

The Copenhagen cholera epidemic 1853 in contemporary Danish newspaper prose: Some back-of-an-envelope calculations

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ABSTRACT

A tentative analysis of how the cholera epidemic 1853 is covered in contemporary Danish newspapers. Words related to the epidemics increases rapidly in frequency at the outbreaks, but decreases much more slowly. Obviously the public was not prepared for the appearance, but the discussions of the outbreak continues several years after. The temporal distribution of trigrams containing locations (like *cholera* in *place name*) and temporal info (like *cholera* er, har or havde, i.e., is, has and had followed by some word, often an adjective) follow the outbreak as well.

Introduction

Inspired by the fact that we were all hiding away from the Covid-19 2020 – 2021, I wanted to take a closer look at some other epidemic. My hope was to find patterns of change in language use mirroring sentiments and attitudes expressed in words, bigrams and trigrams and frequency distributions. I started to write this May 2020 and completed it about two years later. My original idea was to analyze the Spanish flu 1918 – 1919.¹ We have as yet little freely available data in our public corpora from that period, so I turned my attention to the Cholera epidemic in Copenhagen 1853. At the time, Copenhagen had around 130.000² inhabitants out of which 7.219 were diagnosed as having the disease out of which 4.737 (56,7%) died. Christian Molbech writes in a letter to Christian Knud Frederik Molbech, the July 3, 1853:

The first cholera case was found as early as the 12th June (i.e., the day before the opening of the parliament in June) — a young man from the area close to the naval barracks, who for quite some time had worked on a dredge. He has recovered, and was released from hospital the 25th. The authorities were able to conceal the earliest few cases for a fortnight.³

The epidemic spread from Copenhagen to other areas. Outside the capital 1.951 fatal cases were reported.⁴

¹ I have a personal relation to that outbreak. My grandfather died in it when my father was three years old and this affected everything that followed in my family's history.

² <http://www2.kb.dk/udstillinger/medhist/kolera/koebenhavn1853.htm>

³ Translated by the author. <https://bit.ly/3cOzlAg>

⁴ https://da.wikipedia.org/wiki/Koleraepidemien_i_K%C3%B8benhavn_1853

The spread of an infectious disease does not occur in a vacuum; the Copenhagen epidemic is a part of the cholera pandemic (1846-1860)⁵ which is the third out of seven global outbreaks.⁶

Here I present some data analyses: (1) The number of newspaper articles mentioning *epidemi*, *pest*, *kolera* and *cholera* through the period 1846 to 1860 (Figure 1). (2) I repeated that analysis with the frequencies of words rather than articles in weekly aggregations of texts. (3) Finally I visualize a set of trigrams extracted from the corpus.

Everything you need to check or repeat or go further in these analyses is available on the Internet, including the scripts I have used in my calculations.⁷

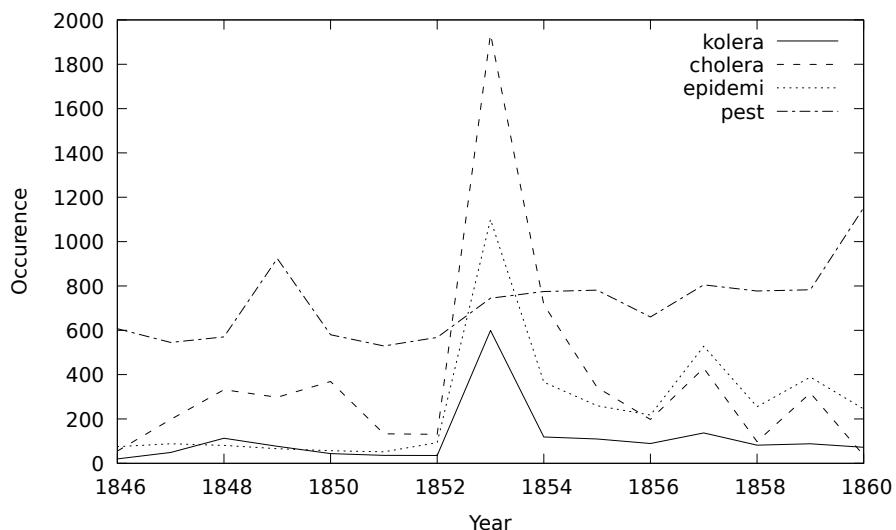


Figure 1. Number of newspaper pages mentioning any of the words *kolera*, *cholera*, *epidemi* or *pest*.

The data

The data was retrieved from Royal Danish Library's LOAR Repository.⁸ It comes in CSV format, aggregated to yearly chunks. Each line is basically corresponding to one page of text in a newspaper.

Some low-hanging fruits

Using the Unix `grep` command makes it easy to count the number of pages containing a given word. So the graph in Figure 1, is simple plot of what is extracted using the shell script in Figure 2.

```
#!/bin/sh
echo "#year kolera cholera epidemi pest farsot"
for file in artikler*
do
    year=$(echo $file| tr -d '[:alpha:][:punct:]')
```

⁵ https://en.wikipedia.org/wiki/1846%E2%80%931860_cholera_pandemic

⁶ https://en.wikipedia.org/wiki/Cholera_outbreaks_and_pandemics

⁷ <https://github.com/siglun/traces-of-historical-plagues>

⁸ Newspapers from Royal Danish Library <https://loar.kb.dk/handle/1902/157>

```

kolera=$(grep -i kolera $file | wc -l)
cholera=$(grep -i cholera $file | wc -l)
epidemi=$(grep -i epidemi $file | wc -l)
pest=$(grep -i pest $file | wc -l)
farsot=$(grep -i farsot $file | wc -l)
echo "$year $kolera $cholera $epidemi $pest $farsot"
done

```

Figure 2. Script for extracting the data for plotting Figure 1. See this paper's Github repository mentioned in the main text.

Three things spring to my mind: (1) The obvious one. People wrote about this cholera outbreak in Copenhagen 1853. They wrote a lot. (2) The effect on the public discourse of the epidemic lasted for years and it did not return to pre-epidemic levels that decade. You see this on the shape of the curves; the incidence of words related to the epidemic rise rapidly from very low levels and then fade out slowly. The fact is that the article count in Figure 1 never really decreases to counts before the cholera outbreak. Almost certainly the people felt like we do in relation to the Covid-19 epidemic: Will it ever be the same again? If there will be new waves, will we survive? (3) People hadn't settled on how to spell the name of the disease yet, cholera and kolera. (4) The word *pest* seems to be widely used in Danish at the time, possibly as something annoying but also as epidemic disease in general.

I also made another analysis, where I aggregated text by week, and used text tokenized by word, see Figure 3. The week numbering starts with 1 at 1846-01-01 and ends at 1860-12-31 with week 781. The huge peak in the graph starts at 1853-06-24 at week 389 (compare with the letter quoted above). It reaches its highest point at the end of July, 1853-07-29, week 395. From what I can tell it continues until the beginning of October, but the mentions of *cholera* in the corpus is higher than the pre-outbreak into March the following year, week 425. There is a discrepancy between the two analyses, in that the article level analyses (Figure 1) implies a longer effect of the outbreak on the discourse than the per word one (Figure 3.)

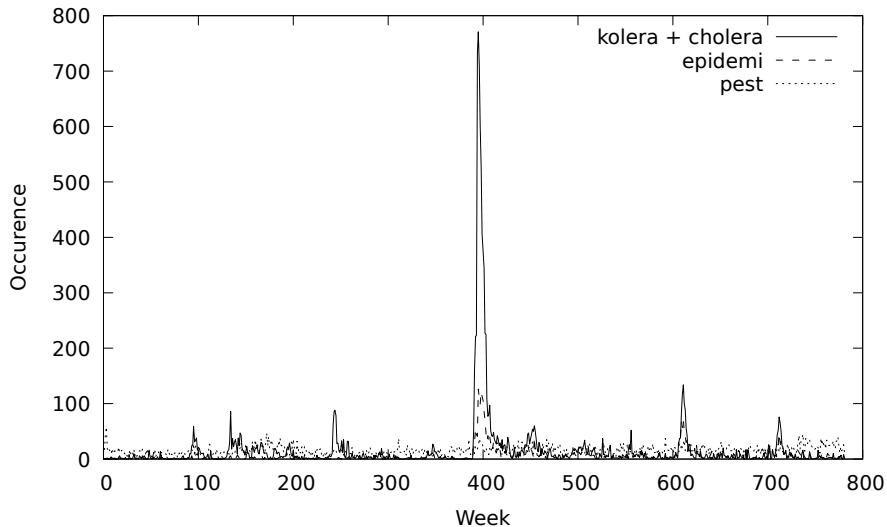


Figure 3. Here I use tokenized text, i.e., there is only one word per line, and I also aggregated the texts by week.

