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Community engagement to support COVID-19 vaccine uptake: a living systematic review protocol

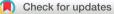Brynne Gilmore ,[1] Nina Gerlach ,[1] Claudia Abreu Lopes,[2] Alpha A Diallo,[3,4] Sanghita Bhattacharyya,[5,6] Vergil de Claro ,[7,8] Rawlance Ndejjo ,[9] Elizabeth Nyamupachitu Mago ,[10] Adalbert Tchetchia [6,11]

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For numbered affiliations see end of article.

Correspondence to
Dr Brynne Gilmore;
brynne.gilmore@ucd.ie

ABSTRACT

Introduction Widespread vaccination against COVID-19 is one of the most effective ways to control, and ideally, end the global COVID-19 pandemic. Vaccine hesitancy and vaccine rates vary widely across countries and populations and are influenced by complex sociocultural, political, economic and psychological factors. Community engagement is an integral strategy within immunisation campaigns and has been shown to improve vaccine acceptance. As evidence on community engagement to support COVID-19 vaccine uptake is emerging and constantly changing, research that lessens the knowledge-to-practice gap by providing regular and up-to-date evidence on current best-practice is essential.

Methods and analysis A living systematic review will be conducted which includes an initial systematic review and bimonthly review updates. Searching and screening for the review and subsequent updates will be done in four streams: a systematic search of six databases, grey literature review, preprint review and citizen sourcing. The screening will be done by a minimum of two reviewers at title/abstract and full-text in Covidence, a systematic review management software. Data will be extracted across predefined fields in an excel spreadsheet that includes information about article characteristics, context and population, community engagement approaches, and outcomes. Synthesis will occur using the convergent integrated approach. We will explore the potential to quantitatively synthesise primary outcomes depending on heterogeneity of the studies.

Ethics and dissemination The initial review and subsequent bimonthly searches and their results will be disseminated transparently via open-access methods. Quarterly briefs will be shared on the reviews' social media platforms and across other interested networks and repositories. A dedicated web link will be created on the Community Health-Community of Practice site for sharing findings and obtaining feedback. A mailing list will be developed and interested parties can subscribe for updates.

PROSPERO registration number CRD42022301996.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The living systematic review will systematically assess the literature to provide a comprehensive understanding of how community engagement can be used to support COVID-19 vaccine uptake.

⇒ It will allow for bimonthly additions of new evidence and transparent and timely dissemination of review findings and updates on the important topic of community engagement for COVID-19. Policy-makers, implementers and researchers will be able to use this review to make evidence-based decisions from the most recent available data.

⇒ There is no specific systematic review software that supports monthly iterative searching. To effectively manage the data, all searches and their results will be saved and catalogued prior to uploading them into Covidence.

⇒ The conceptualisations of 'community engagement' will likely vary across settings. To reduce the influence of this potential challenge, the search terms aim to accommodate the many permutations of the term, and the inclusion criteria will allow for flexibility and discretion.

INTRODUCTION
COVID-19 vaccine uptake and hesitancy
Widespread vaccination against COVID-19 is one of the most effective ways to control and ideally end the global COVID-19 pandemic. Even when vaccine supply is available and consistent, differences in rates of vaccination uptake can be observed across countries and subpopulations. For instance, a recent systematic review that assessed COVID-19 vaccine acceptance rates found the highest acceptability in Ecuador, Malaysia and Indonesia at 97%, 94% and 93%, respectively.[1] Among the general population, Kuwait indicated the lowest acceptance rate at 24%, followed by Jordan (28%) and Italy (54%).[1] The updated version of the same review found that in East and Southern Africa, the highest COVID-19 vaccine acceptance rate was in Ethiopia (92%) and the lowest in Zimbabwe (50%). In West/Central Africa, Niger (93%) had the highest rate and Cameroon (15%) the lowest.[2] However, results across countries are

not directly comparable as different survey methods are used.

