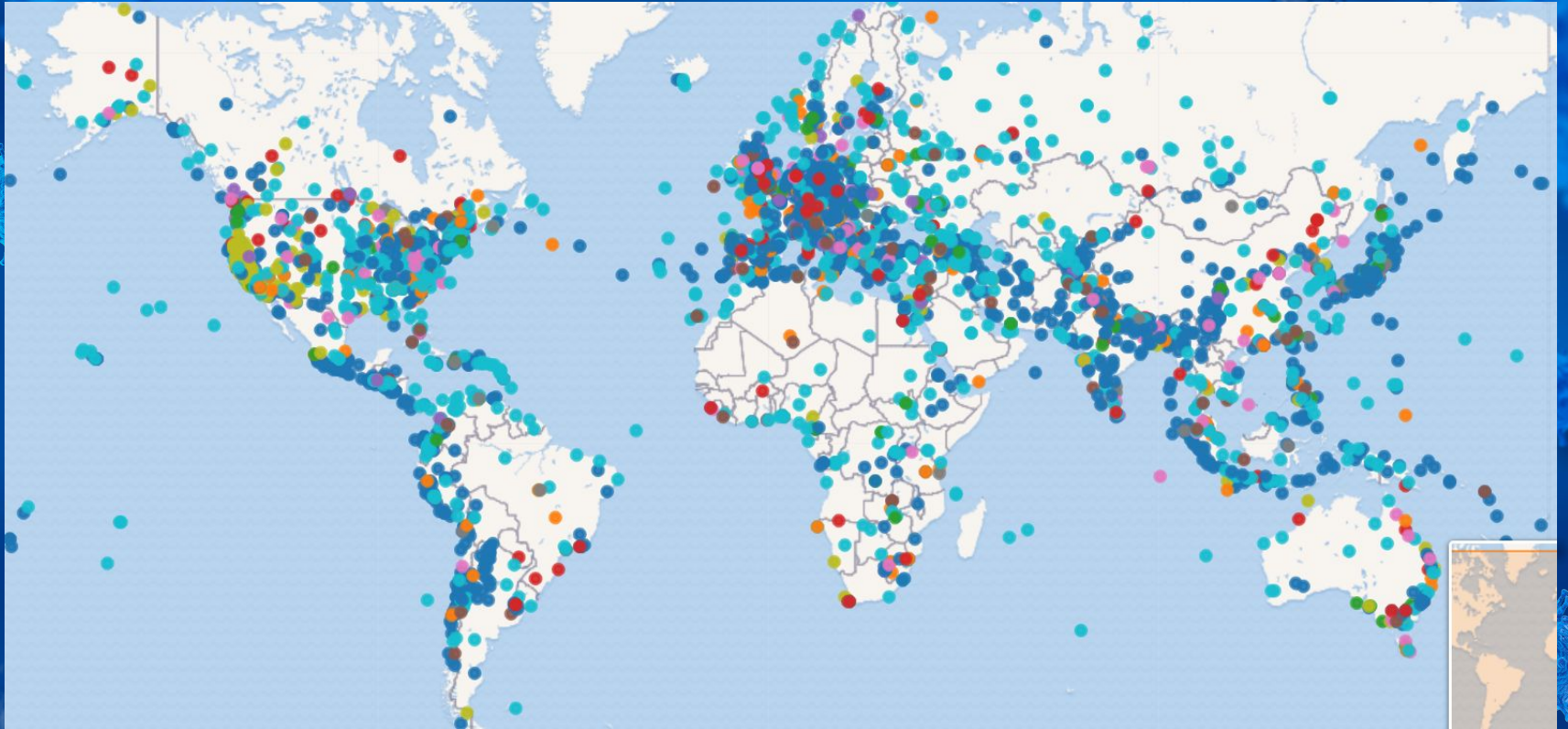
```
1 #Map of hospitals
2 #added 2017-08
3 #defaultView:Map
4 SELECT * WHERE {
5   ?item wdt:P31*/wdt:P279* wd:Q16917;
6   wdt:P625 ?geo .
7 }
```



Dear Wiki,

Please show me disasters by  
location.

