

# Using Wikipedia to disseminate health research



## 22 November 2022

Adam Harangozó

NIHR Centre for Engagement and Dissemination

"Wikipedia is today the gateway through which millions of people now seek access to knowledge which not long ago was only available using tools constructed and maintained by professional scholars."

> Professor William Cronon, President American Historical Association, 2012

"It's easier to fix Wikipedia than it is to convince the half a billion people each month who use it, not to."

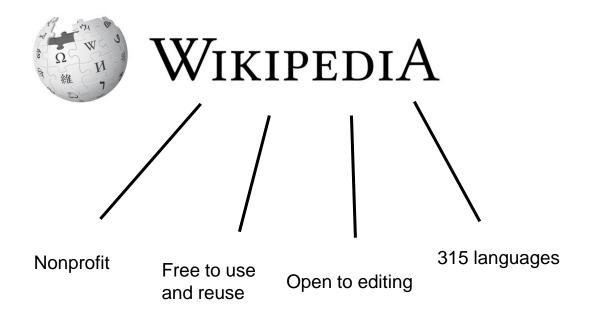
Dr. James Heilman University of British Columbia, Wiki Project Med Foundation, 2015



## Wikipedia is an encyclopedia

- → summarises high-quality sources in an accessible language
- → starting point for learning, provides links to further, reliable sources

## What is Wikipedia?





## What is Wikipedia?

Total page views

**10B** 

October 4 -0.38% month over month



**112B** ↑ 16.23% year over year

Last 12 Months (Nov 2021 - Oct 2022)

Unique devices

836M

October 1 6.00% month over month

**792M** ↑ 11.30% year over year

12 Month Average (Nov 2021 - Oct 2022)

Page views by country

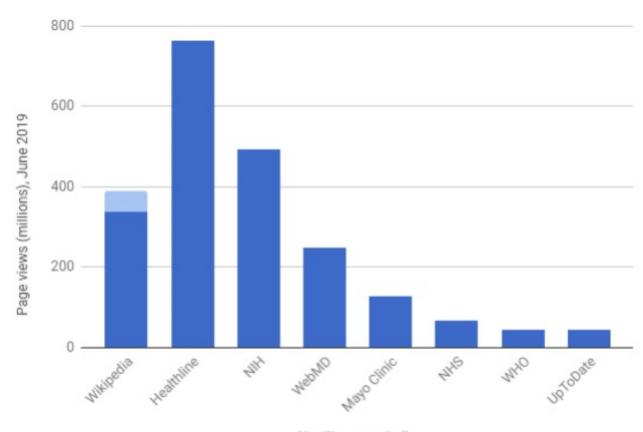
Countries with the most views for October

3B	United States of A
798M	United Kingdom
718M	India
354M	Canada

Medical articles (2021)		
Mon	Pageviews	
Jan 21	175,456,213	
Feb 21	163,507,207	
Mar 21	178,792,755	
Apr 21	170,540,823	
May 21	170,756,443	
Jun 21	151,955,765	
Jul 21	149,295,954	
Aug 21	148,782,925	
Sep 21	139,987,593	
Oct 21	136,480,415	
Nov 21	130,675,700	
Dec 21	132,275,835	
Total	1,848,507,628	

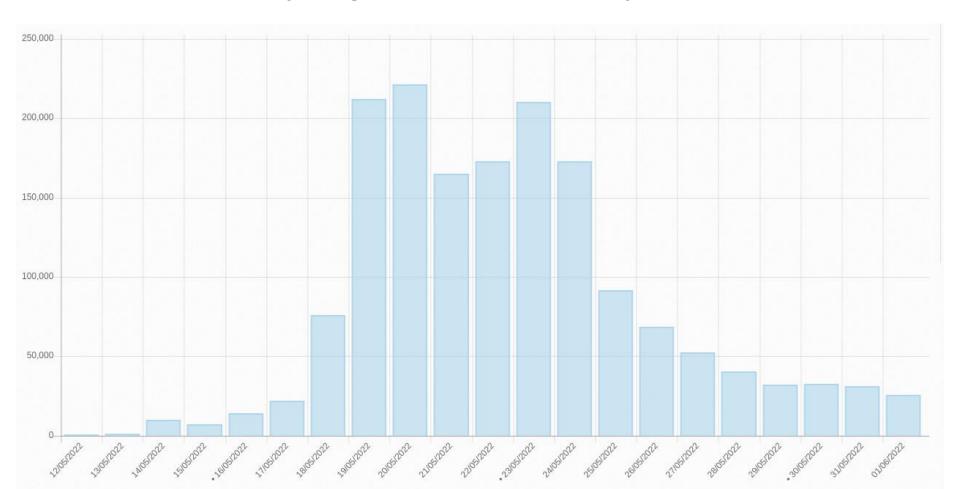
- 50.000 medical articles
- Nearly 2 billion pageviews in 2021
- 50-70% of medical doctors use it
- Top site for medical students
- WikiProject
   Medicine
  - Assessment
  - Monitoring
  - Improving





Healthcare website

## Daily pageviews for "Monkeypox"



Wikipedia is the encyclopedia that anyone can edit...