Vaccine hesitancy is defined as the 'delay in acceptance or refusal of vaccination despite the availability of vaccination services'.[3] This term refers to a continuum and encompasses a heterogeneous group of individuals, ranging from those that clearly accept all vaccines to those who undoubtedly decline all. Vaccine hesitancy is a complex phenomenon, as it is underpinned by a mix of economic, psychological, sociocultural and political factors.[4] The WHO's Strategic Advisory Group of Experts on Immunisation (SAGE) identified three key reasons for vaccine hesitancy: confidence, convenience and complacency. Confidence refers to the trust that a vaccine is safe and effective, based on trust in the health system and in the motivations of policy-makers to deliver the vaccine. Convenience is defined by vaccine affordability, availability, geographical accessibility, and language and health literacy to understand the purpose of vaccination. Complacency refers to the perception that the disease risk is low and that receiving the vaccine is not needed.[3]

Specific reasons related to COVID-19 vaccine hesitancy cited in the literature include perceptions of vaccine efficacy, effectiveness, safety, worries about side effects, confidence in and preference for domestically made vaccines, personal political values, conspiracy theories and antivaccination rumours and misinformation from social media platforms.[5][6] In targeted groups like healthcare workers or minorities, additional factors include trusting the immune system to combat the virus, insufficient knowledge about vaccines and politics surrounding vaccine development processes.[7][8] Socioeconomic characteristics, perceived risk and convenience in obtaining the vaccines have been reported as reasons specific to minorities.[9] Vaccine hesitancy is exacerbated by a lack of health literacy and also misinformation from social media and other information channels.[10][11] During the pandemic, the rapid increase in the volume of information created an 'infodemic crisis'— which refers to an exponential increase in the volume of information associated with a global issue, including misinformation and disinformation.[12]

Vaccine hesitancy varies across sociodemographic groups and social stratifiers such as gender, age, race and education level.[9][13] Despite mixed evidence, some research has shown that COVID-19 vaccine acceptance varies across ethnic groups.[14] In the UK, 4 in 10 adults of Black or Black British heritage are COVID-19 vaccine-hesitant, compared with 1 in 10 White British adults.[15] Being a woman is associated with a greater hesitancy towards COVID-19 vaccines.[16][17] However, a systematic review commissioned by SAGE found that education and socio-economic status did not affect vaccine uptake in the UK. A higher level of education could be linked to both an increased, as well as a decreased acceptance.[18]

Community engagement for vaccine uptake in COVID-19

Community engagement has been part of global recommendations and guidelines on the response to the COVID-19 pandemic. However, its implementation has not always been effective,[19] even though lessons learnt from previous vaccination programmes show that community engagement is an effective and essential tool.[20] In South Asia, for example, community engagement efforts in Ebola and Polio vaccines were used consistently and successfully.[21] A recent review on community engagement for the prevention and control of infectious diseases[19] noted how community engagement has been used to support vaccine uptake. The authors recommend using such efforts for COVID-19. Community engagement can be used as a community entry plan, for codesigning vaccination strategies and messaging, for disseminating timely information on vaccine and immunisation strategies, and for building trust and addressing misinformation.[22]

SAGE identifies enabling environments and drivers for COVID-19 vaccine acceptance and uptake. Among those, social norms conducive to vaccination can be created and reinforced in groups, by the community, religious leaders and civil society organisations.[23] This implies that communities lead on issues that affect them to use vaccination services and build resilience.[24] A publication by the WHO and the UNICEF points out the specific roles of community health workers in COVID-19 vaccination to support buy-in and uptake of vaccination from communities and individuals.[25]

Evidence on community engagement for COVID-19 vaccine uptake is emerging.[26] For example, it has been successfully used to increase the participation of Black, Indigenous and People of Colours in COVID-19 clinical trials in the USA, and to increase vaccine compliance among Arab and ultraorthodox Jewish populations in Israel.[27][28] Good examples of citizen engagement from Malaysia involve community leaders reaching out to the indigenous population as well as United Nations High Commissioner for Refugees efforts to reach undocumented migrant workers and refugees.[29][30] UNICEF established the U-report information chatbot to support COVID-19 risk communication and community engagement in 52 countries among the youth and communities.[31] In Sindh province in Pakistan, 13 000 female-led teams of health workers went from door-to-door to offer vaccines to 25% of the population who had not received any dose, mainly traditional, less literate women.[32]

Evaluation of the COVID-19 vaccination roll-out has shown that community engagement emerged from measures to mitigate major challenges threatening the success of vaccination in Africa.[33] Given the newly developed vaccines and their increase in availability, the emerging COVID-19 variants, the need for boosters and the urgency to end the pandemic, the relevance of community engagement remains critical. Thus, there is an urgent need for evidence to inform current efforts. However, there is a dearth of evidence on how community engagement can be used to support vaccine uptake.[34] This review aims to collate the emerging and evolving evidence base on community engagement to support COVID-19 vaccine uptake.