Trigrams

N-grams generation is not an end in itself. They are a starting point for many kinds of statistical and machine learning methods and applications in natural language processing.⁹ You extract n-grams by "sliding" through your tokenized text word by word, and sample n words. Bigrams and trigrams are special cases where you sample two or three words. I am a great fan of simplicity and elegance and hence I love Kenneth Ward Church's tool box which he described in his wonderful classic *Unix for Poets*¹⁰ where you are given methods to do a text analyses using simple tools that you find on all Unix/Linux machines. Here are some examples of trigrams containing the word *hovedstaden* across the weeks, i.e., the capital (in decreasing frequency):

```
cholera i hovedstaden
hovedstaden bortriver cholera
hovedstaden er cholera
hovedstaden af cholera
hovedstaden forekomne cholera
choleraepidemien i hovedstaden
epidemien i hovedstaden
hovedstaden udbrudte cholera
```

For some reason, I don't understand why, the actual name of the city Copenhagen, København (or whatever spelling) seem to occur rarely in comparison with the word *hovedstaden* ("the capital"), which is frequent, in particular 1853. Here is another sequence (containing *cholera er*) and sampled such that they begin with that phrase:

```
cholera er af
cholera er afgaaet
cholera er aftagen
cholera er aldeles
cholera er alter
cholera er aner
cholera er at
cholera er atter
cholera er begjeert
cholera erboldes som
cholera er borlfalden
cholera er bortfalden
cholera er cadetfiibs
cholera ere altsaa
cholera ere berovede
```

As you can see, our newspaper text corpora are not proofread. It is OCR from gothic script. Figure 4-7 are visualizations of the frequencies of various trigrams.

1. Trigrams starting with *kolera i* or *cholera i* ("cholera in" in English). The third word is often a place name, such as *cholera i hovedstaden* (i.e., "cholera in the capital"). There are other constructs like *cholera i begyndelsen* (i.e., "cholera in the beginning").

⁹ <https://en.wikipedia.org/wiki/N-gram>

¹⁰ <http://doc.cat-v.org/unix/for-poets/>

Repetitions are excluded, so the heights of the bars are more measures of diversity rather than abundance. See Figure 4.

2. Trigrams starting with *kolera er* or *cholera er* (“cholera” followed by “is”) in English). These are constructs like *cholera er udbrudt* (“cholera is broken out”), *cholera er fra* (“cholera is from”) etc. See Figure 5.
3. Trigrams starting with *kolera har* or *cholera har* (“cholera” followed by “has” in English). The words following *har* (i.e., “has”) is similar to those following “cholera is”. After all they are both conjugations of the same verb *have*; “has” is still present tense just like “is” but the cholera has been going on for a while when using “has”. For instance, we have *cholera har hersket* (“cholera has ruled”) as opposed to the “cholera is broken out” as mentioned in point 2 above. See Figure 6.
4. Finally, trigrams starting with *kolera havde* or *cholera havde* (“cholera” followed by “had”) in English). One example is *cholera havde vist*, i.e., “cholera had shown”. There are only handful words following this past tense construct of the verb *have*. They only appear in five of the ten years I have in my time series. Since the numbers are so low, I am hesitant to draw any conclusions upon the set of words here. However, only one occurrence of *cholera havde* is before 1853, in 1849. The rest of them are in 1853, 1854, 1855 and 1856 (See Figure 7).

The *cholera havde* constructs seem to be discussions on why things happened as they did in 1853 as in this text

Saavel paa St. Thomas som paa St. Croix vedligholdtes streng Karantaene, och intet Tilfælde af **Kolera havde vist** [authors emphasis] sig paa nogen av Øerne.¹¹ (On St. Thomas as well as on St. Croix there was stringent quarantine, and no cases were encountered on the islands.)

The author of the text can thus preclude the contacts with the Danish West Indies as a source of the disease. The temporal distribution of the *cholera havde* constructs corroborates the conclusion above for the time series shown in Figures 1 and 3. People were talking a lot about Cholera 1853 and many years thereafter, just as we do now in relation to Covid.

¹¹ <http://hdl.handle.net/109.3.1/uuid:dd96317c-bf59-463f-9e63-01ce718ae521>

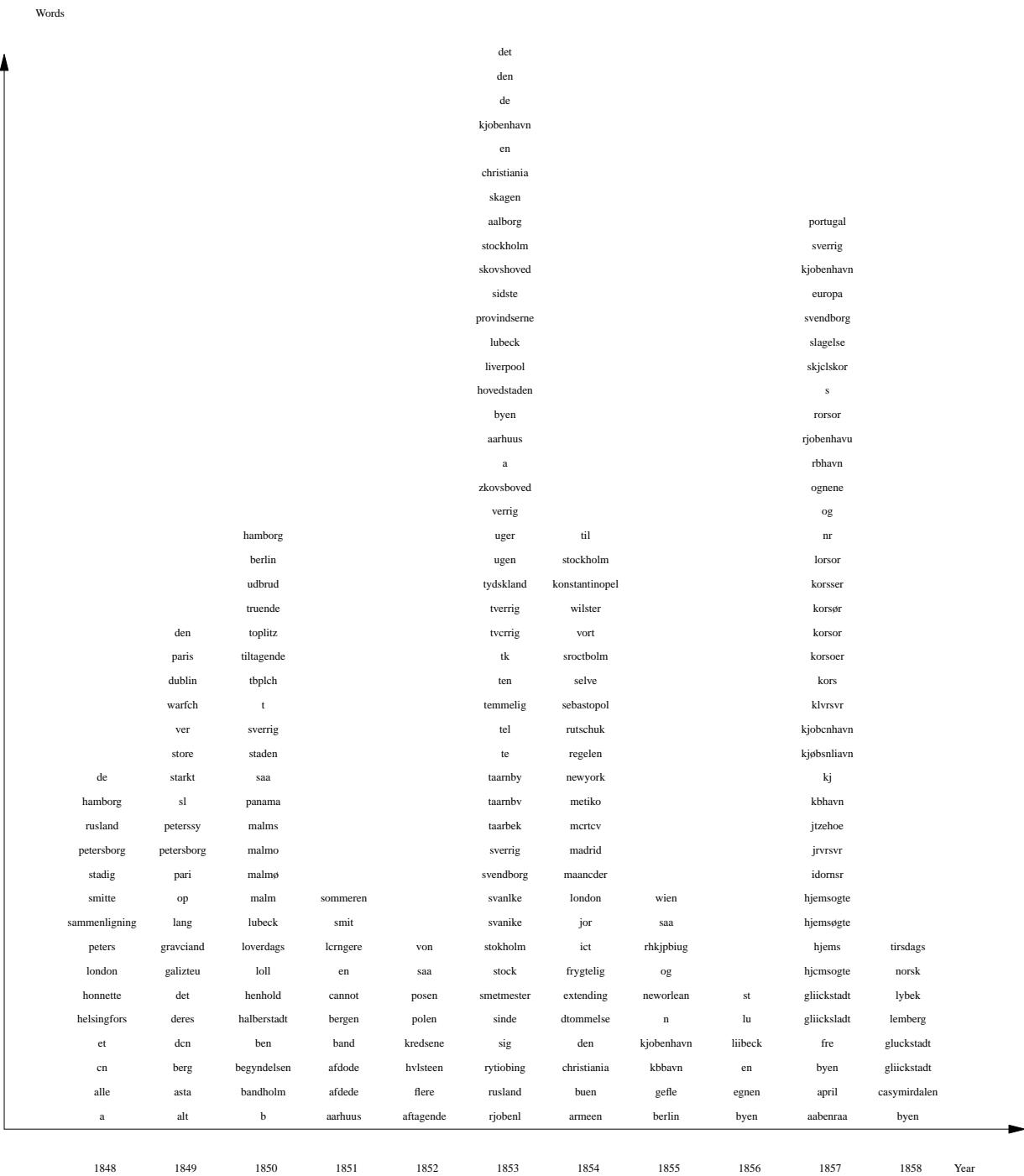


Figure 4. Trigrams per year with the text beginning with cholera i. The highest bar is truncated, in reality it is ten times higher in order to make it fit into the page. I have also removed repetitions.

