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A Systematic Review to Explore the Economic Impact of Pandemics on Public Health Outcomes

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A systematic review to explore the economic impact of pandemics on public health outcomes

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Review question

What is the economic impact of pandemics on public health outcomes?

Searches

Web of Science, PubMed, PsycINFO, CINAHL, the Cochrane Library, ScienceDirect, and Global Health will be searched.

All relevant peer-reviewed literature from the last 40 years (1981-2021) will be included in the review. This is to take account of the HIV/AIDS pandemic which was declared in June 1981).

Additional search strategy information can be found in the attached PDF document (link provided below).

Search strategy

https://www.crd.york.ac.uk/PROSPEROFILES/253625_STRATEGY_20210526.pdf

Types of study to be included

Inclusion criteria:

The literature included in this review will include peer-review studies examining pandemics and the effects public health outcomes.

All relevant peer-reviewed literature from the last 40 years (1981-2021) will be included in the review. This is to take account of the HIV/AIDS pandemic which was declared in June 1981).

Exclusion criteria:

The exclusion criteria is any literature not focussed on pandemics or public health outcomes.

Condition or domain being studied

The economic effects on public health outcomes, either during or post pandemic.

Participants/population [1 change]

All relevant peer-reviewed literature that take account of the economic effects on public health outcomes, either during or post pandemic. Literature will be included will be from the last 40 years (1981-2021) this is to take account of the HIV/AIDS pandemic which was declared in June 1981). Articles included will be published in English with a full-text availability. All study designs will be included; observational, experimental, qualitative, quantitative or mixed.

Intervention(s), exposure(s) [1 change]

The economic impact of the pandemic's such as COVID 19 has on public health outcomes

Comparator(s)/control [1 change]

The economic effects of public health outcomes in non-pandemic circumstances

Main outcome(s)

To understand the effects of the pandemic on public health outcomes.

To determine the economic effects of the pandemic on public health outcomes.

To define the key contributors to change to public health outcomes as a result of a pandemic.

Measures of effect

Changes in population health outcomes.

Changes in economic investment in health care services effecting public health outcomes.

Additional outcome(s)

None.

Data extraction (selection and coding)

Following searches using PICO terms (Population, Intervention, Comparison, Outcomes) into Mendeley, the titles of identified articles will be matched against inclusion and exclusion criteria.

Those that meet the criteria will have their abstracts matched against the criteria.

Articles with abstracts matching the criteria will have their full articles retrieved. Articles that do not meet the inclusion criteria will be hand sifted for other relevant articles, and their title, abstracts and full texts compared against the inclusion and exclusion criteria. The number of articles that do not meet the inclusion criteria will be recorded in a PRISMA diagram, as will the reasons for their exclusion.

The titles, abstracts and full texts will be independently reviewed and compared by two different researchers (FC, ML). Where the researchers disagree whether to include or exclude articles, a third researcher (LHS) will be asked to resolve these cases.

The data extracted from the selected articles will be recorded in an Excel table; the rows will represent the articles, and the columns will represent the data fields to be extracted. The data fields will form two main categories: those that provide descriptive data on the articles and those that speak to the validity of the data (see section on risk of bias).

Categories providing descriptive data will include: author(s); title of article; data article published; publication; country; type of participants (age, sex, gender, ethnicity, rurality, socio-economic status, occupation, health status); types of intervention; types of comparison; types of outcome measures; type of study (RCT, QCT, etc.).

Risk of bias (quality) assessment [1 change]

Two independent reviewers will be involved in the methodological quality assessment following the selection of relevant studies for inclusion. Studies selected for inclusion in the systematic review will be assessed for quality using the GRADE (Grading of Recommendations, Assessment, Development and Evaluations) Framework. In the event of any disagreements will be resolved through discussions with a third reviewer.

Strategy for data synthesis

Following the initial synthesis, a matrix of evidence bringing together all the evidence will be constructed (see Harden, 2010 and Oliver, Harden, & and Rees, 2005), and an overarching narrative synthesis will be conducted across the streams of evidence to form a structured narrative of results.

The data analysis for the different types of studies will be conducted separately. For intervention studies, the clinical and methodological diversity within the studies will be described.

If there are sufficiently homogeneous studies available in terms of participants, intervention and outcomes to provide meaningful summaries.

Statistical significance will be included where reported.

The design and main findings of each relevant report will also be described in a narrative summary. Grey literature, including contemporary local government/agencies and charity reports, will also be included in the

review to limit publication bias and ensure that all relevant literature is located, but will be handled separately in terms of inclusion and exclusion criteria, the student and supervisors deciding how to handle the evidence once it has been retrieved.

The thematic analysis will be informed by the framework approach used for the analysis of primary qualitative data (Ritchie & Spencer, 1994).

Analysis of subgroups or subsets

Subgroup analyses will be conducted, if considered appropriate, based on the literature retrieved.

Contact details for further information

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Organisational affiliation of the review

Bangor University
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Review team members and their organisational affiliations

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Dr Mary Lynch. Bangor University
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Type and method of review

Epidemiologic, Systematic review

Anticipated or actual start date

01 June 2021

Anticipated completion date

31 December 2021

Funding sources/sponsors

Private funding

Conflicts of interest

None known

Language

English

Country

Wales

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Communicable Diseases; COVID-19; Delivery of Health Care; Economics; Humans; Pandemics; Physical Distancing; Public Health; SARS-CoV-2

Date of registration in PROSPERO

07 June 2021

Date of first submission

26 May 2021

Stage of review at time of this submission

Stage	Started	Completed
Preliminary searches	Yes	No
Piloting of the study selection process	No	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

The record owner confirms that the information they have supplied for this submission is accurate and complete and they understand that deliberate provision of inaccurate information or omission of data may be construed as scientific misconduct.

The record owner confirms that they will update the status of the review when it is completed and will add publication details in due course.

Versions

07 June 2021

PROSPERO

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