METHODOLOGY
A living systematic review

A living systematic review (LSR) is a systematic review that is continually updated according to an explicit a priori schedule.[35] It is not a review methodology in itself, but an approach to updating reviews.[35] Relevant new evidence for the review is incorporated as it arises and supports the continual and active monitoring of evidence.[36] As such, an LSR aims to provide readers with a single source to review up-to-date, high-quality evidence on a specific topic.[37] LSRs are ideal for situations when the field and evidence are rapidly developing, new evidence emerging[38] and for high-priority topics.[39] The importance of living evidence has been outlined and advocated for within COVID-19 to support the rapidly evolving evidence-based approach to address the 'knowledge to practice' gap.[40]

Undertaking an LSRs is consistent with other systematic review approaches, with key features of LSRs including specification of how frequently new evidence is searched for when evidence is incorporated into the review,[36] and having online-only evidence summaries that are frequently updated.[41]

LSRs have the potential to reduce workload by working off existing efforts, streamlining the research approach and avoiding research duplication.[37] Challenges to conducting LSRs include human resource commitment,[37] lack of methodological tools, such as data management programmes that are tailored to LSRs[41] and little to no guidance for reporting LSRs.[39 42] Recommendations for the conduct of LSRs include exploring the use of 'citizen science', participation such as crowdsourcing,[41] and ensuring transparent reporting of review methodologies and updates.[39] In the context of rapidly emerging evidence, such as the case with COVID-19, it may be necessary to allow for reviewing and updating of methodological processes, including post-hoc changes to inclusion criteria, including preprints as sources, and a variety of searching methods.[39]

There are numerous ongoing LSRs on COVID-19 topics including clinical trial registration,[43] drug treatments,[44] characterising long COVID-19,[45] and mental health outcomes.[46] Given the global magnitude of COVID-19 and the rapidly changing evidence, an LSR is an appropriate methodology for high-priority topics. Community engagement activities, as outlined above, are strongly advocated for within COVID-19 responses, and have a strong potential to support vaccine acceptance and uptake. Understanding how community engagement is being used within vaccination programmes, and what impact it might have, is an essential learning exercise that can support the continued COVID-19 vaccination response, and have implications for future outbreaks transferrable to future pandemics. Given the evolving evidence base, an LSR is an appropriate methodology to support ongoing and up-to-date learning for implementation.

Review objectives and questions

This review aims to lessen the knowledge-to-practice gap for using community engagement to support vaccine uptake for COVID-19 by providing regular evidence on current best practice. To do so, it will:

1. Conduct a rigorous systematic review on community engagement for COVID-19 vaccine uptake.
2. Update the review on a bimonthly basis using set procedures.
3. Disseminate updated findings and recommendations on an open-access platform.

To this end, it will endeavour to answer the following research questions by conducting an LSR:

1. How is community engagement being used to support COVID-19 vaccine uptake and/or improve acceptance?
2. What are the characteristics of the community engagement processes and interventions?
3. What is the effect of this engagement on vaccine uptake and/or improved vaccine acceptance?
4. What implementation lessons for using community engagement for vaccine uptake can be learnt, and how do they apply to different population groups and settings?

Methods and tools

The protocol for this review is divided into two phases. First, the initial systematic review procedures, including searching, inclusion/exclusion criteria and data extraction will be conducted. Second, there will be updated searching procedures to make the review 'living'. The protocol has been registered with PROSPERO: CRD42022301996.

