

Ambulance service recognition of health inequalities and activities to reduce health inequalities: an evidence and gap map

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Background

- Emergency medical services (EMS) are often patients' first point of contact for urgent and emergency care needs
- Evidence from other areas of healthcare indicate certain groups in society may experience differences in health and healthcare provision, which are unfair, avoidable and not wholly attributable to clinical criteria (e.g. presenting complaint, severity) or organisational pressures (e.g. available resources, ability to make own way to the hospital). These are known as health inequalities (HIs) (NHS England, 2023)
- NHS England (2021) developed the Core20PLUS5 framework, which seeks to inform action to reduce HIs at both national and system level
- It is unknown how HIs impact the care provided by ambulance services, and how HIs are being addressed in line with the Core20PLUS5 framework

Methods

- An evidence and gap map methodology was chosen to identify gaps in knowledge and future research needs (Miake-Lye *et al.* 2016)
- English-language studies were included if they describe HIs within ambulance service care since 1st Jan 2010. Studies from low- or middle-income countries were excluded.
- Studies that described HIs were mapped to the World Health Organisation (WHO) framework of EMS care interventions: activation of EMS (call and triage); response performance (dispatch); and assessment, treatment, and transport to ED (including telephone and face-to-face responses).
- Studies that described a specific intervention to reduce HIs were mapped additionally against the UK AHP Public Health Strategic Framework

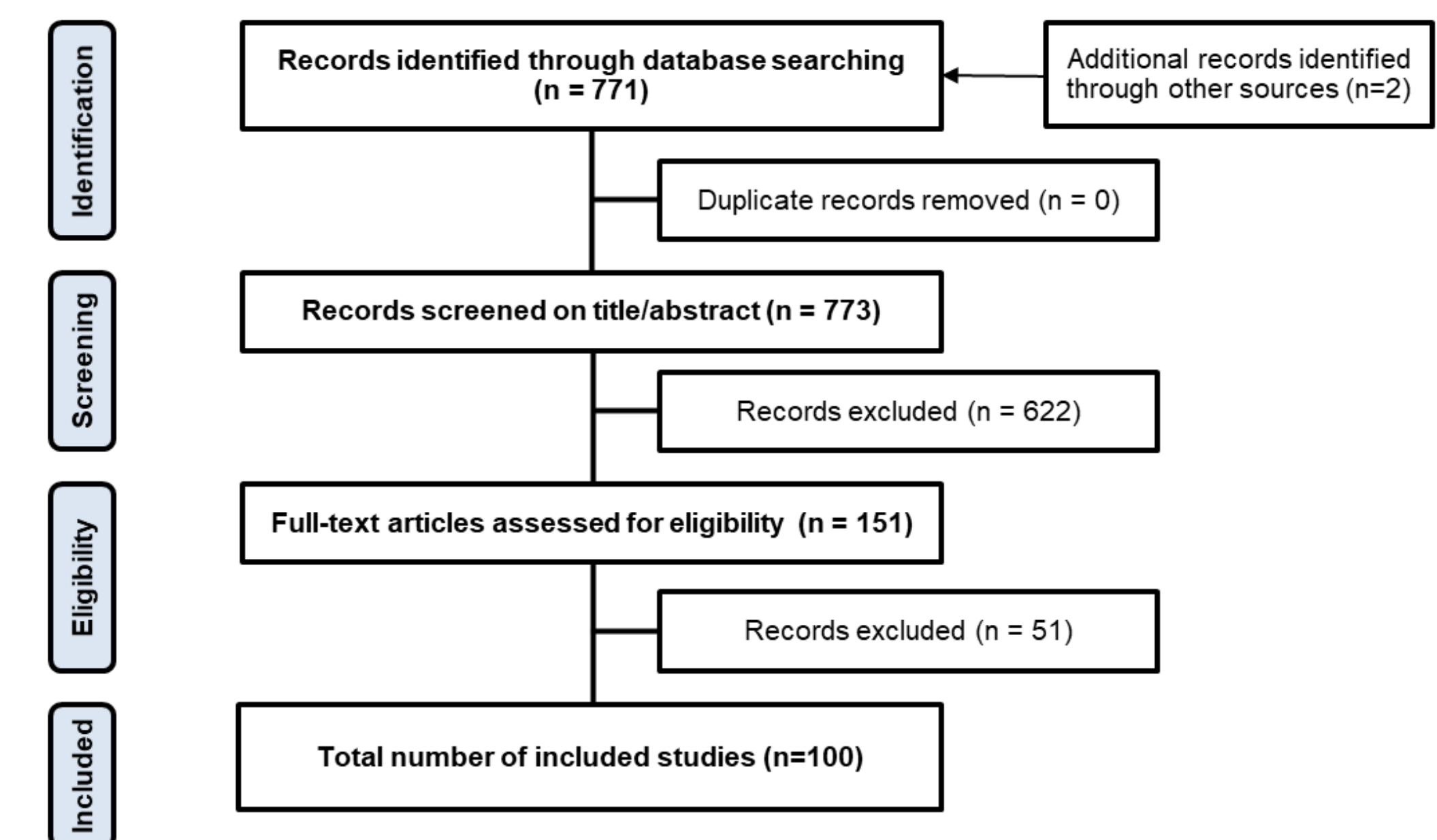


Figure 1. PRISMA Flow diagram

Current published evidence on EMS health inequalities is mostly located within PLUS populations, with deprived populations, inclusion health groups and NHSE specified disease-areas receiving much less attention from a research perspective