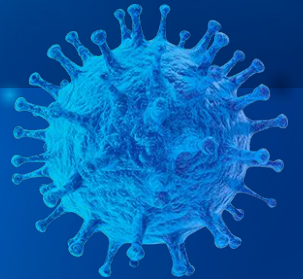
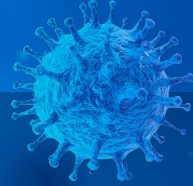
your friend,  
Wikilover







**Browse academic  
publications**



# Academic publication

Wikipedia is a summary of reliable sources, such as articles from scholarly journals.

## Why Medical Schools Should Embrace Wikipedia: Final-Year Medical Student Contributions to Wikipedia Articles for Academic Credit at One School

Amin Azzam, MD, MA, David Bresler, MD, MA, Armando Leon, MD, Lauren Maggio, PhD, Evans Whitaker, MD, MEdS, James Holman, MD, Jake Ostrowitz, Valerie Swidner, Lane Rasberry, Kingsley Chokidze, Fred Trotter, Will Ross, and Jack D. McCue, MD

### Abstract

#### Problem

Most medical students use Wikipedia as an information source, yet medical schools do not train students to improve Wikipedia or use it critically.

#### Approach

Between November 2013 and November 2015, the authors offered fourth-year medical students a credit-bearing course to edit Wikipedia. The course was designed, delivered, and evaluated by faculty, medical librarians, and personnel from WikiProject Medicine, Wikipedia Education Foundation, and Translators Without Borders. The authors assessed the effect of the students' edits on Wikipedia's content, the effect of the

course on student participants, and readership of students' chosen articles.

#### Outcomes

Forty-three enrolled students made 1,528 edits (average 36/student), contributing 493,594 content bytes (average 11,488/student). They added higher-quality and removed lower-quality sources for a net addition of 274 references (average 6/student). As of July 2016, none of the contributions of the first 28 students (2013, 2014) have been reversed or vandalized. Students discovered a tension between content-reversal and readability/translatability, yet readability of most articles increased. Students felt they

improved their articles, enjoyed giving back "specifically to Wikipedia," and bolstered their sense of physician responsibilities in the socially networked information era. During only the "active editing months," Wikipedia traffic statistics indicate that the 43 articles were collectively viewed 1,116,065 times. Subsequent to students' efforts, these articles have been viewed nearly 22 million times.

#### Next Steps

If other schools replicate and improve on this initiative, future multi-institution studies could more accurately measure the effect of medical students on Wikipedia, and vice versa.

#### Problem

The rise and spread of Internet accessibility has created an unprecedented resource for the dissemination of medical information, as well as an invaluable tool for health care providers and the general public alike. At the same time, opportunities for the rapid spread of misinformation or the misinterpretation of medical facts have never been greater. Clinicians must sometimes gently redirect patients who are convinced that they have some rare disease

they have read about on the Internet. Although medical educators typically train students to address patient misperceptions in clinical practice, they are not leveraging clinician and medical student knowledge to improve the quality of the information patients and others find online.

Wikipedia is a free, online, multilingual encyclopedia that is continually and collaboratively created. Anyone with an Internet connection can edit its articles. One of the most frequently visited Web sites worldwide, it is among the leading sources of health information for medical professionals and health care consumers alike.<sup>1</sup> At the end of 2013, Wikipedia's medical content included over 155,000 articles written in 255 languages, supported by more than 950,000 references.<sup>2</sup> Despite its increasingly prevalent use as a medical information resource in clinical practice, clinical instructors and faculty members often dissuade medical students from using Wikipedia, citing concern for its perceived inaccuracies and lack of traditional editorial controls.<sup>3</sup>

Although physicians and medical students are encouraged to contribute to

traditional sources of medical knowledge (e.g., textbooks and journals), the idea of benefiting from active contribution to crowd-sourced resources such as Wikipedia remains the perspective of a minority or fringe group within the academic medicine community.