Step 1: initial review

An initial systematic review to address the aforementioned research questions will be conducted. Given the limited time frame for searching (from January 2020) and our research team size, we anticipate this systematic review will take approximately 2–3 months to complete. The intention will be to publish this review, with links to the open-access platform, where updates arising from the iterative bimonthly searching, and any revisions to the methodology, will be shared.

The initial search is anticipated to begin in mid-March 2022, following the methods below. If the LSR is not completed by the time the subsequent search update is due, results from this next search will also be incorporated into the initial review.

Inclusion and exclusion

Articles will be included if they detail community engagement for improving vaccine uptake and/or reducing hesitancy for individuals eligible for COVID-19 vaccines. Articles must provide insight into either how community engagement has been used to support vaccine uptake, the effectiveness of community engagement for vaccine uptake or both. Articles may report specifically on vaccine figures or provide insights into how community engagement can work based on primary evidence. For

Table 1 Inclusion and exclusion criteria

Topic	Inclusion	Exclusion
Population—vaccine eligible	Any individual, regardless of age, eligible for COVID-19 vaccines. Any government approved and supported COVID-19 vaccine: including initial dose and subsequent doses (booster etc.).	Individuals receiving vaccines as part of clinical trials.
Exposure—community engagement	Community engagement activity to support vaccine uptake and/or reduce hesitancy.	Not community engagement or community engagement focus not to increase vaccination acceptance or uptake.
	What is community engagement in this review: An approach that involves inclusion and participation of individuals, groups or structures within the parameter of a social boundary or catchment area ('the community') to influence a health outcome or behaviour, or to support community decision-making, planning, design, governance and delivery of service (modified definition from Barker et al[51]). What is not community engagement in this review: One-way communication efforts targeted at communities and/or individuals such as: media (radio, TV, social media) campaigns; information distribution including pamphlets, mail; and counselling by health worker, including door-to-door by CHWs, or consultation by healthcare provider.	
Outcomes	Articles will be included if they address the primary and/or secondary outcomes below: Primary outcomes**:** ► Vaccination uptake ► Vaccine acceptability/intention to vaccinate ► Vaccine hesitancy Secondary outcomes**:** ► Implementation considerations for using community engagement for vaccines ► Insights into how community engagement can support vaccines ► Knowledge and awareness about vaccines ► Attitudes towards COVID-19 vaccines	Reports community engagement used but not enough information to extract insight
Location	Worldwide	No restrictions
Timeframe	1 January 2020 to present Note: articles will be included if they have community engagement to support vaccines prior to vaccine administration if they meet any of the above criteria on outcomes	Pre 1 January 2020
Article Type	Primary research, both qualitative and quantitative and all study designs. Preprints and any grey literature that present primary research are included.	Not primary research, including opinions, commentaries and guidelines. Secondary research, including reviews.

CHWs, community health workers.

instance, a qualitative article may report on community members' experience with community engagement, but not highlight the percentage of uptake. Articles detailing community engagement efforts to support uptake prior to vaccine roll-out in the specific location will be included if they detail efforts to increase vaccine acceptability and/or reduce vaccine hesitancy. Searching will be done in English, however, no language restrictions will be applied. If it is possible, we will use the research team's language skills to review articles that are not in English language. In case that is not possible, we will use Deep L as a translator. In table 1, inclusion and exclusion criteria are outlined in more detail.

Searching for articles

To support a robust searching process on this rapidly developing topic, we will use four searching techniques: database search, preprint search, grey literature search, and citizen sourcing. The following databases will be searched: PubMed, CINAHL, Embase, Cochrane Library, LILACS and AJOL. Grey Literature will be searched via the WHO's COVID-19 Research Database. Given the rapidly evolving evidence base for COVID-19, research publication may lag behind research completion. As such, we will use both preprints and citizen sourcing to identify completed activities that have yet to be catalogued or are under review/revision. The health science preprint servers medRxiv and bioRxiv will be searched. Citizen sourcing will involve the creation of a Twitter and an email account. The Twitter account will be used to identify other relevant groups, disseminate the search topic and solicit resources, while the email account will be used to contact relevant listservs. All included articles' references will also be hand searched.

