

# Free Institutional Internet References and the Language of Covid-19

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## Abstract

The present paper is concerned with the inclusion in free English-language institutional internet reference works of terms used to discuss health, disease, treatments and medical breakthroughs in the context of COVID-19. The focus is on the glossaries that are available on the websites of the UK Parliament and UK Government, i.e. on credible and authoritative platforms that are in various ways intended to serve as seats for asymmetrical transfer and mediation of knowledge about their operations and services (Engberg & Luttermann, 2014): *Coronavirus (Covid-19) Definitions* is the online interactive glossary published by the Office of National Statistics in 2022; the *COVID-19 glossary* is published by the Parliamentary Office of Science and Technology (POST). Cross-verification of wordlists and lexicographical treatment in selected dictionary entries is carried out vis-à-vis free and unlocked content from the Oxford Reference platform and the English Wiktionary. Integrating insights from the Function Theory of Lexicography (Bergenholtz & Tarp, 1995), and Wiegand's (1977 ff.) Actional-Semantic Theory of Dictionary Form, we are able to demonstrate that Coronavirus (Covid-19) Definitions and the COVID-19 Glossary provide basic answers to the queries of lay users – which is in line with the government's social responsibility to pursue health promotion, prevention of ill health and health protection.

**Keywords:** Actional-Semantic Theory of Dictionary Form, COVID-19 terms, English, free institutional internet glossary, Function Theory of Lexicography, lay-users

## 1. Introduction

When new concepts need to be named, there are usually three options: extending the meaning of existing words (and phrases) in neosemanticisms, coining a new word or phraseological unit based on existing rules, also complex words relying on grammatical and extra-grammatical morphology, and borrowing words and phraseological units (Durkin, 2009; ten Hacken & Panocová, 2020, adapted).

The World Health Organization declared the COVID-19/SarS-COV-2 outbreak a pandemic on 11 March 2020 (WHO, 2020). They determined that it was “an established and ongoing health issue which no longer constitute[d] a public health emergency of international concern (PHEIC)” on 5 May 2023 (WHO, 2023).

The unprecedented circumstances of the COVID-19 pandemic have necessitated adopting terms from virology, public health, medicine and allied disciplines in general language usage, as well as coining and using new terms related to those aspects of life that have been impacted. This was part of the strenuous efforts put in medical journalism (Hettiarachchi & Noreen, 2020, p. 38), official government communication and the press towards accomplishing related objectives – from increasing public awareness and disseminating knowledge about COVID-19 research, health and policies (Keshvari et al., 2018, p. 14), through promoting specific measures and counter fear, to providing round-the-clock news coverage of reports, statements and publications by national and international news agencies, health organizations, research centers, institutes and institutions. There was an urgent need for researchers and health professionals to share specialist information, and for professionals, organizations, local and national governments to reach out to the public at large.

With the web in power stage (Moor, 2005), our knowledge search habits have increasingly changed. We have learnt to demand fast(er) access to more and preferably free information (Sunstein, 2008; Lorentzen & Theilgaard, 2012; Lew & de Schryver, 2014). This means sidelining active searches and long-established paying options like the authoritative Oxford Dictionaries, in print or online, which command trustworthiness and esteem based on a history of subsequent editions, taken-for-granted lexicographic and professional expertise and the publisher's unrivalled reputation. On the other hand, webpages on the front end of google search listings are

automatically held to be credible and authoritative sources of knowledge (Sunstein, 2008; Lorentzen & Theilgaard, 2012). In the context of the Covid-19, browsing the internet for terms would sooner or later cross-refer users to free collective reference works like Wikipedia or Wiktionary. Another scenario could involve users browsing freely-available sources on non-institutional and institutional platforms or landing on such pages when located at the front end of Google search listings (e.g., the UK Government's official directory, Gov.uk, or the pages set up by the U.S. Food and Drugs Administration at Fda.gov).

This raises a number of issues. Online lexicographical works by amateur lexicographers may provide thin if incorrect content (Lew & de Schryver, 2014), depart from lexicographic practice and be consistently inconsistent. Wiktionary may not be adequate for comprehension, and non-professional online reference tools may boil down to poor glossaries that explain terms for content published on the particular website, or products and services on offer (Fuertes-Olivera, 2009).

The present paper is concerned with the inclusion in free institutional English-language internet reference works of words and phrases, also new coinages, used to discuss health, disease, treatments and medical breakthroughs in the context of COVID-19. Another goal concerns starting discussion about meaning descriptions. The focus is on the glossaries that are available on the websites of the UK Parliament and UK Government, i.e. on credible and authoritative platforms that are in various ways intended to serve as seats for asymmetrical transfer and mediation of knowledge about their operations and services (Engberg & Luttermann, 2014; Cacchiani, 2018a, 2018b): *Coronavirus (Covid-19) definitions* (CoD) is an online interactive glossary published by the Office of National Statistics (ONS) in 2021; the *COVID-19 glossary* (CoG) is published by the Parliamentary Office of Science and Technology (POST). Cross-verification of wordlists and lexicographical meaning paraphrases in selected dictionary entries is carried out based on free and unlocked content from Oxford Reference (FrOR) and the English Wiktionary (EN-Wik). The analysis is strictly qualitative and aims to lay the groundwork for evaluating the strengths and weaknesses of internet references.

The paper is structured as follows. Section 2 provides some introductory remarks on the compilers, functions and target users of the reference works under consideration. Section 3 is devoted to methodology and framework of analysis. While we work in the tradition of the Function Theory of Lexicography (Bergenholtz & Tarp, 1995), we also adopt insights from Wiegand's (1977 ff.) Actional-Semantic Theory of Dictionary Form. Section 4 looks into the inclusion of COVID-19-related lemmas in CoG and CoD vis-à-vis FrOR and EN-Wik, in connection with their purported functions and relevant extra-lexicographical social situations. Section 4 offers some concluding remarks.

## 2. Free Internet Reference Tools

In this section we look at the reference works under scrutiny through the lens of the Function Theory of Lexicography (Bergenholtz & Tarp, 1995; Bergenholtz & Nielsen, 2006; Fuertes-Olivera, 2009; Agerbo, 2017). The typical extra-lexicographical social situation associated with Covid-19 consisted of lay-users surfing the net for utilitarian data that could fulfil their cognitively-oriented and possibly operative questions. In lexicographic terms, cognitively-oriented needs cover the acquisition of linguistic and semantico-encyclopaedic information ("What?") (Tarp, 2008; Bergenholtz & Bothma, 2011); when the user's needs and questions are operative, the focus is on procedural information ("How to?") (Agerbo, 2017).