Few studies are published on EMS interventions to reduce health inequalities

Results

- Database searches identified 771 records; the authors included two additional records. Of these, 671 were excluded due to not fulfilling the inclusion criteria, and 100 studies were included in the evidence map (Fig 1)
- The included studies were from the United States (n=63), UK and Ireland (n=15), Australia (n=7), Canada (n=7), New Zealand (n=7) and Europe (n=1).
- The main clinical topic was out-of-hospital cardiac arrest (OHCA), with others focussing on chest pain, acute coronary syndrome, trauma and stroke presentations. Fewer studies involved paediatric patients, mental health, pregnancy and diabetes.
- EMS Accessibility, triage and utilisation** - 38 studies included, OHCA studies in the majority with deprivation being a factor in EMS call incidence for a variety of presentations
- Response performance** - 12 studies included, with notably longer response times in areas of high deprivation and rurality.
- Assessment, treatment and conveyance** – 50 studies included. Age, ethnic minority and female sex were strong indicators of different care provision.
- Five studies reported on activities aiming to reduce health inequalities within EMS
 - All studies focused on 'PLUS populations', such as limited English proficiency (n=2), ethnicity (n=2) and age (n=1). However, the study focusing on age also included smoking status, hypertension and cancer risk, key clinical areas within the CORE20PLUS5 framework.
 - Studies incorporated population healthcare (n=3), health protection (n=1) and health improvement (n=2) interventions

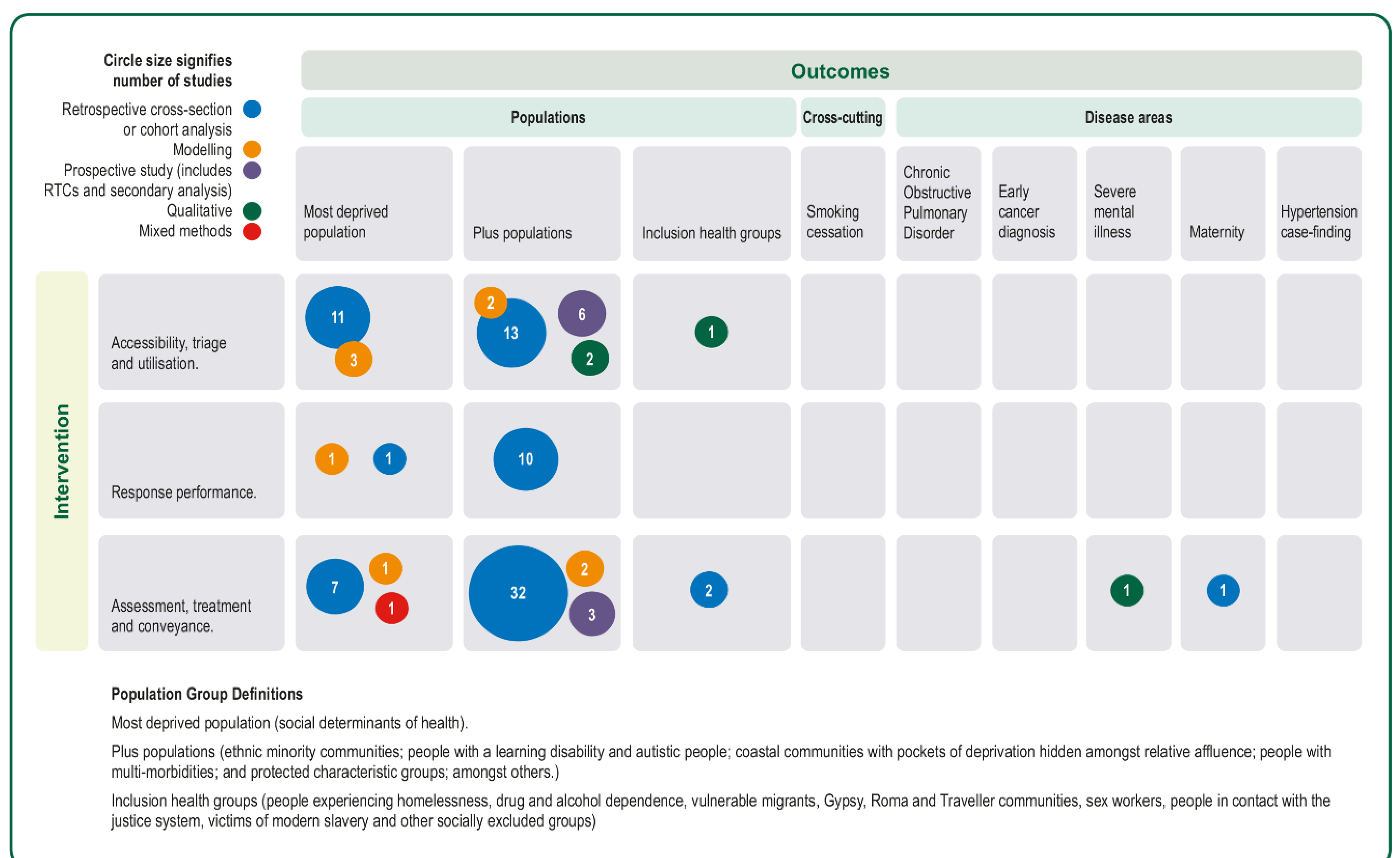


Figure 2. Evidence and gap map framework describing the availability of evidence for EMS care interventions and CORE20PLUS5 outcomes, with the circle size signifying the number of studies by study type – data provided to AACE and figure reproduced with permission

Policy recommendations

- CORE20PLUS5 framework populations do not appear to be represented particularly well in the published literature, confirming concerns that the framework may not be entirely applicable to the ambulance service setting
- Rurality may be an important novel HI for EMS consideration in response performance.
- There is limited evidence of activities that aim to reduce health inequalities within ambulance service care, and further evaluation of the implementation of interventions should be prioritised.

References

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