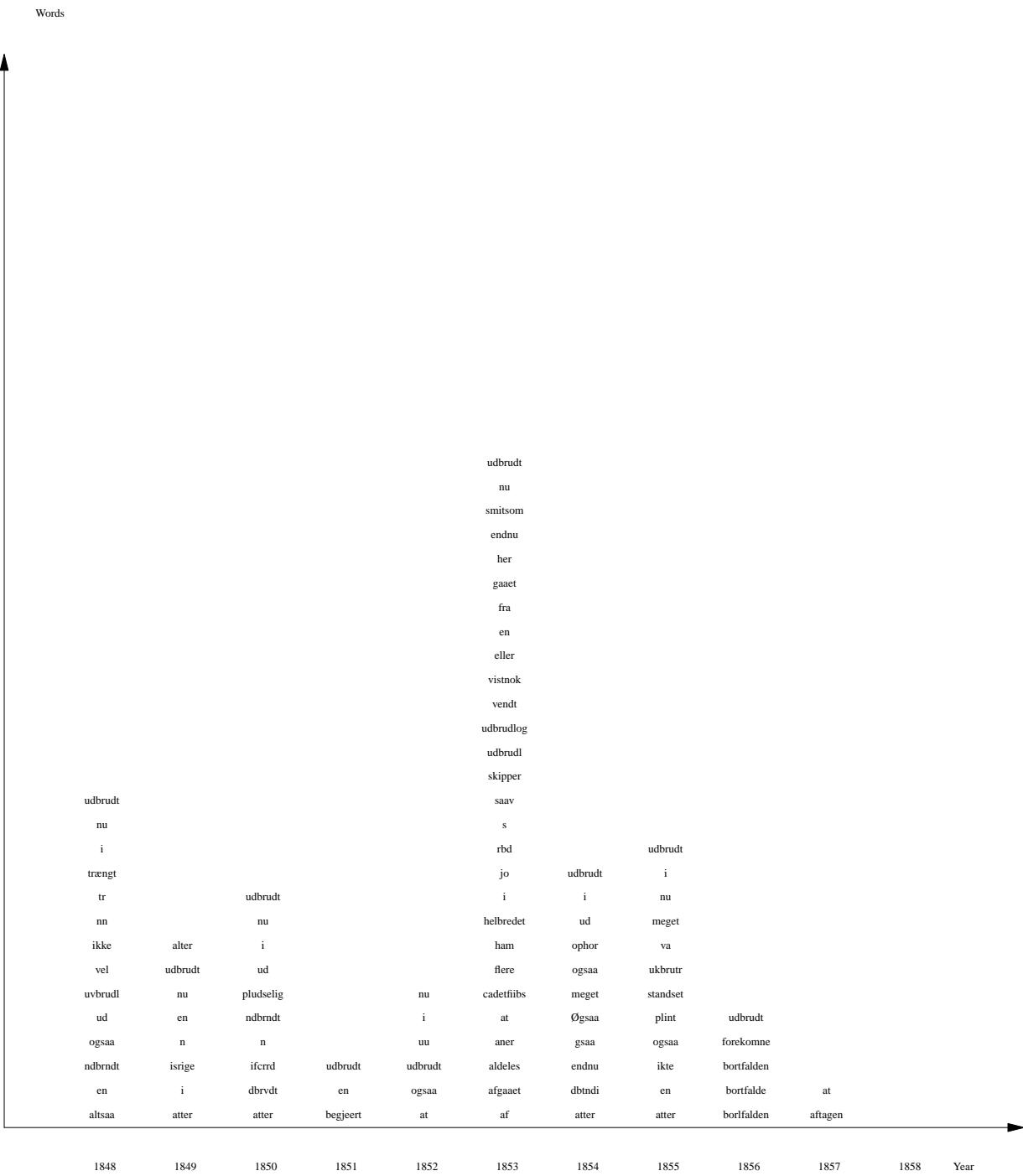


Figure 5. Trigrams per year with the text beginning with cholera er. The highest bar is truncated in order to make it fit into the page. I have also removed repetitions.

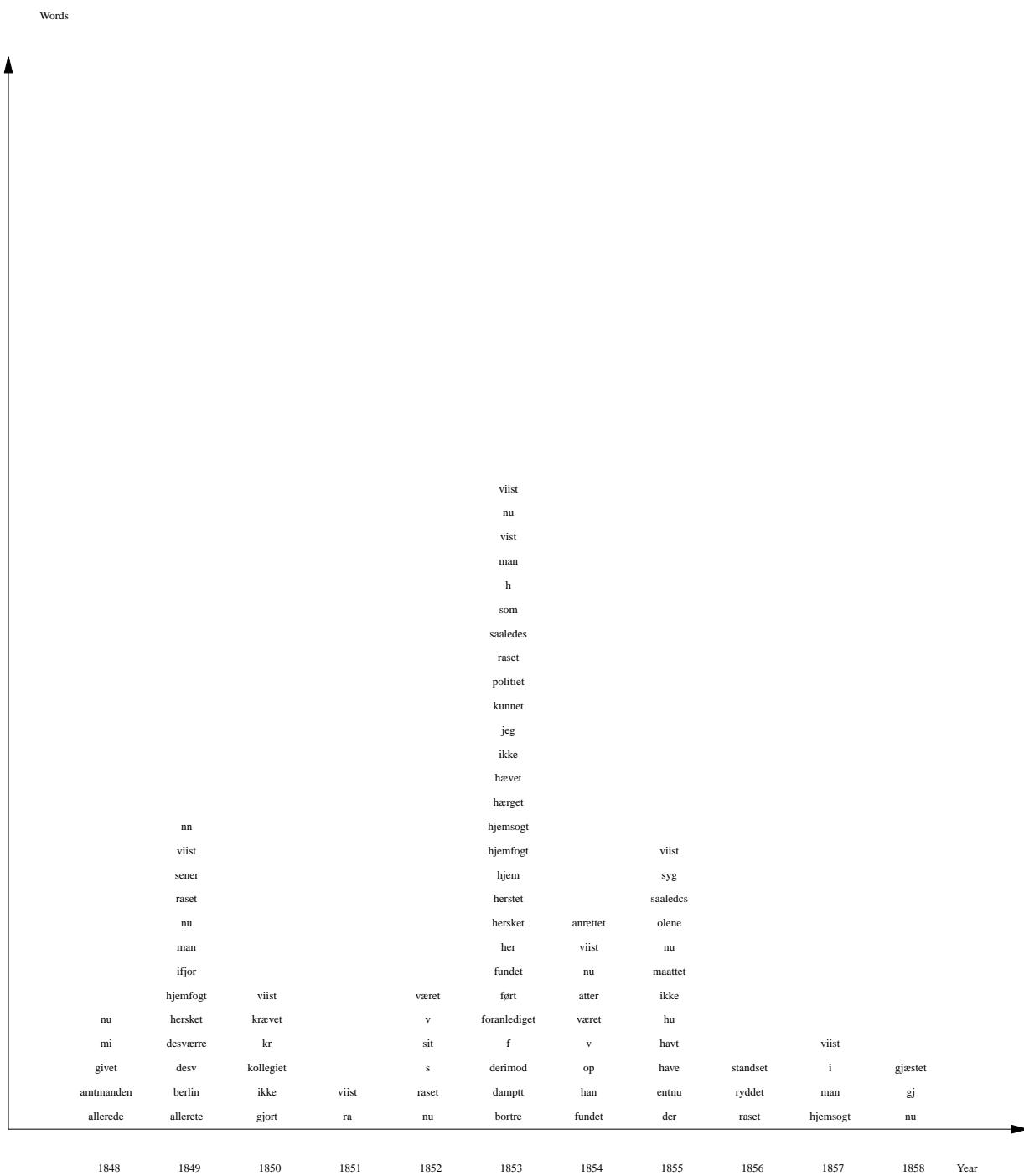


Figure 6. Trigrams per year with the text beginning with cholera har.



Figure 7. Trigrams per year with the text beginning with *cholera havde*.

Lessons learned

- 1 My idea was that just inspection of the words in their context should give information about emotions or sentiments. I suppose that this was just due to my naivete when it comes to languages, since I cannot really find anything of that kind.
- 2 The tools coming with a standard Linux distribution isn't as unicode compliant one would wish. Some twenty years later, the nice utility `tr` is still not really UTF-8. Neither is the GNU implementation of Brian Kernighans graphics language `pic` which I used for the bigrams.
- 3 There is another big problem connected with the use of our newspaper text corpora for computational linguistics. The poor OCR quality.

Appendix: Bigrams containing any of the words *epidemi*, *kolera* or *cholera*.