*Coronavirus (Covid-19) definitions* (CoD) is the UK government's interactive glossary (as per page name, *Coronavirus (COVID-19) Interactive Glossary*) (Note 1). It was published during the Covid-19 emergency by experts at the Office for National Statistics (ONS), or the UK's largest independent producer of official statistics and its recognized national statistical institute. Broadly, their mission is to collect, analyze and disseminate statistics which serves the public good, about the UK's economy, society and population (Note 2). Particularly, CoD is the outcome of work carried out by ONS experts and associates working on the Health and Social Care core engagement theme, who take up recommendations from the Covid-19 Infection Surveillance Digital Advisory Board (Note 3).

CoD is a multi-field, free institutional restricted (i.e., domain-focused) glossary that allows access to around 60 lemmas via a search box and drop-down menu. It inherits features that characterize the Gov.uk platform. In the words of the UK Government, Gov.uk is "[t]he best place to find government's services and information" (Note 4). Research into the digital written text and the visual representation of utility content on selected directories (Cacchiani, 2018a, 2018b) indicates that a significant portion of Gov.uk is designed for asymmetric communication of specialized knowledge from the UK government to lay citizens; the platform comes close to realizing mature information formats (Tognazzini, 2014) via recourse to usable (Nielsen, 1995 ff.) webpage layout and user interfaces especially intended to give citizens quick and easy help and support with utility

content, or basic users' queries about knowledge and documentation that they might need. We therefore assume a tool that serves the knowledge-oriented needs of specific target users – semi-experts and lay-users – who are increasingly confronted with scientific and technical concepts and require assistance with comprehending information about the evolving Covid-19 scenario.

We do not assume that CoD's target users are experts or semi-experts in health and medicine, economics and social science. One reason for this appears to be that CoD is not connected via clickable buttons to expert content such as provided on Freedom of Information (FOI) (Note 5) – with pdf landing sites answering user requests of documentation, e.g. *Deaths from COVID-19 by vaccination status up from January to August 2023*, released on 20 September 2023. Additionally, CoD is not linked to the specialist datasets and publications on Coronavirus (COVID-19) (Note 6) on the social and economic impact of COVID-19.

A comparable resource appears to be the *COVID-19 glossary* (CoG) (Note 7). The resource was published on 13 January 2022 by the Parliamentary Office of Science and Technology (POST), whose mission is to source “reliable and impartial scientific research for Parliament.” CoG comprises nearly 200 “definitions for the most commonly used scientific terms relating to COVID-19, as well as a list of organizations involved in public health, their acronyms and descriptions of their work.”

Based on transmitter's descriptions, inclusion in UK institutional pages, as well as use of plain language in the digital written copy preceding the glossary and layout arrangements for information layering and scannability, it seems reasonable to suggest that the CoG caters for the comprehension needs of the general public. Observed usability features that aim to transfer, mediate (Engberg et al., 2018) and make utility content accessible include high Flesch Reading Ease scores (70 to 80 out of 100; as determined by the WebFX Readability Test Tool), as well as clauses with no more than 15 words (Loranger, 2017) and writing at the 6-8 Grade Level for the general audience and at up to Flesch-Kincaid Grade Level 12 for experts (Nielsen, 2015). Other important considerations are the use of in-page hyperlinks with items that do not overlap conceptually within each (sub-)category (Huei-Hsin & Chan, 2023) and recourse to interlocutive dialogic devices (Bres, 1985) such as imperatives and second-person pronouns for addressing users. Importantly, the glossary is also intended for assisting users with decoding and understanding POST contents: this is demonstrated by the *COVID-19* clickable button, which takes users to another location (Note 8) for summaries and full PDFs of research briefings, rapid responses and notes about aspects of health and social care related to Covid-19.

*Oxford Reference – Answers with Authority* (OR) (Note 9) is an entirely different tool. Libraries in the UK maintain subscriptions for public use to OR platform – which provides access to Oxford University Press's authoritative Dictionaries, Companions and Encyclopedias in 25 subject areas. Compiled by leading experts, their express function is to make specialized knowledge accessible to multiple target users. Generally, based on the outside matter (preface and promotional blurb), the titles that have been remediated for online can be said to serve as quick references for experts and professionals, as reference materials for those working in allied professions, as essential A-Zs for students in the subject field, as guides for professionals in other subject fields, and as answers to knowledge-oriented question that lay-users might have about various aspects of the subject and area of concern. We are exclusively interested in free and unlocked content (henceforth, Free Oxford Reference: FrOR) such as macrostructures, partial microstructures and full entries available in Overview. In particular, the emphasis lies in areas in the domain ‘Medicine and Health’, as well as in ‘English Dictionaries’.

*Wiktionary* (Wik) is the prototype of a free multi-language internet dictionary that has been collectively compiled by people that do not belong to recognizable private or public organizations. All entries can be edited by users. Users and compilers are said to be “passionate about quality” (Note 10). Ideally, they follow the standard lexicographic protocol that is available in the outer matter. Their goal is to reach consensus within the community around accurate, neutral summaries of facts for prospective dictionary users (Fuentes-Olivera, 2009, p. 107). On the day it was last accessed (1 December 2023), the *English-language Wiktionary* (EN-Wik) includes a dictionary, “thesaurus, a rhyme guide, phrase books, language statistics and extensive appendices. Besides definitions, dictionary entries comprise information about etymologies, pronunciations, sample quotations, synonyms, antonyms and translations” (Note 11).

### 3. Methodology and Framework of Analysis

Our intention in this paper is to look into the macro- and microstructures of CoG and CoD in connection with their purported functions, compiler profiles, user needs and profiles, and the relevant extra-lexicographical social situations. Meaning representation within microstructures and, where present, mediostructures will be only addressed in passim. To this purpose, we work in the tradition of the Function Theory of Lexicography (Bergenholtz & Tarp, 1995). While we are fully aware of the many ways in which it has rejected, incorporated or

modified other paradigms over time – for one, Wiegand's (1977 ff.) notion of *genuine purpose* of the dictionary (see Bergenholtz & Tarp, 2003) – we integrate basic tenets from the Function Theory with notions from Wiegand's (1977 ff.) Actional-Semantic Theory of Dictionary Form.