Table 2 Example search terms

Vaccine	
	Vaccin* OR Immun*
COVID-19	'Coronavir*' OR 'SARS-CoV-2' OR 'Severe acute respiratory syndrome coronavirus 2' OR 'COVID-19*'
Community engagement	"citizen participat*" OR "citizen engagement" OR "collaborative partnership" OR "community action" OR "community advisory" OR "community consultation" OR "community collaboration" OR "community engagement" OR "engag* communit*" OR "community involvement" OR "community mobili*" OR "community liaison" OR "community network*" OR "community participat*" OR "grassroots participat*" OR "grassroots network*" OR "public engagement" OR "public participation" OR "public representation" OR "participatory action" OR "participatory learning" OR "stakeholder engagement" OR "social engagement" OR "social accountability" OR "engag* citizen" OR "consult* communit*" OR "involv* communit*" OR "mobili* communit*" OR "engag* stakeholder"

Three search topics will be used with a combination of MESH and Boolean phrases for the database search: Vaccine, COVID-19 and community engagement. Topics will be combined by 'AND'. Table 2 provides example search terms.

Screening

After searching is complete, all returned references from the four techniques will be added to Covidence, a systematic review management software that can be used for screening references and data extraction (Melbourne, Australia, www.covidence.org). Duplicates will be identified and removed, followed by title/abstract screening by two reviewers independently. Any discrepancies will be handled by a third reviewer. Full-texts will be retrieved and screening will occur by two reviewers independently, with discrepancies again managed by a third reviewer. A third reviewer will also randomly review 20% of articles screened at full-text stage for additional interrater reliability. All reviewers will review the list of articles at this stage, and consensus among the research team on the final included articles will be sought.

Data extraction and synthesis

All included articles will undergo data extraction by using a predefined data extraction template. The template will be created in an excel spreadsheet. Data related to article characteristics, context and population, community engagement approaches, and outcomes will be extracted, as highlighted in table 3. Extraction will occur independently by two reviewers, with findings compared and consolidated. Any discrepancies in extraction will be discussed with a third reviewer.

The convergent integrated approach for mixed-methods systematic reviews[47] will be used to synthesise findings for research questions one and three. Using the data extraction tables will involve the key concepts of data transformation (ie, 'qualitising' any quantitative evidence to have comparable data). After qualitising, integration will occur following the principles of meta-aggregation.[48] Categories of similar findings from the studies will be identified and synthesised into the final review findings.

The initial categories will be identified by first becoming familiar with the data through repeated reading of the extraction tables, and second by having two authors independently propose categories. Authors will then discuss categories and share the proposed categories, with detailed examples. Consensus will be sought among the remainder of the research team. Once the categories are established, all data will be re-reviewed and coded to relevant categories. Synthesis of categories into overall study findings will follow a similar process.

Given the diversity of study and intervention approaches that can be taken within community engagement, it is unlikely that a meta-analysis will be possible for research question two. However, we will explore the potential to quantitatively synthesise any primary outcomes (vaccine uptake, vaccine acceptability, vaccine hesitancy) depending on the heterogeneity of the studies. This will involve using a descriptive statistical approach. If the data allows, the team will undertake a pooled analysis using risk-ratio/OR (dichotomous outcomes) or mean difference (continuous outcomes).

A summary table with key findings will be developed, which will seek to answer the research questions and highlight key considerations for community engagement for vaccine uptake, including relevant references.

Risk of bias

Given the article types that are included, the Mixed Methods Appraisal Tool (MMAT) will be used to critically appraise the quality of all included articles. The MMAT tool can be used to critically assess quantitative, qualitative and mixed-methods studies and scores for all included articles will be recorded in the data extraction sheet.