The bigrams are shown as bars in a set of bar diagrams, one diagram per eight weeks interval. It comprises about a year, from 1853-05-27 (my week 386) to 1854-05-06 (my week 435). When the epidemics is worst, the number of bigrams is so high that I decided to **take only the 50 most frequent ones**, or the text would not be readable. Then all the bars are of equal length, obviously. The bars look somewhat like this, the number is the absolute frequency of the following bigram that week.

```
46 af cholera
42 kolera den
36 kolera ten
36 a kolera
23 kolera hen
15 kolera
10 kolera drn
 9 sidste epidemi
 9 kolera i
 9 kolera d
```

Bigrammes

		5 en epidemi	10 af cholera	25 kolera den
		3 epidemi den	5 cholera og	14 af cholera
		3 cholera epidemi	4 kolera len	7 imod cholera
		2 kolera i	4 en epidemi	7 cholera
		2 kolera af	4 cholera af	5 epidemien i
		2 for cholerapa	3 udbrudte cholera	4 til cholera
		2 epidemi bedes	3 kolera indtil	4 kolera
		2 en cholera	3 kolera den	4 cholera epidemien
		2 cholera tinter	3 heftig cholera	3 med cholera
		2 cholera og	3 for choleraen	3 kolera i
		2 cholera i	3 cholera i	3 epidemi ethvert
		2 cholera er	3 cholera hvorefter	3 cholera epidemien
		2 cholera epidemi	3 cholera har	3 den epidemiiske
		1 ved epidemiers	3 cholera er	3 cholera ere
		1 udtrydende epidemi	3 choleraen i	3 asiatiske cholera
		1 tdr cholera	3 af choleraen	3 af kolera
		1 særegne cholera	2 være cholera	3 af epidemien
		1 sporadisk cholera	2 udalte choleraagtige	2 under choleraen
		1 sporadiffe cholera	2 paa cholerastuuen	2 udbrudte epidemien
		1 som cholera	2 ondartede cholera	2 udbrudte cholera
		1 s epidemien	2 med choleralignende	2 kolera fra
		1 seneste choleraapi	2 kolera	2 kolera epidemi
		1 oyclera epidemi	2 ingen cholera	2 k koleraen
		1 ondaretet kolera	2 for cholera	2 imod cholerasygens
		1 ondaretet cholera	2 epidemiisk cholera	2 forebygge cholera
		1 ondartede cholera	2 epidemi hvad	2 epidemien kraft
		1 om epidemien	2 epidemi af	2 epidemier i
		1 om choleraens	2 en cholera	2 epidemien og
		1 om choleraen	2 den epidemiiske	2 epidemien naar
		1 om cholera	2 cholera vil	2 epidemien holder
		1 med cholera	2 cholera var	2 epidemien har
		1 kolera intil	2 cholera tilfalte	2 epidemien at
		1 kighostc epidemien	2 choleras	2 en cholera
		1 iutiske choleras	2 cholera gamle	2 cholerasyge hvoraf
		1 indtrædende cholera	2 cholerafyge og	2 cholerasyge eller
		1 indiske cholera	2 cholera ere	2 cholera syge
		1 i choleraen	2 cholera epidemi	2 cholera sygdommens
		1 havd epidemiene	2 choleraens udbrud	2 cholera og
		1 hastende cholera	2 cholera der	2 cholera men
		1 firsste cholera	2 cholera angreben	2 cholera kornmaaler
		1 for cholerapatientcr	2 choleraagtige tilfalde	2 cholera i
	1 the epidemic		1 for cholera	2 cholera epidemi
	1 that epidemic		1 faakalde epidemiiske	2 at choleraen
	1 fever epidemic		1 erholdes cholera	2 asiatiske cholera
1 epidemien atter	1 epidemi norge		1 epidemiiske og	2 være epidemist
1 epidemi	1 epidemic outbreak		1 epidemiiske cholera	2 brutde cholera
1 cholera epidemien	1 epidemic cholera	1 medfarer epidemi	1 vare kolera	2 at epidemien
1 cholera har	1 epidemic	1 epidemi som	1 vare cholera	2 as cholera
1 at cholera	1 cholera has	1 epidemi dette	1 vare cholera	2 a kolera
1 almindelig epidemi	1 almindelig epidemi	1 en epidemi	1 vare cholera	2 af koleraen

Bigrammes

18 af cholera	115 kolera den	46 af cholera	78 kolera ten	98 kolera den	73 kolera den	42 af cholera	50 af cholera
14 kolera den	38 kolera ten	42 kolera den	50 af cholera	63 af cholera	49 af cholera	20 cholera og	25 cholera og
10 kolera drn	33 af cholera	36 kolera ten	43 kolera den	23 cholera og	15 cholera og	15 kolera den	12 cholerasyge og
6 cholera epidemien	27 a kolera	36 a kolera	27 kolera xen	17 a kolera	13 kolera	10 kolera i	12 cholera epidemien
6 a kolera	16 kolera	23 kolera hen	17 a kolera	12 kolera d	10 cholera epidemien	10 cholerasyge og	7 ny cholerapatient
5 cholera	10 cholera og	15 kolera	14 kolera tcn	10 kolera	9 a kolera	9 kolera len	7 a kolera
4 mod cholera	6 som epidemien	10 kolera drn	12 cholera og	9 kolera ten	8 kolera ten	9 cholera epidemien	6 ved cholera
3 ved epidemien	6 for cholera	9 sidste epidemii	10 kolera	9 cholerasyge og	7 kolera i	9 as cholera	6 nye choleratilfælde
3 kolera ten	6 as cholera	9 kolera i	8 cholera i	7 cholera epidemien	7 har epidemien	8 under cholera	6 har cholera
3 kolera	5 cholera epidemien	9 kolera d	8 af epidemien	7 as cholera	7 epidemien i	8 kolera ten	6 epidemien i
3 imod choleraen	5 cholera epidemi	8 af epidemien	7 cholera	6 x kolera	7 cholerasyge og	8 at cholera	6 cholera i
3 for epidemien	5 at cholera	7 cholera eller	6 under epidemien	6 cholera i	6 under cholera	7 cholera	5 har choleraen
3 epidemien udbrud	4 udbrudte cholera	6 til epidemien	6 nye choleratilfælde	5 mod cholera	6 kolera dcn	6 nye choleratilfælde	5 epidemien have
3 cholera tilfalde	4 kolera drn	6 da cholera	6 kolera drn	5 kolera i	6 cholera er	6 nye cholerapatienter	5 choleraen er
3 cholera og	4 cholera i	6 cholera og	6 for cholera	5 cholera epidemi	6 cholera eller	6 epidemien i	4 under cholera
3 cholera i	4 choleraens udbredelse	6 cholera epidemien	5 mod cholera	5 cholera eller	5 som epidemien	6 epidemien ere	4 til cholera
3 choleraen i	4 cholera	6 cholera epidemi	5 epidemien udbrud	5 cholera	5 epidemien har	6 cholera epidemien	4 naar epidemien
3 choleraen	4 at epidemien	5 under epidemien	5 cholera men	4 tid epidemien	5 da epidemien	6 choleraen i	4 mod cholera
3 cholera bitter	4 af kolera	5 under cholera	5 as cholera	4 nye choleratilfælde	5 cholera i	6 af epidemien	4 kolera i
3 cholera	3 mod cholera	5 os kolera	5 af kolera	4 nye choleratilfælde	5 at choleraen	5 ved cholera	4 i epidemien
3 af epidemien	3 kolera peter	5 denne epidemi	4 mod choleras	4 nye cholerapatienter	4 nye choleratilfælde	5 kolera epidemien	4 cholera epidemien
2 til choleraen	3 kolera len	5 cholera er	4 kolera i	4 for choleraen	4 nye cholerapatienter	5 da choleraen	4 cholerapatient anmeldt
2 opgivne cholera	3 kolera d	5 as kolera	4 epidemi som	4 for cholera	4 m kolera	5 cholerapatienter anmeldte	4 cholera ere
2 om cholera	3 imod choleraen	5 af kolera	4 da cholera	4 epidemi er	4 hvor cholera	5 choleraen er	4 choleraen nu
2 ligne cholera	3 cholera som	4 til cholera	4 choleratilfælde anmeldte	4 epidemien varer	4 epidemien viist	5 af kolera	4 cholera eller
2 kolera fra	3 cholera patient	4 nye choleratilfoelde	4 choleratilfælde anmeldt	4 epidemien i	4 epidemi blive	4 virkelig cholera	4 cholerae trængte
2 i choleralignende	3 cholera hospital	4 nye choleratilfælde	4 choleras udbredelse	4 cholera var	4 cholera epidemien	4 til cholera	4 at choleraen
2 et choleralignende	3 cholera er	4 mod choleras	4 choleralignende tilfældet	4 cholerapatienter anmeldte	4 denne epidemi	4 i cholera	3 vedvarer epidemien
2 epidemi har	3 choleraen	4 kolera johan	4 cholera har	4 cholera men	4 cholerapatienter anmeldte	4 hvor epidemien	3 ved epidemien
2 epidemi er	3 cholera efter	4 kolera h	4 cholera fra	4 cholera hvoraf	4 cholera ikke	4 epidemi har	3 raser epidemien
2 epidemien har	3 cholera bitter	4 for epidemien	4 aug cholera	4 cholera	4 cholera epidemi	4 denne epidemi	3 om cholera
2 epidemien ere	3 cholera	4 for cholera	4 at cholera	3 m kolera	4 at cholera	4 choleratilfælde anmeldt	3 nye cholerasyge
2 epidemien er	3 as kolera	4 faaet kolera	4 af choleraen	3 kolera drn	3 ved cholera	4 cholera epidemi	3 modtager cholera
2 cholera epidemi	3 asiatiske cholera	4 epidemi som	3 ved cholera	3 fra epidemien	3 synes epidemien	4 choleraen viist	3 med cholera
2 denne epidemi	2 ved choleraens	4 epidemien nu	3 sidste epidemi	3 et cholera	3 nye choleratilfoelde	4 at choleraen	3 kolera ten
2 cholera vare	2 omtalte cholera	4 cholera men	3 kolera og	3 epidemiens begyndelse	3 nye choleratilfælde	4 af choleraen	3 kolera epidemien
2 cholera syge	2 mod koleraens	4 cholera ikke	3 kolera epidemi	3 epidemiens har	3 mod cholera	3 ved kolera	3 hvor epidemien
2 choleralignende tilfalde	2 m kolera	4 cholera i	3 imod cholera	3 epidemien endnu	3 kolera fra	3 under epidemien	3 er epidemien
2 cholera epidemi	2 kolera fra	4 cholera hospital	3 et choleralignende	3 cholera epidemien	3 kolera epidemien	3 udbrudt cholera	3 epidemien begyndelse
2 choleraens udbredelse	2 kolera dorthea	4 cholera af	3 er epidemien	3 choleratilfælde anmeldt	3 imod cholera	3 siden epidemien	3 epidemien ere
2 cholera der	2 kolera det	4 asiatiske cholera	3 epidemien videre	3 cholera have	3 holde epidemien	3 paa cholera	3 en epidemi
2 cholera af	2 holde choleraen	4 as cholera	3 epidemien gjore	3 cholera er	3 er cholera	3 om cholera	3 en cholerasyg
2 at choleraen	2 herskende cholera	3 m kolera	3 epidemien en	3 choleraen i	3 epidemi med	3 nye choleratilfælde	3 cholera epidemi
2 asiatsik cholera	2 for epidemien	3 kolera maren	3 epidemien egentlig	3 choleraen er	3 epidemien ude	3 kolera fra	3 choleratilfælde og
2 asiatsif cholera	2 fik cholera	3 kolera kolera	3 en epidemie	3 at choleraen	3 epidemien udbredelse	3 kolera	3 choleratilfælde anmeldt
2 af epidemien	2 et cholera	3 hvor cholera	3 cholera epidemiens	3 at cholera	3 epidemien nu	3 for cholera	3 cholerasyg var
1 virkelig cholera	2 epidemi ere	3 epidemien varer	3 cholera tilfælde	3 af kolera	3 en cholerasyg	3 epidemiens udbredelse	3 cholera syge
1 virkelig cholera	2 epidemien udbrud	3 epidemien standsning	3 cholerasyge af	3 af epidemien	3 de cholera	3 epidemien nu	3 cholera patienter
1 vigs anticholerasyre	2 epidemien og	3 epidemien i	3 cholera naar	2 ved cholera	3 cholera udbrud	3 epidemien her	3 choleraen i
1 ved choleraen	2 epidemien indvirker	3 en cholerasyg	3 cholera ikke	2 var cholera	3 choleratilfoelde anmeldt	3 en cholera	3 at cholera