Addressing the needs of lay-users in free restricted institutional glossaries and in remediated utilitarian, commercial paper dictionaries for multiple target users has a bearing on wordlist, mediostructure and type and amount of information included in the entry. First, semasiological structures allow students, semi-experts and lay users to retrieve information, which they would not be able to look up via the underlying concept or related hyperonym. Regarding CoD and CoG, in terms of Search Engine Optimization, entries accessed via queries in the search box or the drop-down menu (as in CoD) might offer short and perhaps thin content above-the-fold; entries in wordlists that extend beyond the current screen might prove to be even shorter and thinner. Turning to professional lexicographic resources like the books in OR, and, for that matter, FrOR, we expect entries in a semasiological macrostructure, with short but not deplorably thin content that users will visualize above the fold.

Generally, for longer copy, modularity is a distinctive feature of user-friendly dictionary entries that are the outcome of professional lexicography (e.g. OR dictionaries, though not CoD and CoG). That is, different senses are listed in a nested structure. On the other hand, entry size is kept within reasonable limits thanks so specific features of the medio- and microstructure: at the mediostructural level, cross-referencing to related entries as a form of meaning description and further explanation of synonyms, hyperonyms, etc. or, at the microstructural level, condensation via standard dictionary conventions. Wiegand (1977, 1992, 2015) key terms are used to start discussion of lexicographical practice in dictionary entries (reference units; A [Wörterbüchartikel]) from CoD and CoG vis-à-vis FrOR and EN-Wik.

a) (Non-natural) *condensation* (v.: condensed [verdichtete]): reduction of form, e.g. via ellipsis, summary, substitution, shifting, abbreviation, etc.

b) *Lexicographical definition*: a text made up of *definiendum*, *definitior* (definition copula or absent relational expression), *definiens* (meaning paraphrase; BPA [Bedeutungsparaphraseangabe]).

c) Discrete *functional text segment* within the entry: (basic) reference unit – either *item* or *sentence* – that can be identified based on function (and position); functional additions are enlarging text segments that are not separable in a functional positional way. For instance, usage glosses, specifications of the reference domain in the definiens (domain labels, FGA [Angabe des Fachgebiets]), specifications of the referent (*BezSPA* [Angabe des Spezifizierung des Bezugsobjects]), or, expanding on that, of other elements within a specific frame (*FrSPA* [Angabe des Spezifizierung der Frame]). Elementary segments only have one segment and one function. Non-elementary segments can have homogeneous or heterogeneous segments.

d) *Lexicographical meaning description*: expository text that helps solve communication problems via answering predictable questions from prospective users (Wiegand, 1992: *user prerequisite principle*).

e) *Frame-based entry structure*: with answers about basic descriptors in the definiens, which denote *knowledge of categories* (K(K) [Kategorie (Wissen der Kategorie)]), *function* (K(F) [Kategorie (Wissen der Function)]), *forms and components* (K(FBT) [Kategorie (Wissen der Form und Bestandteile)]), *materials* (K(M) [Kategorie (Wissen des Materiales)], also causes).

f) *Hierarchical microstructure*: the structure of the reference unit, comprising information of *equivalents* (*ÄquA* [Angabe zur Äquivalenz]) and *comments* and *subcomments* (*Ko* [Kommentar], *SKo* [Subkommentar] on *semantics* (SSK [Subkommentar zur Semantik] in segments on *meaning* (*BA* [Bedeutungsangabe]) such as *synonym* (*SynA* [Synonymeangabe]), *meaning paraphrases* (*BPA*), *examples* (*KbeiA* [Kompetenzbeispielangabe]), etc. Segments giving *polysemy*, as in nested structures, are specified by the acronyms *PA* [Polysemie Angabe, e.g. PA1 Polysemieangabe 1].

g) *Integrate core*: Segments giving meaning, which play a crucial role in meaning description. It may be followed by front or back integrates or comments, e.g. on *etymology* (*EtyA* [Angabe zur Etymologie]). *Semantico-encyclopaedic* information may be present, e.g. in semantico-encyclopaedic comments (*sem-enzyK* [semantisch-enzyklopädisch Kommentar]).

h) *Enlargement*: BPAs may be enlarged in many ways. For instance, with mediostructural *cross-references* (*VerwA* [Verweisangabe]) to additional *specialist information* (*AFE* [Angabe zur fachlichen Erklärung]).

Regarding CoD, it is important to note that in line with usability guidelines for content layering and scannability, separate wordlists are arranged around conceptual domains within what we may refer to as the 'COVID-19 ICM' (sensu Lakoff, 1987: ICM: Idealized Cognitive Model), thus approaching: terms used to describe the biology of the virus (*Bio*), terms used in understanding how covid spreads and how it can be contained (*Spr-Cont*); terms

used in research about COVID-19 (*Res*), e.g. in subfields such as epidemiology and immunology, biomedicine and biochemistry; terms about statistics (*Stats*), which are an essential part of research in (public) medicine and health, epidemiology and immunology, biomedicine and biochemistry; terms used in drug development (*Dev*) and in Covid-19 treatment (*Treat*); terms used to discuss the immune response to Covid-19, immunizations and vaccines (*Resp*); names of national and international organizations involved in the Covid-19 response, and in public-health and medicine regulations, decision-making and scientific advice in response to Covid-19 (*Org*).

The analysis in Section 4 is organized around the domains Bio, Spr-Cont, Res, Stats, Dev, Treat, Resp and Org. Matching tables will be presented in turn, with separate columns for the wordlists of CoD and CoG, OR, FrOR, and OD – i.e. free, unlocked and restricted entries in OR's English Dictionaries – as well as EN-Wik. Based on manual examination of all entries, they detail information around the descriptors in (a) to (c). Additional observations on selected lemmas within each category are given as the analysis unfolds. The section concludes with some remarks on lexicographical practice in the microstructures.

a)  $\surd$ : Inclusion within the wordlist of terms in the particular subfield, also multi-word expressions ( $\surd$ *Ac*: Acronym;  $\surd$ *FF*: Full form). Alternatively, *BPA*: Inclusion in the meaning paraphrase; *PA*: Inclusion in nested entries; *Bei*: Inclusion in explanatory example; *FE*: Occurrence in items giving further specialist information; *Ver*: Internal/External cross-reference, e.g. to the English Wikipedia (Wip).

b) *R-Lemma*: Inclusion of terms that are paradigmatically related (*P*) to CoD and CoG lemmas via synonymy, hyponymy, hyperonymic and hyponymic relations, meronymy or holonymy (Murphy, 2016), or that can be associated to CoD and CoG lemmas based on external relations in the ICM (*ICM*) such as action types (e.g. purposive 'is used for'), process types (e.g. originatory 'originates/is converted into'), etc. (Ruiz de Mendoza Ibáñez & Pascual Aransaez, 1997-1998); *Fo-Lemma*: inclusion of lemma with similar form.

c) *Gen*: Inclusion of general vocabulary. For polysemy, *Bez*: Lemma with changed referent; *Fr*: Lemma with different frame features; *FG*: Lemma in a different subject field/reference domain; *Met*: Metonymic semantic shift.