We believe that not contributing to crowd-sourced resources represents a lost opportunity for enriching medical students' learning and for disseminating more accurate, up-to-date medical information to Wikipedia's readers worldwide.

#### Approach

We created what is, to our knowledge, the first formal medical school course worldwide through which medical students actively work to improve Wikipedia's health-related articles. We expected enrolled students to hone their information retrieval and assessment skills,<sup>4</sup> practice communicating medical knowledge to an exceptionally broad global audience,<sup>5</sup> and expand their sense of health care providers' roles in the Internet age. We designed our course with

Please see the end of this article for information about the authors.

Correspondence should be addressed to Amin Azzam, UCSF Department of Psychiatry, Box 0984-MPL, 401 Parnassus Ave., San Francisco, CA 94143-0984; telephone: (415) 476-7836; e-mail: Amin.Azzam@ucsf.edu; Twitter: @AminAzzam.

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Acad Med. XXXX(X)000-000.

First published online  
doi:10.1093/ACMED/XXX/XXX/00000001381  
Supplemental digital content for this article is available at <http://links.lww.com/ACAD/MEDIA386>.

topic

## coronavirus disease (Q18975243)

A coronavirus disease (COVID; ), coronavirus respiratory syndrome, coronavirus pneumonia, coronavirus flu, or members of the coronavirus (CoV) family. Coronaviruses cause different coronavirus diseases including severe East respiratory syndrome (MERS), and coronavirus disease 2019 (COVID-19). Some strains of coronaviruses can cause a coronavirus outbreak, caused by COVID-19, was declared a pandemic by the World Health Organization (WHO) ([Wikipedia](#))

### Recently published works on the topic

Show  entries

Date	Work
2020-12-01	<a href="#">Renin-angiotensin system inhibitors improve the clinical outcomes of COVID-19 patients with hypertension</a>
2020-12-01	<a href="#">Transcriptomic characteristics of bronchoalveolar lavage fluid and peripheral blood mononuclear cells in COVID-19 patients</a>

# Authors

## Authors publishing about the topic

Show  entries

Count	Author
27	<a href="#">Elisabeth Mahase</a>
25	<a href="#">Viroj Wiwanitkit</a>
23	<a href="#">Gareth Iacobucci</a>
17	<a href="#">Abi Rimmer</a>
14	<a href="#">Beuy Joob</a>
14	<a href="#">Didier Raoult</a>

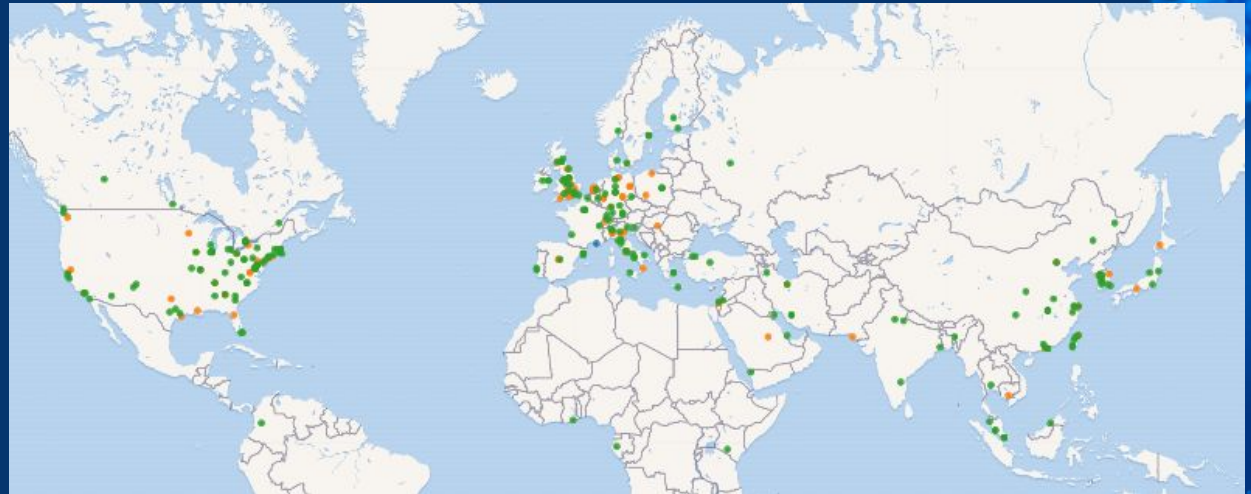
# Map of organizations associated with works about the topic