Bigrammes

57 af cholera	31 af cholera	46 af cholera	18 af cholera	12 af cholera	6 epidemien er	7 af cholera	10 under epidemien
19 kolera den	9 af kolera	12 cholera og	8 cholera epidemien	3 ved epidemis	4 epidemien i	5 cholera er	6 af cholera
14 cholera epidemien	6 under cholera	12 cholera i	5 hvor cholera	3 ved cholera	4 cholera er	4 ved cholera	4 epidemien en
12 cholera og	6 epidemien har	11 as cholera	5 epidemien have	3 under epidemien	4 af cholera	4 cholera epidemien	3 under choleraepidemien
9 cholera i	6 cholera epidemien	6 ingen cholerasyge	4 under cholera	3 i cholera	3 ved choleraen	4 at epidemien	3 epidemien i
9 as cholera	6 af choleraen	6 af kolera	4 cholera er	3 hvor cholera	3 ved cholera	3 under cholera	3 epidemien ere
8 under cholera	5 under epidemien	5 cholerasyge og	3 kolera i	3 epidemien begyndelse	3 cholera epidemien	3 kolera i	3 cholera
7 cholerasyge og	5 kolera i	5 cholera de	3 epidemien er	3 epidemien nu	3 choleraen have	3 cholera og	2 ved epidemien
6 mod cholera	5 cholera samt	4 cholera har	2 ved cholera	3 epidemien navnlig	2 under choleraen	3 choleraepidemien i	2 for cholera
5 epidemien i	5 at cholera	4 cholera epidemien	2 naar cholera	3 epidemien er	2 under cholera	3 choleraen i	2 epidemi som
5 epidemien have	5 as kolera	4 cholera det	2 epidemi som	3 da epidemien	2 kolera blandt	3 cholera bortdode	2 epidemisk vil
5 cholera siden	4 med kolera	3 kolera ten	2 en epidemi	3 cholera og	2 epidemien have	3 cholera	2 en epidemi
5 at cholera	4 kolera epidemien	3 kolera i	2 en cholerasyg	3 cholera epidemi	2 epidemien blev	2 var cholera	2 choleralifælde i
5 af kolera	4 kolera den	3 cholera udbrod	2 e kolera	3 af choleraens	2 cholera epidemien	2 under epidemien	2 choleraen har
4 ved kolera	4 cholerasyge og	3 cholerasyge anmeldte	2 cholera epidemien	2 ved choleraen	2 de cholerbetrængte	2 under choleraepidemien	2 cholera bureaut
4 ved cholera	4 cholera i	3 cholera paa	2 ebolera epidemien	2 medens choleraen	2 de cholerase	2 under choleraens	2 blive epidemisk
4 naar epidemien	4 cholera epidemi	3 cholera men	2 cholerasyg kone	2 hyppigt choleralignende	2 choleraen har	2 til cholera	1 ved choleraen
4 mod choleraen	3 kolera fra	3 cholera er	2 cholera paa	2 grasserende cholera	2 choleraen er	2 om cholera	1 ved cholera
4 epidemien og	3 hvor epidemien	3 cholera der	2 cholera og	2 er epidemien	2 cholera	2 of cholera	1 under koleraen
4 epidemien er	3 for choleraen	3 at cholera	2 cholera indtruffet	2 epidemi kan	2 at epidemien	2 modtage cholera	1 under choleraepidemien
4 en epidemisk	3 epidemien der	3 as kolera	2 cholera epidemien	2 choleralignende eller	2 af kolera	2 kolera den	1 under choleraen
4 cholera hun	3 cholera havde	2 ved epidemien	2 choleraen har	2 cholera epidemien	2 af epidemien	2 imod cholera	1 under cholera
4 choleraen er	3 cholera har	2 ved choleraen	2 choleraen ere	2 choleraens ophor	1 værende choleraerængte	2 ikke cholera	1 udgift cholera
4 cholera angrebne	3 choleraen og	2 ved cholera	2 cholera ei	2 choleraen have	1 ved koleraen	2 epidemiste cholera	1 til koleraen
4 cholera	3 choleraen men	2 var cholera	2 cholera	2 choleraen grasserede	1 ved epidemien	2 epidemi som	1 til choleraens
4 a kolera	3 choleraen er	2 under cholera	2 cholera	2 cholera	1 ved choleraeviden	2 epidemiske cholera	1 st cholera
3 ved choleraen	3 cholera bureaut	2 s kolera	2 as kolera	2 as epidemien	1 ved choleraevide	2 epidemien ere	1 skolerasenets og
3 med cholera	3 as cholera	2 over epidemien	2 af kolera	1 vor epidemien	1 ved choleraepidemien	2 den epidemiste	1 overstaaede epidemii
3 kolera og	2 ved choleraepidemien	2 og epidemien	2 af choleraen	1 virkelige cholera	1 undgaael epidemien	2 den epidemiske	1 overftaaede epidemii
3 kolera fra	2 ved choleraen	2 lera epidemien	1 ved choleraepidemien	1 ved kolera	1 under epidemien	2 cholera nu	1 oktbr choleraen
3 for epidemien	2 the cholera	2 kolera fra	1 ved choleraepidemien	1 ved epidemien	1 under choleraepidemien	2 cholera men	1 nyt choleralifælde
3 for cholera	2 nye choleralifælde	2 i cholera	1 ve cholera	1 ved choleraemdemien	1 udbrudte cholera	2 cholera have	1 mandskabet ascholera
3 epidemisk sygdom	2 med cholera	2 for cholera	1 under choleraepidemien	1 ved choleraepidemien	1 uagtet cholera	2 cholera har	1 kolera tilfælde
3 epidemien man	2 kolera netop	2 et choleralit	1 under choleraen	1 vcd choleraen	1 tilboit koleraadode	2 cholera eller	1 cholerasyge rr
3 epidemien har	2 kolera kort	2 epidemien vere	1 under cholercapdemien	1 tiltalt skolera	1 tgbol cholera	2 cholera der	1 kolerapatient i
3 efter cholera	2 kolera har	2 epidemien ved	1 udbrudt epidemi	1 til choleraertrngte	1 stg koleratilsalte	2 cholera at	1 koleralarge var
3 cholera thi	2 intet choleralifælde	2 epidemien lykkelige	1 til cholera	1 the epidemic	1 stedse kolera	2 cholera af	1 kolera i
3 cholerasyge hvoraf	2 hvor kolera	2 epidemien nu	1 ten kolera	1 the cholera	1 stedse cholera	2 at choleraen	1 koleraen il
3 cholera saa	2 herskende cholera	2 epidemien i	1 tdasposten kolera	1 ten cholera	1 sorger cholera	1 være epidemisk	1 koleraen dels
3 cholera ingen	2 har cholera	2 epidemien antages	1 sporadiske kolera	1 store epidemi	1 sor cholera	1 vid cholera	1 i skolerasenets
3 cholera har	2 grasserende cholera	2 en epidemi	1 sporadic cholera	1 skolera i	1 som choleraepidemien	1 under epidemien	1 hvrpaa kolera
3 cholera fra	2 from cholera	2 ebolera epidemien	1 som epidemi	1 serente kolera	1 sig choleralitscrilde	1 udbruttr kolera	1 hvrpaa cholera
3 choleraen var	2 for koleraen	2 cholera viist	1 som choleraen	1 pri kolera	1 sig choleralifælde	1 tverrig choleraen	1 holera epidemien
3 cholera det	2 forinden epidemien	2 choleralit felde	1 seneste choleraoddsfald	1 og choleraens	1 portsmouth koleraen	1 tnodstaae choleraens	1 frygtelige epidemii
3 af epidemien	2 er choleraen	2 cholera tilfælde	1 red cholera	1 nye choleralifeldc	1 porismoulh choleraen	1 til choleraens	1 formedelst choleraen
3 af choleraen	2 epidemi siden	2 cholera syge	1 opbor afgkoleraborettinerae	1 nu epidemien	1 ogsaa choleraen	1 til choleraertrnigte	1 for choleraepidemien
2 under epidemien	2 epidemien trufne	2 cholera indtruffet	1 og choleralignende	1 mod choleraen	1 og epidemien	1 til choleraertrnigte	1 fl cholera
2 tiltager epidemien	2 epidemien udbrud	2 cholera hjcmsgote	1 octbr cholera	1 mod cholera	1 og cholera	1 til choleraertrngte	1 faa kolera
2 tab epidemien	2 epidemien i	2 cho leraepidemien	1 nyt choleralifælde	1 mer epidemien	1 ofte cholera	1 tid cholera	1 et choleralifælde
2 studeret choleraen	2 epidemien have	2 choleraen i	1 nye choleralifeldc	1 med epidemien	1 nye kolerattl	1 thi koleraen	1 epidemi har