#### 4. Data Analysis and Discussion

Table 1 presents an overview of the terms used to describe the biology of the virus (Bio). General references like OD and EN-Wik provide ample coverage of *DNA* and paradigmatically related terms (*gene*, *genome*, *RNA* and *mRNA/messenger RNA*), co-hyponyms like *pandemic* and *epidemic*, and new Covid-related words, such as *COVID-19* and *SARS-CoV-2* in the fields of public health, medicine and epidemiology. *Lineage*, *carriage*, *fitness* or *reservoir* are generic terms – there are no polysemy items that cover reference in the subfields of genetics and biochemistry/biology.

OD resources at OR dictionaries can assist lay-users with the comprehension of words and terms that have become more common with Covid-19. In this connection, *Garner's Modern English Usage* (2022, 5th ed.) states that *pandemic* has become significantly more frequent than before the emergency, "ubiquitous in fact" with particular reference to the Covid-19 epidemic (GME: *pandemic*). Crucially, however, coverage of new terms such as *COVID-19* and *SARS-CoV-2* in the nomenclature for respiratory diseases and their causing agent is limited in OR to *A Dictionary of Nursing* (2021, 8ed.; DN: *COVID-19*; *SARS-CoV-2*) and absent from FrOR, while *long COVID* and *spike protein* have not been recorded yet. Also, OR resources in specialist (sub)fields do not cover metonymic shifts in general language use. Consider *Coronavirus*: as per the Baltimore classification of viruses and enveloped viruses, in science *coronavirus* denotes "[a] family of viruses that have a positive-strand RNA genome and are characterized by a viral envelope from which petal-shaped spikes protrude. The virus causing severe acute respiratory syndrome (SARS) in humans belongs to this family. Its genome contains 27,727 nucleotides." (*A Dictionary of Genetics*, 2014, 8. ed.; DGn: *coronavirus*). On the other hand, in the Oxford English Dictionary online, 2 ed. and Additions, sense 2 of the *Coronavirus* entry – originally an addition from 2003, during the SARS-1 outbreak – has been rewritten to include circumstantial information about the more recent Covid-19, as well as to account for the metonymic shift from infective agent to the disease in general language use, possibly an instance of determinologization (sensu Meyer & Mackintosh, 2000): "Any of the coronaviruses (genus *Betacoronavirus*) responsible for outbreaks of life-threatening respiratory disease in humans, esp. the major pandemic beginning in 2019 (see Covid-19 n.). Also as a mass noun: the disease caused by such a virus; *spec.* Covid-19' (OED: *coronavirus*, n. 2)." (For discussion of the language of COVID-19 in the Oxford English Dictionary, see Salazar & Wild, 2022.)

Table 1. Covid-19-related terms in Bio

	CoD	CoG	OR	OD	FrOR	EN-Wik
Antigenic drift		√	√ Antigenic drift; Fo/Syn-Antigenic shift		√ Antigenic drift; Fo/Syn-Antigenic shift	
Antigen		√	√	√	R-Antigen-antibody immune response	Verw-Wip- Antigen
Carriage		√	PA-Carriage	Bez-Carriage	Bez-Carriage	Bez-Carriage
Coronavirus	√		√	√; R-Coronavirus	√	√
COVID-19	√	√	√	√		√
DNA		√	√	√	√	√
Endemic disease		√	√	R-Endemic	√	R-Endemic
Epidemic	√		√	√	√	Verw-Wip-Epidemic disease
Fitness		√	√	Gen-Fitness	√	Gen-Fitness
Gene		√	√	√	√	√
Genome		√	√	√	√	√
Lineage		√	√; R-Cell lineage mutans	R-Cell lineage; Bez-Lineage	√; Cell lineage mutants	
Long COVID		√		√		√
mRNA		√	√FF-Messenger RNA	√FF-Messenger RNA	√; √FF-Messenger RNA	√
Mutation		√	√	√	√	√
Omicron		√		√		
Outbreak	√		√	√; Bez-Outbreak	√	√
Pandemic	√		√	√	√	√
Replication		√	√	Gen-Replication	√	√
Reservoir		√	√ Reservoir; R-Reservoir of infection	Bez-Reservoir		√
Reverse zoonosis		√	R-Zoonosis			
RNA		√	√	√	√	√
Sars-CoV-2	√	√	√; R-SARS	√	R-SARS	√
Shedding		√				
Spike protein		√		√		√
Variant		√	√	√	√	√
Variant Of Concern (VOC)		√	FG-VOC			√
Variant Under Investigation (VUI)		√	FG-VUI			
Viral load	√		√	√		√
Virology	√	√	√	√	√	√
Virulence	√	√	√	√	√	√
Virus	√		√	√	√	√
Virus Like Particles (VLPs)		√				√
Zoonotic disease	√	√	√ Zoonotic disease; R-FO-Zoonosis; F-Zoonotic viruses; R-Zoonotic transmission	√	R-Zoonotic transmission; R-Zoonotic viruses	R-Zoonosis-VERW-Zoonotic

The observations on Table 1 find support in Table 2, which reviews the terms related to the spread and containment (Spr-Cont) of Covid-19. An important point concerns terms that were borrowed between specialist domains (Durkin 2009, p. 164: borrowing within languages, between different specialist registers) and/or have become more frequent than before in relation to covid. CoD and CoG offer access to one-word and multi-word units, including highly technical terms such as *False positive* and *False negative*, *Flattening the curve*, *Patient zero*, *Booster* and *Super-spreader*, which have only recently become more common in expert discourse and

general language use.

Turning to borrowing between different specialist registers, in sociology and geography *Social distance* denotes the ‘perceived distance between social strata (different socio-economic, racial, or ethnic groups), usually measured by the amount of social contact between group’ (*A Dictionary of Geography*, 2023, 6 ed.; DGeo: *social distance*); the associated action, *Social distancing*, is first attested in the OED (*social distancing*, n. 1) in 1957. In health care it denotes ‘[t]he action or practice of maintaining a certain physical distance from, or limiting physical contact with, another person or people (esp. family and friends), in order to reduce the spread of an infectious disease. The neosemanticism, first recorded in OED in 2004 (*social distancing*, n. 2), was previously used in connection with the SARS-1 outbreak of 2002-2004 and came to prominence during the COVID-19 pandemic. On the other hand, *Shielding* (CoD) is defined with reference to physics and spectrometry, while *S-gene* (CoG: *S-gene drop-out*, where S-gene is the gene that gives the spike protein its crown-like shape) is one of two *Sex-genes* in OR, FrOR, OD and EN-Wik.