Step 2: updating the review
Searching

Bimonthly database, grey literature and preprint server searches will occur. Dates will be adjusted to reflect the last search date, thus only returning results published within the previous 2 months. Citizen searching will be an ongoing process. Any returned resources from the four searching sources will be uploaded into Covidence to

Table 3 Data extraction template

Characteristics context and population	Author/date	Location		Vaccine commentary*	Target population	Population characteristics†	MMAT
			Vaccine rates (precommunity engagement)	What did they do	When, where and how often	Community engagement reported outcomes	Equity considerations
Community engagement	Definition of community engagement	Community engagement description, justification	Who did community engagement: employment, training, payment				
	Implementation characteristics	Individual level: Inner setting: Outer setting:					
	Implementation Evaluation and barriers	Reach: Efficacy: Adoption: Implementation: Maintenance					

*Any reports on population/context vaccine views, including hesitancy, trust and confidence.
†Including residence location, gender, socioeconomic status, ethnicity, resident status, etc.

undergo screening at title/abstract and full-text phases by two research team members independently, consistent with the screening approach from the first step of the review. Discrepancies will be managed by a third reviewer.

It is anticipated that adjustments to the search terms and/or strategy may be required throughout the life cycle of this review. In these instances, changes will be clearly documented within the open-access protocol with a justification for the adjustment provided. If any changes to the search strategy reflect substantial variation from the initial protocol (as deemed by the research team) updated searching for those specific changes will be conducted.

Full prints of any preprints included in previous rounds of reviews will be sought. When a preprint is included, we will email the corresponding author to ask to be informed of any research or publication updates. If/when an included preprint becomes published, the previous preprint source will be updated to reflect the finalised article.

Data extraction and synthesis

After each bimonthly iterative search, articles will be screened, and data will be extracted from the included articles. Extraction will be completed by one reviewer, with a second reviewer reviewing the completed extraction. Synthesis will occur by reviewing new data against the preceding data and highlighting similarities and differences. A quorum of the research team (minimum four members) will meet virtually to discuss the findings in light of any newly arising data and will interpret what this means for the existing findings and recommendations. The key findings table will be updated accordingly.

It is anticipated that the organisation of the data extraction table and/or summary findings table will be revised as the review develops. The team anticipates that findings may be grouped along with geographical or contextual classifications, community engagement activity types, or target populations.

Step 3: sharing review findings and updates

The initial review, the subsequent bimonthly searches, and their results will be disseminated transparently via open-access methods. A 'read only' GoogleDoc will be created, with links available in the published review from step one. This will include the main resources: detailed protocol including any previous versions if revisions made, updated PRISMA (preferred reporting items for systematic reviews and meta-analyses) flow chart with accompanying details of search dates and returns, the 'living' data extraction sheet including references for all included articles, key findings table, key programme recommendations, key recommendations for future research, and a recent updates table where changes made over the last two iterations will be featured.

As well as a continual open-access space for updating results, it is envisioned that a yearly open-access peer-reviewed publication will be developed. However, if emerging data strongly changes findings from the

previous publication, we will endeavour to disseminate findings immediately. Quarterly briefs will be developed and shared on the reviews' media platforms and across other interested networks and repositories. A dedicated web link will be created in the Community Health-Community of Practice (CH-CP) site for sharing findings and also for obtaining feedback through webinars. CH-CP is an online network for community health practitioners, policy-makers, researchers, programme implementers and other actors involved in technical or policy development of community health programmes, to share experience and knowledge, supporting opportunities for learning and exchange.

Social media accounts for the review, including an email (community.engagement4vaccines@ucd.ie) and Twitter account (@CE4_vaccines) will support searching for evidence and dissemination efforts. A mailing list will be developed, with interested parties being able to subscribe to any updates. Updates will be shared on Twitter as they arise, with regular posts seeking information on any new literature, ongoing or completed research that has emerged. Whereas all review files on GoogleDocs will be 'read only', we will have an additional page for readers to provide any additional resources and comment on review findings and interpretation, aiming to increase both the searching process and the rigour and trustworthiness of the review.

Patient and public involvement

The research team is made up of academics, policy-makers and implementers internationally. No additional public involvement measures are included.

DISCUSSION

The development of COVID-19 vaccines has come with the need for public health guidance on how best to garner support for vaccination, including reducing hesitancy and improving vaccine literacy. Given the current vaccination rates across different contexts and the recognition that high vaccination coverage is required to reduce COVID-19 transmission and stop the emergence of new variants, the global community should implement strategies that will improve uptake. The importance of this topic increases with the need for booster vaccines and new immunisation protocols to accommodate variants. As such, asking the question of how community engagement can, and is, being used to support vaccine uptake is crucial to advance this field and support COVID-19 vaccination efforts worldwide.

