**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol***

| Section and topic | Item No | Checklist item |
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| **ADMINISTRATIVE INFORMATION** | | |
| Title: | 1 | Review of health research and data on racialised groups: Implications for addressing racism and racial disparities in public health practice and policies in Europe: a study protocol |
| Registration | 2 | Our systematic review protocol was registered on ZENODO on 7 October, 2022 and was last updated on 7 November, 2022 (DOI final version: 10.5281/zenodo.7298547). |
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| Contributions | 3 | MM is the guarantor. All three authors drafted the manuscript. CAA and TC developed the search strategy. All authors read, provided feedback and approved the final manuscript, and they contributed equally to the overall development of the review protocol. |
| Amendments | 4 | A first draft of the protocol was published on ZENODO on 7 October, 2022 and was last updated on 7 November, 2022 (DOI first draft: 10.5281/zenodo.7155891; DOI final version: 10.5281/zenodo.7298547). There are currently no further plans to amend the protocol, but in the unlikely event that this happens, we will incorporate the changes into the protocol and publish the updated version on ZENODO. |
| Support: | | |
| Sources | 5a | The Population Data Science Hub, Department of Public Health (Institute of Tropical Medicine, Antwerp, Belgium), which is funded by the Department of Economy, Science & Innovation of the Flemish Government. |
| Sponsor | 5b | The Population Data Science Hub |
| Role of sponsor or funder | 5c | The funder (Flemish Government, Science & Innovation) and the sponsor (The Population Data Science Hub) are not involved in any aspect of the project, such as the design of the project's protocol and analysis plan, the collection and analyses. In addition, the funder and the sponsor will have no input on the interpretation or publication of the study results. |

## INTRODUCTION

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| Rationale | 6 | While health disparities linked to the socio-politically constructed concepts of race and ethnicity have long been established, the COVID-19 pandemic has brought renewed attention to the issue. Although most people have been affected by the pandemic, an increasing body of international research shows that racialised minority groups have been disproportionately affected in terms of disease exposure, susceptibility to the disease, the severity of the disease and mortality rates. In addition to this, the measures taken to contain or mitigate the pandemic have had a particularly negative impact on the determinants of health and access to care for people within such groups. This has, in many cases, had negative consequences for their health statuses and health outcomes, which has ultimately further increased already existing health disparities among racialised minority groups (Katikireddi et al., 2021). Addressing this will require evidence-based decision-making and action on key structural and social determinants of health such as racism and racial discrimination, which are mediated by race, ethnicity, and related concepts. |
| | | Yet, historically, in many countries across Europe, data on racialised minority groups has been collected, used and deployed in inadequate, insufficient and/or inappropriate ways, and research on these groups has been conducted in ways which are ill-suited to the goal of tackling race and ethnicity-based inequalities and inequities. In order to understand emerging and existing health disparities among such groups, however, researchers and policymakers must obtain and use data to build evidence that informs decision-making and action on key structural and social determinants of health such as racism. |
| | | This 'systematic search and review' aims to contribute to closing this, with the aim of promoting a race-conscious approach to health research, strengthening the utilisation and deployment of data and research on racialised minority groups in Europe, and ultimately, improving equality and equity in health. |
| | | Concretely, the study will do so by reviewing and critically analysing the usage of the concepts of race, ethnicity and their related euphemisms and proxies in health-related research. It will also examine the collection, use and deployment of data and research on racialised minority groups in this area. The results of the review will then be used to develop guidance on how to use and deploy data and research on and with racialised groups. |
| Objectives | 7 | The objectives of the review are to:<br>1.     Examine how data on racialised minority groups is used (= conceived, collected, analysed, interpreted, reported) in health research<br>2.     Examine the ways in which this data is used to address racial health inequities |

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| | | 3. Critically analyse the way race, ethnicity and related euphemisms and proxies are conceptualised, operationalised, and used in health research |
| | | 4. Develop guidance on how to appropriately utilise and deploy data on racialised minority groups, how to undertake race-conscious research and how to effectively use the results to address racial health disparities |

**METHODS**

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| Eligibility criteria | 8 | Thematic scope: The review will take race and ethnicity in health research as a focus of analysis. It will expand to include related euphemisms and proxies such as migration, citizenship, nationality, religion, culture, language, postcodes, etc.<br><br>Geographical setting: Belgium, France and the Netherlands (and their overseas territories). These three countries in continental Europe have been selected for their geographical proximity, as well as their similarities and differences, one of which is the limited attention that is given to racism in health care and racial inequalities in health in both research and policy (Hamed et al., 2022; Lorant et Bhopal, 2011; Paradies et al., 2015).<br><br>Timeframe: The review will cover the period between 2018 and 2022 which will allow us to take into account data and research on racialised minority groups from before and during the COVID-19 pandemic (2 years before, 2 years during). This is because, as argued above, the COVID-19 pandemic has led to an increased focus and attention on the issue of health disparities among racialised groups.<br><br>Document type: Peer-reviewed articles, journal editorials, protocols and grey literature<br><br>Language of publication: English, French or Dutch |
| Information sources | 9 | The databases listed below will be used in this review. They were chosen for their large collections of both peer-reviewed and grey literature, which will ensure that we can capture the variety of published information on the subject matter.<br><br>● PubMed: https://pubmed.ncbi.nlm.nih.gov/<br>● Scopus: https://www.scopus.com/home.uri<br>● Web of Science: www.webofscience.com<br>● Cochrane Library: https://www.cochranelibrary.com/central/about-central |
| Search strategy | 10 | The search strategy was developed by creating a list of search terms that are relevant to the research questions and combining them as follows:<br><br>(race OR racial* OR ethnic* OR cultur* OR language OR linguistic OR religio* OR migra* OR immigrant OR foreign* OR "third country national" OR allochthonous OR residen* OR undocumented OR illegal OR irregular OR refugee OR asylum OR nationality OR citizen OR "non-citizen" OR minorit* OR gyps* OR roma OR traveller OR ancestry OR "family background" OR heritage OR origin OR neighborhood OR neigbourhood OR "postal code" OR postcode OR marginalised OR marginalized OR vulnerable OR precarious OR communit* OR "population group") |