Table 2. Covid-19 related terms in Spr-Cont

	CoD	CoG	OR	OD	FrOR	EN-Wik
Accuracy test		√	√; R-Accuracy	Gen-Accuracy	√; R-Accuracy	Gen-Accuracy
Aerosol	√		√	√	√	
Airborne transmission	√		FE-Indirect transmission; FE-Contact		FE-Indirect transmission; FE-Contact	
Antibody test	√	√	√	√	√	
Antigen test		√	√	R-Antigen	R-Antigen	
Asymptomatic	√	√	√	√	√	√
Attack rate		√	√		√	
Booster			√	√	√	
Case fatality ratio		√	Fo-Case-fatality rate	Fo-Case-fatality rate	Fo-Case-fatality rate	Verw-Wip-Fo-Case-fatality rate
Contact tracing	√	√	√	√	√	√
COVID-Status Certification		√	R-Certificate of vaccination; R-International certificates of vaccinations		R-Certificate of vaccination; R-International certificates of vaccinations	
Cycle threshold	√		R-Threshold	Gen- Threshold	R-Threshold	√
Diagnostic test		√	√; √FE-False negative test		√; √FE-False negative test	
Doubling time		√	√		√	
Droplet transmission		√	R-Transmission; Bei-droplet transmission			
Epidemiologist		√	√	√	√	√
Epidemiology		√	√	√	√	Verw-Wip-Epidemiology
Excess mortality		√				
False negative	√	√	√	√	√	√
False positive	√	√	√	√	√	√
Flatten(ing) the curve	√	√	R-Epidemic curve; (in Medicine and Health), R-Gaussian curve; R-Bell-shaped curve; R-J-shaped curve	√	R-Epidemic curve; (in Medicine and Health), R-Gaussian curve; R-Bell-shaped curve; R-J-shaped curve	√
Fomite		√	F-Fomes	F-Fomes	F-Fomes	√
Growth rate		√	√	RE-Bei-Growth rate	√	

Immunity passport	√			√		
Incidence		√		√		√
Incidence		√		√		√
Incubation period	√	√	√	√	√	√
Infection fatality ratio		√	Fo-Fatality rate	R-Gen-Fatality	Fo-Fatality rate	R-Gen-Fatality
LAMP test or RT-lamp test (Reverse Transcription Loop-mediated isothermal AMPLification)		√	R-Loop mediated isothermal amplification; LAMP; R-Reverse transcription		R-Reverse transcription	
Lateral flow test		√		Lateral flow		√
Lockdown	√		√	√		√
Mass spectrometry		√	√	√	√	√
Mass testing		√	R-Testing	R-Testing	R-Testing	
Molecular test		√				
Morbidity		√	√	√	√	√
Mortality		√	√	√	√	√
Non-pharmaceutical interventions (NPIs)		√	R-Upstream intervention; R-Early intervention; R-Nursing intervention; R-Crisis intervention	R-Pharmaceutical intervention	R-Upstream intervention; Early intervention; R-Nursing intervention; R-Crisis intervention	
Nose and throat swabs	√		R-Swab	R-Swab	R-Swab	R-Swab
PCR (Polymerase Chain Reaction) test		√	√-PCR; R-Multiplex PCR; R-RT-PCR	√	R-Multiplex PCR; R-RT-PCR	R-Polymerase chain reaction
Personal Protective Equipment (PPE)	√		√; √Acr-PPR	√	√	√
Pooled testing		√	√-Fo-Pooled comparison test; Pooling		√-Fo-Pooling; R-Active Pool	
Positivity rate	√		R-Positivity			√
Prevalence	√	√	√	√	√	√
Primary case		√	√	√		
Quarantine	√		√	√	√	√
R (Reproduction Number)		√	√			
R nought	√		Fo-R0; Fo-R0t	Fo-R0	Fo-R;-Fo-R0t	Fo-R0
Rapid test		√	R-Speed test; R-Rapid epidemiological assessment		R-Speed test; R-Rapid epidemiological assessment	
Real-time Assessment of	√		R-Rapid epidemiological	R-Community transmission	R-Rapid epidemiological assessment	



Community Transmission (REACT)			assessment			
S-gene drop-out	√		PA-FG-S genes; R-G-Protein	Fo-PA-Sex gene		PA-FG-S genes
Saliva test	√		√	√	√	√
Self-isolation	√		R-Isolation; R-Strict isolation	√ Self-isolation; Gen-Isolation		√
Self-sampling	√		Fo-Self-selected sample; Fo-Self-selection sample		Fo-self-selected sample	
Sensitivity	√		√; R-PA-Sensitization	Gen-Sensitivity	√; R-PA-Sensitization	√
Sequencing	√		√	√	√	√
Serial interval	√		√		√	√
Shielding	√		FG-Shielding	FG-Shielding	FG-Shielding	FG-Shielding
Specificity	√		Fo-Specific	√GEN-Specific	Fo-Specific	√
Super-spreader	√				Fo-Superspreader	√
Swab test and self-swabbing	√					
Symptomatic	√	√	√	Gen-Symptomatic	Fr-Symptomatic treatment	
Test and trace	√	√				√
Transmissibility	√		Fr-Transmissible disease	√	Fr-Transmissible disease	√
Transmission	√		√	Gen-Transmission	√	√
Quarantine	√	√	√	√	√	√
Vaccine interval	√		R-Interval	Gen-Interval	R-Interval	Gen-Interval
Vaccine passport	√		R-Certificates of vaccination; R-International certificate of vaccination in travel and tourism		R-Certificates of vaccination; R-International certificate of vaccination in travel and tourism	√
Ventilation	√	√	√	√	√	√

Table 3 presents the very few terms in statistics (Stats) that were not included in other modules. What should not go unnoticed is that multi-word units such as *adjusted odds ratio* (CoD) and *credible interval* (CoG) are not represented in other resources.