... but that doesn't mean you can say just anything

## Wikipedia policies ensuring reliability

- Neutral point of view (factual tone)
- Verifiability (through reliable sources)
- No original research (no personal interpretation)



## From the medical/NIHR point of view

#### Preferred sources are **secondary sources**

- Literature reviews, meta-analyses
- Health technology assessments, clinical practice guidelines
- Textbooks, academic books

#### Avoid using **primary sources**

Research papers, clinical trial studies

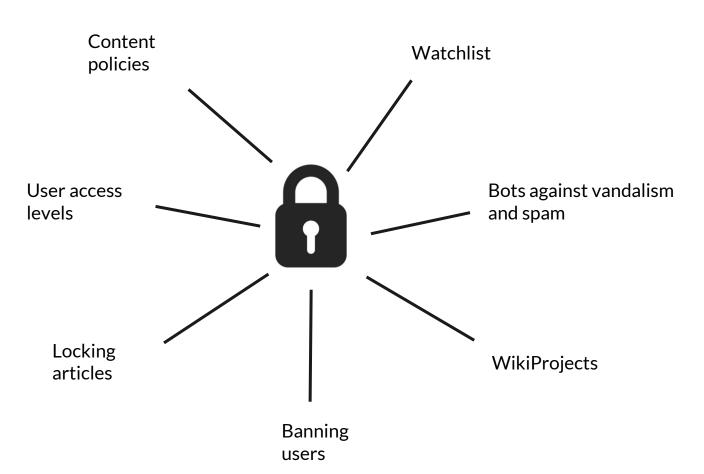
#### Why?

- Primary research is often exploratory, weight of findings is unclear
- You are not allowed to make your own analysis and synthesis of sources but it is done for you in secondary sources.

### Exceptions, flexibility:

- You can refer to primary sources when describing future research directions
- You can cite the primary source along with the secondary one
- Large, important studies can be mentioned within context

## Safety mechanisms of Wikipedia



### 2022 monkeypox outbreak: Revision history

#### **Compare selected revisions**

- (cur | prev) 08:08, 17 November 2022 CoryGlee (talk | contribs) . . (180,381 bytes) (+31) . . (→Timeline of first deaths by country or territory (in countries with initial 2022 detection from 6 May onwards): Adding Chile as per referenced in infobox) (undo | thank) (Tags: Mobile edit, Mobile web edit)
- (cur | prev) O 22:19, 16 November 2022 INglEroC (talk | contribs) . . (180,350 bytes) (0) . . (Update totals) (undo | thank) (Tags: Mobile edit, Mobile web edit, Advanced mobile edit)
- (cur | prev) O 21:41, 14 November 2022 Jackylui2000 (talk | contribs) . . (180,350 bytes) (+1) . . (undo | thank) (Tags: Visual edit, Mobile edit, Mobile web edit)
- (cur | prev) O 18:48, 12 November 2022 Vinhson27 (talk | contribs) . . (180,349 bytes) (0) . . (undo | thank)
- (cur | prev) 18:44, 12 November 2022 Vinhson27 (talk | contribs) . . (180,349 bytes) (-197) . . (→Timeline of first confirmed cases by country or territory) (undo | thank)
- (cur | prev) O 23:07, 7 November 2022 Mikeblas (talk | contribs) . . (180,546 bytes) (+28) . . (fix duplicate ref def) (undo | thank)
- (cur | prev) O 21:49, 7 November 2022 Citation bot (talk | contribs) . . (180,518 bytes) (-110) . . (Add: volume, pmid, pmc. Removed proxy/dead URL that duplicated identifier. Removed access-date with no URL. | Use this bot. Report bugs. | Suggested by Abductive | #UCB toolbar) (undo)
- (cur | prev) O 12:35, 7 November 2022 2400:4053:6901:fa00:1017:bcce:a0d6:c6d5 (talk) . . (180,628 bytes) (+714) . . (Wastewater surveillance infromation) (undo) (Tag: Visual edit)
- (cur | prev) O 22:25, 6 November 2022 INgIEroC (talk | contribs) . . (179,914 bytes) (0) . . (Update totals) (undo | thank) (Tags: Mobile edit, Mobile web edit, Advanced mobile edit)
- (cur | prev) O 08:57, 6 November 2022 Citation bot (talk | contribs) . . . (179,914 bytes) (+18) . . (Alter: journal. Add: bibcode, s2cid, authors 1-1. Removed parameters. Some additions/deletions were parameter name changes. | Use this bot. Report bugs. | Suggested by Headbomb | #UCB\_toolbar) (undo)
- (cur | prev) O 00:29, 6 November 2022 INglEroC (talk | contribs) . . (179,896 bytes) (0) . . (Update totals) (undo | thank) (Tags: Mobile edit, Mobile web edit, Advanced mobile edit)

## What is a Wikipedian in residence?

The British Museum





## wellcome collection

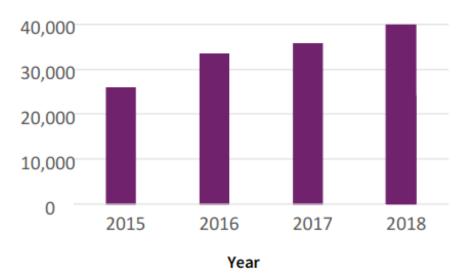








# of referrals (clicking from Wikipedia directly to the Cochrane Library)



## Wikipedian in residence at the NIHR

#### Barrett's esophagus

From Wikipedia, the free encyclopedia

Screening [edit | edit source]

Screening endoscopy is recommended among males over the age of 60 who have reflux symptoms that are of long duration and not controllable with treatment. Among those not expected to live more than 5 years screening is not recommended.