Bigrammes

8 af cholera	8 af cholera	5 af cholera	4 under epidemien	4 epidemien i	4 ved epidemien	4 of cholera	5 of cholera
5 epidemien i	4 cholera epidemien	4 epidemien synes	3 de cholerbetrængte	4 af cholera	2 under epidemien	3 kan epidemisk	4 the cholera
5 cholera epidemien	3 cholera ilt	3 under epidemien	3 af cholera	2 ved epidemien	2 cholera bortdode	3 cholera eller	2 i choleratiden
3 hvor epidemien	2 with cholera	3 cholerbetrængte i	2 epidemien er	2 cholera epidemien	2 cholera	3 cholera but	2 herskende choleraepidemi
3 forsvundne epidemi	2 til epidemisk	3 av epidemien	2 cholera epidemien	2 cholera epidemien	2 af cholera	3 af kolera	2 holeraepidemien i
3 epidemi for	2 rigeligt cholera	2 with cholera	2 cholerbetrængte og	2 cholera	1 ved choleraepidemien	3 af cholera	2 cholera men
2 epidemien endnu	2 havd epidemien	2 ved choleraepi	2 cholera	1 ved choleraen	1 under kolerapitemien	2 under epidemien	2 cholera is
2 cholera epidemi	2 epidemiisk cholera	2 typhnsepidemien for	2 af kolera	1 ved cholera	1 til cholerbetrængte	2 selve kolera	2 cholera but
2 as kolera	2 epidemien synes	2 rigeligt cholera	1 ved kolera	1 under choleraepidemien	1 til choleraetcrngte	2 kolera angrebbe	2 af choleraepidemien
2 alle choleralignende	2 epidemien her	2 lera epidemien	1 ved choleraepidemien	1 under cholera	1 ra kolerabefangte	2 epidemiisk cholera	1 with cholera
1 ved choleraen	2 cholera stof	2 epidemiisk natur	1 ved cholera	1 udbydende cholera	1 nce kolera	1 vev choleraepidemien	1 when cholera
1 ved cholera	2 as cholera	2 epidemien har	1 typhusepidemien sor	1 udbredte koleraen	1 mod choleraen	1 ved epidemien	1 ved epidemien
1 var kolera	2 af epidemiisk	2 epidemien er	1 til epidemiisk	1 udbredte choleraen	1 kolerapitemien bar	1 ved cholera	1 vaeret cholerahospital
1 vare choleratilfad	1 ved choleraepi	2 en choleraepidemie	1 til cholerasmitten	1 til cholerbetrængte	1 koleral etcrngt	1 under kolerapitemien	1 under choleraepidemien
1 under hbolcraepidemtin	1 ved choleraen	2 cholera stof	1 til choleralazaiich	1 te kolerabetrængte	1 kolera kammerjomfru	1 under cholera	1 under choleratiden
1 under choleraepideminc	1 ved cholera	2 choleraepi demien	1 til choleraens	1 sin cholera	1 kolera cpilemi	1 under cholcraepidemien	1 under cholera
1 under choleraen	1 under epidemien	2 cholera epidemien	1 til cholerbetrængte	1 nvt choleratilfalte	1 kolera belobe	1 til epidemiens	1 that cholera
1 uagtet epidemiem	1 under choleraliden	2 choleraepidemic at	1 som typhusepidemien	1 koleratilfalde de	1 kolerabefangte og	1 til cholerakomiten	1 sommer herfiendecholera
1 to cholera	1 under choleraen	2 af kolera	1 som ihyhhioepidemien	1 kolera til	1 koleraetcrngte i	1 til choleraens	1 og epidemiens
1 til cholerakomiteen	1 under choleraepidemien	2 af epidemiisk	1 som epidemi	1 kolera n	1 i epidemiien	1 selve cholera	1 no cholera
1 til cholerbetrængte	1 uagtet epidemiem	1 ved koleraepidc	1 sidste koleraangrebne	1 koleral oticrngte	1 herskende choleraepidemi	1 raepidemien have	1 malignant cholera
1 that epidemic	1 tor kolerabetrængtes	1 ve cholerbetrængte	1 sidste choleraangrebne	1 koleraen nu	1 hcrflende choleraepidemi	1 og epidemiens	1 lite epidemic
1 te kolerabetrængte	1 paa choleralazareth	1 under chvleraepidemiu	1 rpitemifl kolera	1 koleraen i	1 haster choleraen	1 og choleraleger	1 kunde epidemiens
1 sor choleraetcrngtc	1 og cholerarden	1 under choleraepidemien	1 m koleraepeini	1 koleraen fig	1 haarde cholera	1 no cholera	1 koleratid har
1 overstaade cholera	1 of cholera	1 til epidemiist	1 nye koleratilfelde	1 kolerbetrængte i	1 fra choleras	1 lhvlera epidemiem	1 koleratiden propulfe
1 og epidemiens	1 nod cholcraepideminc	1 til epidemiiff	1 nye choleratil	1 kdolra epidemiens	1 fra choleraela	1 lcra epidemiens	1 kolera men
1 lignende epidemiem	1 mnlig cholerasyge	1 til epidemi	1 nogen kolerafyq	1 i kolera	1 et cholerasmittet	1 kolera utgiften	1 kiobrnarn koleratid
1 kolera ombord	1 lit choleralazarethet	1 til choleraepidemien	1 nogen cholerasyz	1 i choleraiden	1 epidemiens planen	1 kolera udgiften	1 i koleratiden
1 kolera og	1 leraepidemien pengene	1 til cholerbetrængte	1 lazaretbet epidemiens	1 i cholera	1 epidemiens isominer	1 kolera tilfalde	1 hvor epidemiens
1 kolerafy og	1 kolerasyge i	1 te kolerabeirængte	1 koleratilfelde anmeldte	1 for epidemiens	1 epidemiens isoiiuner	1 kolera og	1 hvor cholerapatienter
1 koleraen som	1 koleras vpkor	1 strakkelige epidemi	1 kolera sygdommen	1 fer epidemiens	1 epidemiens i	1 koleraepitimen bar	1 herfiendecholera epidemi
1 koleraen harte	1 kolera hje	1 som typhnsepidemien	1 kolera spitemien	1 f choleraen	1 epidemiens have	1 koleraen stegne	1 faaet kolera
1 koleraen har	1 kolerbetrængtes understottelje	1 som epidemi	1 kolera lpitemien	1 er choleras	1 epidemiens da	1 kolera eller	1 faaet cholera
1 kolera broen	1 kolerabeiraengie faa	1 side cholera	1 kolera i	1 epidemiens mistede	1 epidemiens derefter	1 koleraetcrngte i	1 eyolera epidemiens
1 kolerabetrængte har	1 for cholerbetrængte	1 samme epidemi	1 kolerafyq de	1 epidemiens lvrindrifnisli	1 epidemi dp	1 kan epidemiist	1 epidemi maa
1 kolera afdorea	1 for choleraetcrngt	1 rigeligt kolera	1 kolera er	1 epidemiens isommer	1 enkelte cholerasyge	1 jndfriden choleraen	1 epidemiens ved
1 koldfeber epidemiem	1 epidemiisk natur	1 of cholera	1 koleraepeini at	1 epidemiens har	1 cholera epidemi	1 holcraepidemien nodlidendes	1 epidemiens tvrlc
1 indtil choleraepidemien	1 epidemiisk kolera	1 nye choleralilfæde	1 koleraen har	1 epidemiens fædre	1 de koleral	1 haarre cholera	1 epidemiens idet
1 hvor cholera	1 epidemiens vare	1 lom typhnsepidemien	1 koleraangrebne ere	1 epidemiens belobe	1 de koleraetcrngte	1 from cholera	1 epidemiens have
1 holera epidemiens	1 epidemiens nu	1 komme choleraetcrngtel	1 hyhgioepidemien for	1 epidemiens	1 dee choleraen	1 epidemiist cholera	1 epidemiens grasserede