Table 3. Covid-19 related terms in Stats

	CoD	CoG	OR	OD	FrOR	EN-Wik
Absolute risk		√	√		√	
Adjusted odds ratio		√		R-Odds ratio	R-Adjustment; R-Odds ratio	R-Odds ratio
Credible interval	√		R-Interval	R-Interval	R-Interval	
Odds ratio	√	√	√	√	√	√

Table 4, comprising terms in drug development (Dev), Table 5, organized around terms in Covid-19 treatment (Treat), and Table 6, with terms used to discuss the immune response to Covid-19, immunizations and vaccines (Resp), all align with the observations above. OR, EN-Wik, as well as the combined wordlists of CoD and CoG, provide coverage of one-word and multi-word units that have entered the general vocabulary with their referents (e.g. *Antibiotics*, *Anti inflammatories* and *Side effects*, as in patient information leaflets; *Immune response* from medicine and epidemiology). A case in point is *Herd immunity*: OED's earliest illustrative example with a human referent is from 1927 (OED: *herd immunity*), in connection to one of the most notorious outbreaks of diphtheria in the 1920s. Other terms in CoD and CoG are reductions of longer units in OR, e.g. *Adverse event* (*Adverse*

*health event*), *Antibody therapy* (*Antibody-directed drug therapy*); *Antiviral* (*Antiviral drug*). Yet another case are head-modifier constructs with head and modifier, often with some form type of reduction, which are given as separate lemmas in OR, e.g. *Active component* (*Biologically active* and *Component*). Finally, lemmas in CoD and CoG can be part of meaning descriptions, specialist comments or technical examples, e.g. *Recombinant protein-based vaccine* in OR's *Recombinant protein*, or *Live-attenuated vaccine* in OR's *Immunization*.

Table 4. Covid-19 related terms in Dev

	CoD	CoG	OR	OD	FrOR	EN-Wik
Adverse event		√	Fo-Adverse health event		R-Adverse effect; R-Critical incidents	
Antibody therapy		√	Fo-Antibody-directed drug therapy		Fo-Antibody-directed drug therapy	
Antiviral		√	√; Fo-Antiviral drug	√	Fo-Antiviral drug	√
Antiviral drug resistance		√	R-Drug resistance	R-Drug resistance	R-Drug resistance	
Antiviral prophylaxis		√	√	√	√	Verw-Wip-R-Prophylaxis
Convalescent plasma		√	R-plasma	Gen-Convalescent; R-plasma	R-Plasma	Verw-Wip-Convalescent plasma
Good		√	√		√	
Manufacturing Practice (GMP)						
Monoclonal antibody		√	√	√	√	√
Pharmacovigilance		√		√		√
Side effects		√	√	√	√	√

Table 5. Covid-19 related terms in Treat

	CoD	CoG	OR	OD	FrOR	EN-Wik
Anti inflammatories		√	√	√	√	Verw-Wip-Anti-inflammatory
Extracorporeal Membrane Oxygenation (ECMO)		√	√		√	
Molnupiravir		√				
Ronapreve		√				
Sarilumab		√				√
Sotrovimab		√				√
Tocilizumab		√				√
Ventilator		√	√	Gen-Ventilator	√	√

Table 6. Covid-19 related terms in Resp

	CoD	CoG	OR	OD	FrOR	EN-Wik
Active component		√	R-Component; R-Biologically active	Gen-Component	R-Component; R-Biologically active	
Active immune response		√	R-Immune response	R-Immune response	R-Immune response	Verw-Wip-Immune response
Adenovirus-based vaccine		√	R-Adenovirus	R-Adenovirus	R-Adenovirus	Verw-Wip-R-Adenovirus
Adjuvant		√	√; R-Adjuvant therapy	√	√; R-Adjuvant therapy	Verw-Wip-Adjuvant
Adjuvanted vaccine		√	R-Fo-Adjuvant		R-Fo-Adjuvant	
Antibiotic		√	√	√	√	√
Antibody	√	√	√	√	R-Monoclonal antibody	√
Attenuated vaccine		√	√			
B cells		√	√	√	√	Verw-Wip-B-cell
Booster	√		√; Fo-Booster dose	√	√; FO-Booster dose	
Cold chain		√	√	FG-Cold chain	√	Verw-Wip-Cold chain
Correlate of protection		√				
Cytokines		√	√	√	√	√
Disease modifying vaccine		√	R-Modifier		R-Modifier	R-Disease-modifying
DNA-based vaccines		√	Fo-DNA vaccine		Fo-DNA vaccine	
Dosing interval		√	R-Dose; FG-Dose fractionation	R-Dosage	R-Dose; FGA-Dose fractionation	R-Dosage
Eradication of disease		√	√	Gen-Eradication	√	Gen-Eradication
Fill-finish		√				
Herd immunity	√	√	√	√	√	√
Immune response		√	√	√	√	√
Immunisation		√	√	√	√	√
Immunity	√	√	√	√	√	√
Inactivated vaccine		√	Bei-R-Killed vaccine	R-Vaccine	Bei-R-Killed vaccine	R-Vaccine
Inactivated virus		√	FE-Killed vaccine		FE-Killed vaccine	
Live-attenuated vaccine		√	FE-Immunization			
mRNA vaccine		√	√			
Passive immunity		√	√	√	√	√
Primary course of vaccination		√	√	R-Vaccination	R-Vaccination	
Priority groups		√				
Recombinant protein-based vaccine		√	FE-Recombinant protein		FE-Recombinant protein	
Scientific Pandemic Influence Group on Modelling (SPI-M)	√					
Self-amplifying RNA		√				
Stabilizer		√	√	Gen-Stabilizer	FG-Stabilizer	Gen-Stabilizer
Thrombocytopenia		√	√			√
Thrombosis		√	√	√		√
Trial batches		√				√
T cells		√	√	√	√	√
Vaccination		√	√	√	√	√
Vaccine candidate		√				
Vaccine coverage		√				
Vaccine take up		√				
Vectored vaccines		√	Vector dictionary of public health			
Virus Like Particles (VLPs)		√				√
Whole inactivated viral vaccine		√	Bei-Immunization			

Table 5 returns names of antiviral medicines in CoD and CoG that were granted marketing authorization for COVID-19 indication in 2021 and 2022, but were available on the market earlier, like *remdesivir*. Possibly as a consequence of editorial decisions, they are not covered in OR. In a slightly different manner, Table 7 (Org) demonstrates that OR and EN-Wik only record names of international bodies and organizations (*ECDC, EMA, FDA, WHO*), while CoG and to a minor extent CoD offer ample coverage of names for national groups (*SAGE*), companies (*IVQUIA, ZOE*), committees, institutes and organizations (*NICE*), agencies (*Public Health England, PHE*) and departments (*DHSC*) involved in the Covid-19 response, and in public-health and medicine regulations, decision-making and scientific advice in response to COVID-19.