## Topics

### Co-occurring topics

Show  entries

Count	Topic
5882	COVID-19
5343	SARS-CoV-2
889	COVID-19 pandemic
682	pandemic
48	severe acute respiratory syndrome
39	epidemiology
32	Middle East respiratory syndrome



# COVID-19 (Q84263196)

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, China, and has since spread globally, resulting in an ongoing pandemic. As of 9 May 2020, more than 4 million cases have been reported across 187 countries and territories, resulting in more than 277,000 deaths. ... (from the [English Wikipedia](#))

## Clinical trials

Show  entries

Search:

Start date	Trial	Intervention	Sponsor
2020-05-10	<a href="#">COVID-19 Pneumonitis Low Dose Lung Radiotherapy (COLOR-19)</a>		
2020-03-16	<a href="#">Safety and Immunogenicity Study of 2019-nCoV Vaccine (mRNA-1273) for Prophylaxis of SARS-CoV-2 Infection (COVID-19)</a>	mRNA-1273	National Institute of Allergy and Infectious Diseases
2020-03-12	<a href="#">Adaptive COVID-19 Treatment Trial</a>		National Institute of Allergy and Infectious Diseases
2020-03-01	<a href="#">Nitric Oxide Gas Inhalation for Severe Acute Respiratory Syndrome in COVID-19.</a>	nitric oxide (radical)	
2020-02-20	<a href="#">The Efficacy and Safety of Thalidomide in the Adjuvant Treatment of Moderate New Coronavirus (COVID-19) Pneumonia</a>	thalidomide	
2020-02-14	<a href="#">Efficacy and Safety of Corticosteroids in COVID-19</a>	methylprednisolone	
2020-02-14	<a href="#">Efficacy and Safety of Corticosteroids in COVID-19</a>	prednisolone	
2020-02-14	<a href="#">Efficacy and Safety of Corticosteroids in COVID-19</a>	methylprednisolone acetate	

# You can play with Wikidata and edit!

- ▶ [Wikidata WikiProject COVID-19](#)
- ▶ [Scholia](#)
- ▶ [Wikidata Project Chat](#)
- ▶ [Wikidata Query Service](#)



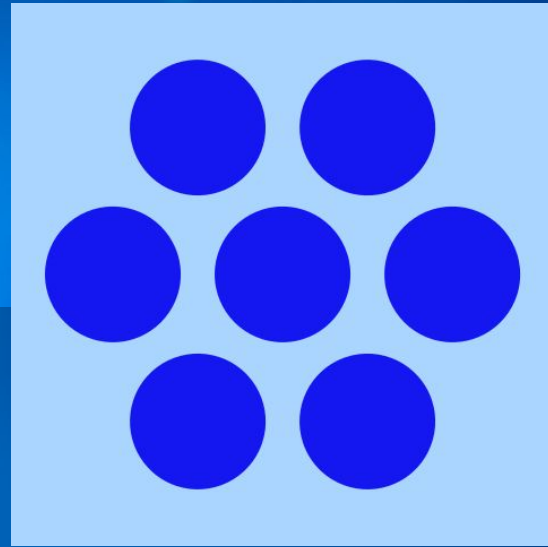
Thanks

# The Signpost



# SWASTHA

Special Wikipedia Awareness Scheme for The Healthcare Affiliates



# Lane Raspberry

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slides from SlidesCarnival.com