LSRs have gained traction owing to the COVID-19 pandemic and allow for the updating of systematic reviews during regular intervals, which therefore can lessen the knowledge-to-practice gap and provide timely updates to evidence. The high-priority research needed on this topic and the rapidly changing evidence base support the conduct of an LSR.[40]

While caution on their conduct needs to be applied, especially on issues of data management and reporting, our review protocol has attempted to control for such potential limitations and learn from previous reviews. Specifically, we have included a preprint search and citizen searching, and will leverage social media via Twitter and GoogleDocs for the identification of articles and feedback from the global community on the process and findings.

There are, however, recognised potential limitations of this review. First, there are no specific systematic review software programmes that support monthly iterative searching. To effectively manage the data, all searches and their results will be saved and catalogued prior to uploading into Covidence. It is also anticipated that multiple data management systems may need to be used, and/or that flexibility across time will be required.

Second, conceptualisations of 'community engagement' will likely vary across settings. Such terminology is regular vernacular within some contexts, specifically in the implementation of health programmes within low-income and middle-income countries. Yet, even within this work, how community engagement is defined and what it encompasses varies and is often unclear.[49 50] Moreover, the use of 'community engagement' as a term may be limited in contexts that implement fewer activities at the community level, for instance in high-income contexts or contexts with well-developed health systems. To reduce the influence of this potential challenge, the search terms and inclusion criteria aim to accommodate the many permutations of the term, as well as allow for flexibility and discretion for inclusion.

Third, even though we will do citizen sourcing on social media, it is likely that we will only reach individuals who are active social media users, and might fail to engage experts on the topic, who do not regularly use Twitter or other social media channels.

What this review adds

This review adds to the global evidence base on public health interventions to control and prevent COVID-19. This protocol will allow for bimonthly additions of new evidence and transparent and timely dissemination of review findings and updates on the important topic of community engagement for COVID-19. Policy-makers, implementers and researchers will be able to use this review to make evidence-based decisions from the most recent available data.

Author affiliations
[1]UCD Centre for Interdisciplinary Research, Education and Innovation in Health Systems (UCD IRIS), School of Nursing, Midwifery and Health Systems, University College Dublin, Dublin, Ireland
[2]International Institute for Global Health United Nations University, Kuala Lumpur, Malaysia
[3]READ-GROUP, Conakry, Guinea
[4]Health Research Ethics Committee, Conakry, Guinea
[5]Public Health Foundation of India, Gurugram, Haryana, India
[6]Community Health–Community of Practice Collectivity, United Nations Children's Fund (UNICEF) Headquarters, New York City, New York, USA

[7]RTI International, Pasig City, Philippines
[8]Evidence for Health, Pasig City, Philippines
[9]Department of Disease Control and Environmental Health, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda
[10]Infectious Disease Equity and Engagement Unit, Minnesota Department of Health, Saint Paul, Minnesota, USA
[11]Expanded Programme on Immunization, Yaounde, Cameroon

Twitter Claudia Abreu Lopes @cabreulopes and Rawlance Ndejjo @Rawleng

Contributors BG, CAL, AAD, SB, VdC, RN, EM and AT were involved in a previous study on community engagement from which this current protocol took inspiration. BG conceived this study. NG, CAL, AAD, SB, VdC, RN, EM and AT contributed to the study design development. NG, BG CAL, AAD, SB, VdC, RN, EM and AT contributed equally to manuscript drafting and revisions.

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ORCID iDs
Brynne Gilmore http://orcid.org/0000-0003-4496-9254
Nina Gerlach http://orcid.org/0000-0002-5397-818X
Vergil de Claro http://orcid.org/0000-0002-5351-4764
Rawlance Ndejjo http://orcid.org/0000-0001-9263-557X
Elizabeth Nyamupachitu Mago http://orcid.org/0000-0002-1622-5146
Adalbert Tchetchia http://orcid.org/0000-0002-9940-8908

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