Table 7. Covid-19 related terms in Org

	CoD	CoG	OR	OD	FrOR	EN-Wik
BEIS						
CDC						
CEPI		√				
CHM		√				
CMO		√				
COVAX		√				
CSA		√				
DHSC		√				
ECDC		√				√
EMA		√				√
FDA	√	√	√FF/Acr-Food and Drug Administration (FDA)	√	√FF/Acr-Food and Drug Administration (FDA)	√
GAVI, the Vaccine Alliance		√				
GCSA		√				
IQVIA	√					
JCB		√				
JCVI		√				
Lighthouse laboratories		√				
MHRA		√				
NERVETAG		√				
NICE		√				
Porton Down		√				
Public Health Agency (Northern Ireland)	√		R-Health agency; R-Governmental public health agency		R-Health agency; R-Governmental public health agency	
Public Health England (PHE)	√	√Acr-PHE	R-Health agency; R-Governmental public health agency		R-Health agency; R-Governmental public health agency	
Public Health Scotland	√		R-Health agency; R-Governmental public health agency		R-Health agency; R-Governmental public health agency	
SAGE						
SPI-B						
SPI-M						
UK HAS – UK Health Security Agency						
VTF						
World Health Organization (WHO)	√	√	√Acr-WHO; √FF- World Health Organization	√	√Acr-WHO; √FF- World Health Organization	√
WHO						
ZOE	√					

One final point that we would like to consider concerns the definiens. Whereas we cannot provide a systematic description of lexicographical definitions and meaning paraphrases for lack of space, we will offer some preliminary observations first, and then briefly look at the lemmas *Coronavirus*, *Coronaviruses*, *COVID-19*, *Variant* and *Variant of Concern (VOC)*.

Generally, reference units in CoD and CoG are extremely short, and nested structures with semantico-encyclopaedic subcomments and multiple subsenses for technical specifications are not an option. One exception is (1), *Variant of concern (VOC)* (CoG), with identification of function in the meaning paraphrase and specialist additions for different variant types (*Alpha, Beta, Gamma, Omicron*), in turn coming with relator (*also known as*), synonym/equivalent item, and encyclopaedic information (*It was first detected in England in December 2020*) or mediostuctural reference:

*Variant of concern (VOC)* (1)

Variant that, following a risk assessment by expert committees, is believed to have the potential for causing more severe disease, more deaths, increased transmissibility, resistance to treatments, or evading immunity conferred by vaccination or previous infection.

Examples of VOC currently monitored by UKHSA are [FE/Bei]:

*Alpha* –also known as B.1.1.7 or VOC-20DEC-01 [Syn/Äqu/FE]. It was first detected in England in December 2020 [sem-enzy].

*Beta* –also known as B.1.351 or VOC-20DEC-02 [Syn/Äqu/FE]. It was first detected in South Africa in December 2020 [sem-enzy].

*Gamma* –also known as P.1 or VOC-21JAN-02 [Syn/Äqu/FE]. It was first detected in Japan in travellers from Brazil in January 2021 [sem-enzy].

*Delta* – also known as B.1.617.2 or VOC-21APR-02 [Syn/Äqu/FE]. It was first detected in India in April 2021 [sem-enzy].

*Omicron* – also known as B.1.1.529 or VOC-21NOV-01 [Syn/Äqu/FE]. See the Rapid Response: [COVID-19: The Omicron Variant](#) [Verw].

(OdG: *Variant of concern (VoC)*)

[Length: 128 words; Flesch-Kincaid Grade Level: 6.3]

Recourse to condensation is exceptional in CoG (examples 1–3) and is only rare in CoD (examples 4–6). The very few mediostuctural references are one-way: they exploit orthographic conventions for internal cross-referencing in CoG (1: *Covid-19, The Omicron Variant*), and use a combination of dialogic mediostuctural additions and orthographic conventions in CoD (4: *See also antigenic drift*).

Most entries have an integrate core with definition by genus and differentia, specification of knowledge of category and function, and items or sentences that serve as specialist competence additions. They illustrate the case of objective exposition, which does not address users directly (Bres, 1985; Section 3). Whereas readability scores in some entries align with usability guidelines (Nielsen, 2015), as in examples (1) and (3), Latinate terminology can reduce readability in texts that strive for condensation, brevity and conciseness. as in (2).

*Coronaviruses* (2)

A family of viruses [K] that cause respiratory and gastrointestinal illnesses in people [F].

(CoG: *Coronaviruses*)

[Length: 13 words; Flesch-Kincaid Grade Level: 11.4]

*COVID-19* (3)

Coronavirus disease [K] first recognised in 2019 [FE/enzy]. The disease caused by SARS-CoV-2 [M, based in the ICM]. (CoG: *COVID-19*)

[Length: 13 words; Flesch-Kincaid Grade Level: 6]

*Variant* (4)

As a virus replicates, it can accumulate mutations [FBT/P]. A version of the virus with these mutations [K] is called a ‘variant’. Emergence of variants is a natural phenomenon. Most mutations have very little impact on the virus’s properties, others facilitate transmission or infection of other species [F]. See also *antigenic drift* [Verw].

CoD: *Variant*

[Words: 183; Flesch-Kincaid Grade Level: 11.4]

*Coronavirus* (5)

Coronaviruses are a family of viruses [K] that cause disease in people and animals [F]. They can cause the

common cold [F-Hypo] or more severe diseases [F-Hyper], such as COVID-19 [Hypo/Bei/FE].

(CoD: *Coronavirus*)

[Words: 27; Flesh-Kincaid Grade Level: 8]

*COVID-19* (6)

COVID-19 is the name used to refer to the disease [K] caused by the SARS CoV-2 virus [M], which is a type of coronavirus [K]. The Office for National Statistics (ONS) takes COVID-19 to mean presence of SARS-CoV-2 with or without symptoms [.