The Seattle protocol is used commonly in endoscopy to obtain endoscopic biopsies for screening, taken every 1 to 2 cm from the gastroesophageal junction.

Since the COVID-19 pandemic In Scotland, the local NHS started using a swallowable sponge (Cytosponge) in hospitals to collect cell samples for diagnosis.<sup>[17]</sup> Preliminary studies have shown this diagnostic test to be a useful tool for screening people with heartburn symptoms and improved diagnosis.<sup>[18][19]</sup>

#### Fluvoxamine

From Wikipedia, the free encyclopedia

#### Anxiety disorders [edit]

Fluvoxamine is effective for social phobia in adults.[29]

Fluvoxamine is also effective for treating a range of anxiety disorders in children and adolescents, including generalized anxiety disorder, social anxiety disorder, panic disorder and separation anxiety disorder.<sup>[30][31][32]</sup>



#### British Pakistanis

From Wikipedia, the free encyclopedia

Health and social issues [edit | edit | source]

**Health** [edit | edit source]

Pakistanis together with Bangladeshis in the UK have poor health by many measures, for instance there is a fivefold rate of diabetes.[169]

Pakistani men have the highest rate of heart disease in the UK.[170]

In the UK, women of South Asian heritage, including British Pakistanis, are the least likely to attend breast cancer screening. A study showed that British-Pakistani women faced cultural and language barriers and were not aware that breast screening takes place in a female-only environment.[171][172][173]

#### Language barrier

From Wikipedia, the free encyclopedia

Consequences [edit | edit source]

Language barriers can affect access to healthcare. For example, a study showed that British-Pakistani women who faced cultural and language barriers were less likely to attend breast screening because they were not aware that it takes place in a female-only environment.[10][11][12]



#### Cancer screening

From Wikipedia, the free encyclopedia

**Cancer screening** aims to detect cancer before symptoms appear.<sup>[1]</sup> This may involve blood tests, urine tests, DNA tests, other tests, or medical imaging.<sup>[1][2]</sup> The benefits of screening in terms of cancer prevention, early detection and subsequent treatment must be weighed against any harms.

#### Attendance [edit]

For detecting cancer early all eligible people need to go to screenings but disadvantaged groups face different barriers that lead to lower attendance rates.[11]

People with mental illnesses are nearly 25% less likely to attend cancer screening appointments. Women with schizophrenia are the least likely to be screened. But even people with common mood disorders such as anxiety and depression are less likely to attend than the general population. The lower attendance numbers are thought to be one of the reasons why people with mental illnesses tend to die 15–20 years earlier than the general population. [12][13]

In Northern Ireland women with mental health problems were shown to be less likely to attend screening for breast cancer, than women without. The lower attendance numbers remained the same even when marital status and social deprivation were taken into account.<sup>[14][15]</sup>

People from minority ethnic communities are also less likely to attend cancer screening. In the UK, women of South Asian heritage are the least likely to attend breast cancer screening. Research is still needed to identify specific barriers for the different South Asian communities. For example, a study showed that British-Pakistani women faced cultural and language barriers and were not aware that breast screening takes place in a female-only environment.<sup>[16][17][18]</sup>

Deprivation can also reduce the numbers of people attending cancer screening. A UK study showed that making the screening easily accessible increased take-up. Providing mobile screening units parked in supermarket car parks, for example, in the poorer areas of Manchester was an acceptable way of offering lung checks to high-risk groups such as smokers. A simple test measured obstruction to the flow of air in and out of the lungs. A third of the tests showed airflow obstruction, a sign of chronic obstructive pulmonary disease which is a risk factor for lung cancer and other health conditions. [19][20]

## Case study: Multiple long-term conditions workshop



Multimorbidity article <u>before</u> and <u>after</u> the workshop.

## Dissemination through Wikipedia can offer...

- Transparent, collaborative platform
- Reaching a wide audience, sharing evidence where they look for it
- Sharing research in an accessible way
- Quickly updatable with new research
- Can be translated to other languages (Global health)

+

Shows up in Altmetric score

#### For medical students:

- critical assessment of literature
- sharing medical information in plain language
- culture of open access
- having an impact early on

## Project opportunities

- 1. Introduce research teams to Wikipedia (webinar)
- 2. Workshops aiming to update knowledge on a specific topic (like MLTC, max 20-30 people per event)
- 3. Teaching how to edit Wikipedia for those interested (small teams, individuals)
- 4. Discuss longer-term integration of Wikipedia in research practices