AND
("health")
AND
(Belgium OR "Netherlands" OR France)

**Study records:**

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| Data management | 11a | Citations generated from the search strategy will be reviewed using the Covidence software which will be used to identify publications for inclusion in the review. These will then be uploaded and stored in a Zotero library. The data extraction of selected publications will be done using Covidence. |
| Selection process | 11b | The citations produced by the search strategy will be screened for relevance and for inclusion in the study. To be eligible, the article or report must have both health AND race, ethnicity, or related concepts as its subject matter. |
| | | The research will be done by a core team of three researchers, who will be supported periodically by three master students with relevant experience and knowledge. |
| | | In the first instance, two researchers, in consultation with the third researcher, will search the selected databases for relevant citations, using the developed search string. The results of this search procedure will then be uploaded into Covidence, a systematic review management software which automates some of the steps of the review process. |
| | | Next, Covidence will be used to identify and automatically remove duplicates, and this process will be verified by one researcher. Given that Covidence is limited in its ability to recognise duplicates, the selected references will be exported to Zotero by one researcher, who will then do an additional duplicate check. |
| | | After this, the title and abstract screening of the documents in Covidence will be done by three students, who are supported and supervised by one researcher. From this stage onwards, weekly discussions will be held to streamline and systematise the selection process as much as possible. Following this initial selection, the full texts of the selected documents will be obtained and checked meticulously against the review's inclusion and exclusion criteria. This full text screening will be done in Covidence by the three researchers and three students, with every document being checked at least twice to minimise bias and error. The process will be set and carried out in such a way as to ensure that each full text is screened by at least one of the three researchers from the core team. Conflicts will be discussed and resolved as a group, during the weekly meetings, and potential deviations from the review protocol will be documented and reported. |
| Data collection process | 11c | Once the screening process is finished, the data on the study characteristics and other relevant variables will be extracted by the three researchers and one student from the final collection of retained documents, in a systematic way. This will be done in Covidence and the extracted data will be stored in Excel. In order to minimise error, the team will use a standardised extraction sheet that has been designed collaboratively by the three researchers and the three students, with some input from the extended project group. |

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| Data items | 12 | Approximately 30 variables will be extracted from the publications that are included in the review. This will include information on the:<br>1.    Study characteristics<br>a.    Publication (title, year of publication, author(s) and their affiliation, journal, type of document)<br>2.    Variables of interest<br>a.    Concepts that are used for health research on racialised minority groups and how they are operationalised<br>b.    Research methodology and methods used<br>c.    The data used, and how this is collected, and applied<br>A full overview of the variables to be extracted can be found in the Data Extraction sheet (here: http://dx.doi.org/10.13140/RG.2.2.10178.86726). |
| Outcomes and prioritization | 13 | The primary outcome will be a list of concepts (related to race, ethnicity and their related euphemisms and proxies) that are used in health research on racialised minority groups. This list will also include – if provided – the definitions and justifications for such a use, and the ways these concepts are operationalised in research.<br><br>A secondary outcome will focus on the use of such concepts (context, research questions, research methodologies, results)<br><br>A third outcome will examine the recommendations, research gaps, and innovative approaches.<br><br>A fourth outcome will consist in the development of proposed guidelines for best practices in the use and deployment of data and research in racialised minority groups, with the aim of addressing health disparities.<br><br>The results of this review will be developed in a manuscript submitted to a scientific journal for publication. |
| Risk of bias in individual studies | 14 | As this is a critical qualitative review which does not focus on the outcomes of the individual studies, we do not perform an assessment of the risk of bias. |

| Data synthesis | 15a | Given the diversity of the type of publications that will be eligible and included in the review, and the focus on qualitative analysis, neither a quantitative meta-analysis nor a statistical synthesis will be carried out. Rather, we will provide a simple descriptive summary which focuses on itemising key information such as: |
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| | | ● information about the publication e.g. author affiliations, main journal, funders; |
| | | ● relevant information contained in the publication e.g. how often specific concepts are used, how many authors provided explanations for their use of such concepts; and |
| | | ● where necessary the characteristics of the study or research e.g. which populations are most or least studied, what health conditions nd healthcare areas are most/least studied |
| | | The results of the critical analysis will then be used to inform the development of proposed guidelines for best practices in the use and deployment of data and research in racialised minority groups, with the aim of addressing health disparities. |
| | | Quantitative synthesis will be done in tables and figures. |
| | 15b | N/A |
| | 15c | N/A |
| | 15d | In addition to the descriptive summary, a qualitative narrative synthesis of the data will be carried out , and the information will be presented in text and in tables. |
| | | This narrative analysis will critically explore and identify the: |
| | | 1. Concepts that are used for health research on racialised minority groups |
| | | 2. Types of data on race, ethnicity and related euphemisms and proxies that are used, and the arguments put forward to justify their use |
| | | Methodology and methods that are used for research on/with racialised minority groups, with a particular focus on recommendations, research gaps, innovative approaches, and methods |
| Meta-bias(es) | 16 | N/A |
| Confidence in cumulative evidence | 17 | N/A |

*From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*