(CoD: *COVID-19*)

[Words: 44; Flesh Reading Ease Score: 9.1]

Turning to EN-Wik, the usual criticisms about this collective enterprise apply (Fuentes-Olivera, 2009). The lexicographical treatment accorded to each term is consistently inconsistent, despite the inclusion in the outside matter of guidelines for entry layout in the English side. For instance, *Coronavirus* cross-refers externally to the English Wikipedia (Table 1). Additionally, information in the definiens and specification of paradigmatically related meanings is often incorrect, as in the *COVID-19* entry in (7). Setting aside other issues, it is important to note that the domain label in sense 2 specifies that a term with precise reference in the disease nomenclature (*COVID-19*) has undergone a metonymic shift in *virology* (and not in general language use) to denote the causing virus (*Severe acute respiratory syndrome-related coronavirus 2*). Turning to paradigmatic meaning relations and external associations, the article cross-refers to so-called *Synonyms*, *SARS-CoV-2* and *SARSnCoV*, which are in fact mutual equivalents – in the sense that *SARSnCoV* has been later named *SARS-CoV-2* – but are not synonyms of Covid-19. Likewise, it is not clear how *Coordinate* terms relate to *Covid-19* based on paradigmatic relations or external associations.

*COVID-19* (7)

[...]

1) (*pathology*) A disease caused by a coronavirus discovered in 2019, in a zoonotic pandemic starting in Wuhan, Hubei, China.

2) (*virology, metonymically*) Severe acute respiratory syndrome-related coronavirus 2; the virus which causes the disease.

Synonyms

- (virus): SARS-CoV-2
- (virus): 2019-nCoV

Coordinate terms

(*disease*):

- MERS
- SARS

(*virus*):

- MERS-CoV
- SARS-CoV

(EN-Wik: *COVID-19*)

Altogether, lay users find basic answers to their questions mainly on CoG. For semantico-encyclopaedic information and technical detail, they can look up FrOR content, which returns full and partial entries like (8).

*coronavirus* (8)

any of a group of RNA animal viruses [K] consisting of enveloped particles 80-120 nm long, with helical nucleocapsids [FBT]. They contain the largest known viral RNA genomes (17-31 kb) and cause devastating epizootics (of respiratory or enteric disease) [FBT/M] in livestock and poultry [Bez]. Human [Bez] coronaviruses cause upper respiratory infections and severe acute syndrome (SARS) [Äqu] [F]. [sem-enzy/FE] See MAIN PROTEASE. [Verw]

(*Oxford Dictionary of Biochemistry and Molecular Biology*, 2006, 2 ed.; DBMB: *Coronavirus*)

[Free content; Full entry; Length: 60 words; Flesch Kincaid Grade Level: 12.2)

## 5. Conclusions

This chapter has offered a review of the coverage of terms related to Covid-19 in English language free institutional Internet glossaries that are available on the websites of the UK Government and Parliament – i.e. on credible and authoritative platforms that are in various ways intended to serve as seats for asymmetrical transfer and mediation of knowledge about their operations and services: *Coronavirus (Covid-19) definitions* (CoD) is the online interactive glossary published by the Office of National Statistics (ONS); the *COVID-19 glossary* (CoG) is published by the Parliamentary Office of Science and Technology (POST). The written digital text in the glossary is based on research and statistics carried out by experts working for the government and parliament at the Office of National Statistics and the Parliamentary Office for Science and Technology.

Cross-verification of wordlists in CoD and CoG as well as of lexicographical treatment in selected dictionary entries was carried out vis-à-vis free and unlocked content from the Oxford Reference (OR) platform and the English Wiktionary (EN-Wik), in connection with their purported functions and relevant extra-lexicographical social situations. To this purpose, we integrated somewhat liberally insights from the Function Theory of Lexicography (Bergenholtz & Tarp, 1995), and Wiegand's (1977, 1992, 2015) Actional-Semantic Theory of Dictionary Form.

The analysis demonstrates that the combined wordlists of CoD and CoG provide ample coverage not only of new terms such as *Covid-19* as well as of recent terms that have not been recorded in OR yet. More specifically, CoD and CoG provide access to one-word and multi-word units that constitute reductions of longer strings in subject (sub)fields, e.g., *Adverse event* (*Adverse health event*), *Antibody therapy* (*Antibody-directed drug therapy*); *Antiviral* (*Antiviral drug*). Also included in the glossaries are: head-modifier constructs with head and modifier, which are given as separate lemmas in OR, e.g., *Active component* (*Biologically active* and *Component*); lemmas that are part of general vocabulary (*Antibiotics*, *Anti-inflammatory drugs*); extant terms that have become to be used especially frequently (*Herd immunity*); terms that were borrowed between specialist domains (*Social distancing*, *Shielding*). Additionally, we could observe ample coverage of names – not only names of antiviral medicines eventually authorized for the treatment of Covid-19 (*Remdesivir*), but also names for national groups (*SAGE*), companies (*IVQUIA*, *ZOE*), committees, institutes and organizations (*NICE*), agencies (*Public Health England*, *PHE*) and departments (*DHSC*) involved in the Covid-19 response, in public-health and medicine regulations, decision-making and scientific advice in response to COVID-19.

Overall, Coronavirus (COVID-19) Definitions and the COVID-19 Glossary depart from professional lexicographical practice in a number of ways (e.g., in relation to non-natural condensation and mediostuctural cross-referencing). However, we hope to have minimally demonstrated that they offer thin though not incorrect content. In fact, they provide basic answers to the potential questions of lay-users – which is in line with the government's social responsibility to promote health, prevent disease and protect health.

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## Notes

Note 1. Retrieved December 1, 2023, from <https://www.ons.gov.uk/visualisations/dvc988/line/index.html>

Note 2. Retrieved December 1, 2023, from <https://www.ons.gov.uk/aboutus/whatwedo>

Note 3. Retrieved December 1, 2023, from <https://www.ons.gov.uk/aboutus/transparencyandgovernance/covid19infectionsurveillancedigitalcisdadvisoryboard>

Note 4. Retrieved December 1, 2023, from <https://www.gov.uk>

Note 5. Retrieved December 1, 2023, from <https://post.parliament.uk/covid-19-glossary/>

Note 6. Retrieved December 1, 2023, from <https://www.ons.gov.uk/aboutus/transparencyandgovernance/freedomofinformationfoi>

Note 7. Retrieved December 1, 2023, from <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases>

Note 8. Retrieved December 1, 2023, from <https://post.parliament.uk/tag/covid-19/>

Note 9. Retrieved December 1, 2023, from <https://www.oxfordreference.com>

Note 10. Retrieved December 1, 2023, from <http://en.wiktionary.org/wiki/wiktionary:Welcome%2Cnewcomer>

Note 11. Retrieved December 1, 2023, from [https://en.wiktionary.org/wiki/Wiktionary:Main\\_Page](https://en.wiktionary.org/wiki/Wiktionary:Main_Page)

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