1 herskende cholera	1 epidemiens kjøbenbavn	1 kolera undervejs	1 havne cholerafrie	1 epidemi deels	1 choleraatifa lde	1 epidemiisk kolera	1 epidemiens endnu
1 hbolcraepidemint finants	1 epidemien i	1 kolerasvge er	1 for cholerbetrængte	1 eet choleraetilfalde	1 cholerasyge kunde	1 epidemiens tid	1 epidemic a
1 har choleraen	1 epidemien c	1 kolera stof	1 fdolera epidemiens	1 de koleral	1 choleras udbrud	1 epidemiens stedse	1 epidemic
1 gen epidemiisk	1 epidemi at	1 kolera iali	1 epidemiisk natur	1 choleraetilfælde der	1 cholerasmittet sted	1 epidemiens ophor	1 druknede cholera
1 et choleralazareth	1 en choleraepidemie	1 kolera epidemiens	1 epidemi saa	1 choleraetilfalde de	1 cholera og	1 epidemiens mistet	1 de cholerbetrængte
1 et choleralazarcith	1 eholera epidemiens	1 koleraepidi at	1 epidemiens troede	1 choleraetidcn soger	1 cholerahospi taler	1 epidemiens jaaledcs	1 de cholera
1 epidemiisk tfbarafccr	1 eh leraepidemien	1 koleraepe micii	1 epidemiens stort	1 cholera sil	1 cholera hjemsogte	1 epidemiens ikke	1 ckolera c
1 epidemiiske sygdom	1 demist cholera	1 koleraen og	1 epidemiens renalouious	1 choleras hjem	1 choleraepidemien ministeren	1 epidemiens har	1 cholera whether
1 epidemi har	1 de kolerabeiraengie	1 koleraen har	1 epidemiens i	1 cholera og	1 cholera epidemiens	1 epidemiens endnu	1 cholera were
1 epidemi gjorde	1 cholerasyge i	1 kolerbetrangie i	1 epidemiens har	1 cholera morbus	1 cholera epidemiem	1 epidemiens as	1 choleraatiden ved

Bigrammes

6 epidemien i	4 the epidemic	3 of cholera	3 of cholera	5 epidemi som
3 af epidemien	2 the cholera	3 efter epidemien	3 choleraen er	4 at cholera
2 for choleras	2 lukkede choleralazareth	3 cholera var	1 ve cholera	3 the epidemic
2 choleras udbrud	2 epidemien i	3 cholera er	1 under epidemier	3 of cholera
2 af kolera	2 choleralazareth after	3 cholera	1 under epidemien	2 under epidemien
2 af cholera	2 cholera epidemien	3 at cholera	1 uncer cholera	2 the cholera
1 vedcholeraepide mien	2 cholera bitters	2 ved epidemiens	1 tillid choleraen	2 for cholera
1 ved choleraen	2 cholera	2 under epidemien	4 the cholera	1 til cholera
1 under ilhoicrnepidemicn	2 af choleraepitemien	2 for epidemien	3 cholera is	1 the cholera
1 under epidemien	2 af cholera	3 cholera is	2 epidemi til	2 cholera bitters
1 under cholera	1 ved choleraen	2 when cholera	2 epidemi naar	2 cholera
1 to epidemic	1 under epidemien	2 cholera bitters	2 epidemi fra	1 when cholera
1 til cholerakomiteen	1 under choleraepidemien	2 cholera	1 ved epidemiens	1 saalænge epidemien
1 the epidemic	1 to epidemic	1 ved epidemiens	2 cholera and	1 varste choleratid
1 the cholera	1 te cholabre	1 varste choleratid	1 ved epidemiens	1 typhus epidemi
1 sin epidemiste	1 som epidemien	1 them cholera	1 ve cholabertrcrngte	1 thc cholera
1 sin epidemiske	1 som cholerasrygten	1 the cholera	1 uitfr choleraepitiiut	1 sor epidemiens
1 sidste epidemi	1 n cholera	1 store koleraepsdemien	1 tholera epidemiens	1 koleraen brachte
1 sdolera epidemiens	1 leraepidemie der	1 lukkede koleralazareih	1 om choleraens	1 hvor cholera
1 om choleraens	1 ledes choleraepitemien	1 koleralazareih arier	1 the cholera	1 hindredes cholera
1 of cholera	1 kolera og	1 koleraepsdemien har	1 som epidemiens	1 foruden cholera
1 nyt cholera	1 ijavmoun epidemic	1 koleraen endnu	1 som epidemiens	1 kolera i
1 mormoiiismen koleraen	1 hvor choleralusten	1 in cholera	1 osiatiste cholera	1 epidemi medens
1 ilhoicrnepidemicn have	1 hvor choleraen	1 har koleraen	1 on cholera	1 epidemi stred
1 11 epidemiske	1 hvem choleraepitemienf	1 foruden cholerapatienter	1 om cholera	1 epidemic i
1 kostbare cholera	1 herskende cholera	1 for epidemiens	1 of epidemic	1 epidemiens lddrud
1 kolera stulde	1 har choleraen	1 epidemiens fra	1 odeloezgende epidemi	1 epidemi naar
1 kolera epi	1 gjennemgaet cholera	1 epidemiens udbrud	1 nyt choleratilfælte	1 epidemi maae
1 koleraen bar	1 fra choleralazareth	1 epidemiens naar	1 noget choleratilfælde	1 epidemic now
1 koleraefrederiks	1 epidemiens umiddel	1 du cholera	1 n cholera	1 cholera which
1 kolabetrongte i	1 epidemiens og	1 drabende epidemi	1 mk eboleraepidemien	1 cholera therq
1 i epidemics	1 epidemiens indsamlet	1 choleratid var	1 lukket kolera	1 cholera var
1 i choleraen	1 epidemiens endvidere	1 cholera the	1 kolera vaaret	1 cholera vir
1 gholeraepidemirn have	1 epidemic would	1 cholerapatienter havde	1 kolera opiteinien	1 choleratiden virket
1 for cholera	1 epidemic if	1 cholerapatienter bore	1 kolera er	1 cholera should
1 f cholera	1 epidemic has	1 cholera morbus	1 kolera epidemiens	1 choleralæger ud
1 epidemieste charaktec	1 epidemic from	1 cholera lungebetandelser	1 koleraen kravete	1 cholera er
1 epidemieste karakter	1 epidemic cholera	1 cholera kjøbenhavn	1 koleraen endnu	1 cholera paa
1 epidemieste cbarakteer	1 epidemic	1 cholera its	1 hvor koleraen	1 cholera from
1 epidemi er	1 choleraepidemien meddeelte	1 cholera having	1 har koleraen	1 cholera is
1 epidemi ved	1 cholera epidemiens	1 choleraepid miei	1 fra epidemiens	1 cholera in
1 epidemi udgik	1 de cholerasyge	1 cholera appeared	1 epidemiens udbrud	1 choleraen paa
1 epidemi idet	1 cholera while	1 cholera	1 epidemiens ud	1 cholera every
1 epidemi ere	1 cholera was	1 blodgang cholera	1 epidemiens folger	1 choleralazareth i
1 epidemi er	1 cholera ud	1 before cholera	1 epidemiens begyndelse	1 cholera cr
1 epidemics habitual	1 cholerasyge end	1 asiatic cholera	1 epidemiens ramte	1 cholera bitters
1 epidemic i	1 cholerasrygten havde	1 any cholera	1 epidemiens i	1 cholera er
1 epidemic from	1 cholera og	1 alle cholerapatienter	1 epidemiens have	1 asiatiske cholera
1 cholera epidemiens	1 choleralusten syntes	1 af choleraepid	1 epidemiens bleve	1 af kolera
1 cholera epidemien	1 choleralazareth ved	1 af cholera	1 epidemiens der	1 afbrak choleraen

Bigrammes

		6 the cholera	3 le cholera				
		2 le cholera	2 var choleraen				
		2 ie cholera	2 the cholera				
		2 from cholera	2 from cholera				
		2 epidemic and	2 choleraen paa	2 kolera epidemien			
		2 cholera washed	2 afgaaetpaa cholera	2 epidemic the			
		2 cholera i	1 which epidemieu	1 under epidemien			
		2 cholera her	1 unoer koleraepide	1 under choleraepidemien			
		2 cholera est	1 under choleraepidemien	1 udbrudt cholera			
		2 cholera epidemic	1 tbe cholera	1 the epidemic			
		2 cholera ct	1 predominant epidemic	1 that cholera			
		2 cholera and	1 obolera epidemien	1 late epidemic			
		1 with cholera	1 kundskab cholera	1 korte epidemi			
		1 was cholera	1 kolerasygdom al	1 kolera til			
		1 this epidemic	1 kolera har	1 koleraen nu			
3 i choleratiden		1 simple cholera	1 indiraffnide kolerasygdom	1 kartoffel epidemien			
2 paa choleralazareth	1 propageant cholera	1 had cholera	1 ingen cholera				
2 fra epidemisens	1 paa choleraens	1 fourteen cholera	1 hvilke choleraepidemien				
2 epidemisens begyndelse	1 om choleraens	1 for cholera	1 er cholera				
2 de cholerbetrængte	1 of cholera	1 flodige cholera	1 epidemi som				
2 choleralazareth i	1 modvirke cholera	1 fende cholerasygdom	1 epidemi til				
2 cholerbetrængte paa	1 lie cholera	1 epidemieu i	1 epidemiens stiftede				
1 with cholera	1 lc cholera	1 epidemiens kom	1 epidemiens it			3 farlige epidemi	
1 ved choleraens	1 kundskab cholera	1 epidemiens dels	1 epidemiens almindelig			2 epidemi der	
1 var choleraepidemien	1 icholeratiden befordret	1 epidemic must	1 epidemiens			1 the epidemic	
1 under epidemien	1 even cholera	1 epidemic are	1 epidemic			1 sarlige cholera	
1 under choleraepidemien	1 er icholeratiden	1 da cholera	1 disastrous epidemic			1 ovennævnte cholera	
1 kolera epidemi	1 epidemiens udbyttet	1 cokleraepide mien	1 de cholerasyge			1 kommende epidemi	
1 koleraen i	1 epidemic i	1 cholera washed	1 de cholerbetrængte			1 kolera ypidemi	
1 kolera en	1 enkelte cholera tilsa	1 cholera w	1 cholera udbrudt			1 inden choleraen	
1 kalde kolera	1 en cholera	1 cholera that	1 cholerasyge behandle			1 ifald choleraen	
1 hvilke choleraen	1 du cholera	1 cholera t	1 cholera som			1 hvor choleraen	
1 epidemi udbetalte	1 des cholera	1 cholerasygdom at	1 cholera paa			1 hvilke choleraadods	
1 epidemiens maatte	1 de cholerbetrængte	1 cholera quoique	1 cholera onfler			1 farlige kolera	
1 epidemi dar	1 de cholera	1 choleraapatienter snarest	1 cholera ligesom			1 farlige ehvleraepidemi	
1 epidemic and	1 cholera who	1 cholera ncristen	1 cholera is			1 er epidemi	
1 ent koleraen	1 cholera tilsa lde	1 cholera le	1 choleraepidemien var			1 epidemi udviklede	
1 dreadful epidemic	1 cholerasympomerne ja	1 cholera lazareth	1 choleraepidemien have	2 under cholera		1 epidemi ter	
1 choleratiden tilsendte	1 cholera souvent	1 cholera lazareth	1 cholerbetrængte paa	2 cholera epidemien		1 epidemiisk udbydernes	
1 choleratiden i	1 cholera patients	1 cholera her	1 berffente kolera	1 koleraen optagne	3 som epidemi	1 epidemic for	
1 choleraepidemien beforedret	1 choleraapatiinter snarest	1 cholera har	1 at koleraen	1 kartoffelepidemien almindelig	2 epidemi paa	1 É epidemi	
1 choleraepidemien i	1 cholera mixture	1 cholera froclama	1 at kolera	1 fsrgelige cholera	2 epidemi og	1 ehvleraepidemi udviklede	
1 choleraepidemien godt	1 cholera lc	1 cholera est	1 at cholera	1 for kartoffelepidemien	1 var kolera	1 cholera terrain	
1 choleraens oprådere	1 cholera lazareth	1 cholera er	1 as kolera	1 epidemi var	1 vare choleratilfældene	1 choleraen var	
1 choleraen nu	1 cholera kom	1 choleraepidemien vppebaarne	1 asiatsk cholera	1 epidemiens nodliddende	1 the epidemic	1 choleraen hjemsgote	
1 cholera being	1 cholera it	1 cholera epidemic	1 as cholera	1 epidemiens flsfe	1 kolera faaletes	1 choleraen atter	
1 cholera after	1 choleraic hut	1 choleraen nu	1 anledning afcholeraen	1 epidemiens den	1 fom epidemi	1 i choleraepidemien	1 choleraadotssald udgor
1 cholera	1 cholera having	1 choleraen bar	1 af epidemiens	1 cholera epidemi	1 epidemiens mistede	1 de cholerbetrængte	1 choleraadods faldenes
1 bemærkes epidemi	1 cholera has	1 choleraacs befrygtede	1 afcholeraen fra	1 cholera epidemi	1 chvlera epidemi	1 choleraepidemien hensidder	1 cholera begge
1 bastende kolera	1 cholera har	1 cholera certifieater	1 af choleraen	1 af koleraen	1 choleraatifældene paa	1 cholerbetrængte paa	1 af choleraadotssald

Bigrammes

