PICOS component	Description
Population	 Adults (≥ 18 years old) ETHOS criteria for homelessness* ≥1 non-communicable disease (NCD) or communicable disease requiring long-term care (LT-CD)
Intervention	 Be delivered, in whole or in part, by a healthcare professional** Address the management of one or more NCD or LT-CD
Comparator	'Usual care' or alternative intervention Contemporaneous comparator only (exclude historical controls)
Outcomes	Primary outcome: Unscheduled use of healthcare services, including: • Emergency department attendance • Hospital admission • Use of out-of-hours services • Ambulance call-outs Secondary outcomes: • Physical health outcomes (e.g. mortality, disease specific markers of control) • Quality of life • Patient engagement (e.g. attendance at planned healthcare services, medication adherence) • Behavioural or cognitive (e.g. self-efficacy, knowledge) changes related to health • Emotional wellbeing, anxiety, and depression • Satisfaction with care • Cost effectiveness • Changes to treatment or medication
Settings	Community: interventions delivered solely in non-community settings (e.g. hospitals,) will be excluded
Study design	RCTs (including Cluster RCTs) Non-randomised controlled trials/ quasi-experimental studies CBAs
Databases	Medline, EMBASE, Scopus, PsycINFO, CINAHL, Assia, Cochrane Central Register of Controlled Trials (CENTRAL)
Manual searching	Reference lists of all eligible studies. Journal of the Poor and Underserved.
Grey literature	Websites of non-governmental organisations that aim to assist homeless persons: Department of Health England webpage; OpenGrey; WorldCat; Grey Literature Report; OAlster and WorldWideScience for reports and theses; British library and Zetoc; Research Councils UK information on publicly funded research; Repositories including Grey Guide and Open DOAR. Other related sites including UK health forum, St. Michael's hospital, and Grey Net.
Forward citations	Performed for all included studies (using Web of Science).
Contact with study authors	Where data pertaining to homeless participants were not presented separately, we attempted to contact study authors to request these data.
Restrictions	English language only
Dates	Database: Jan 1966 (or inception) to Oct 2016. Forward citation search completed Mar 2017

- * Studies including a broader population but including homeless participants will be included only if data pertaining to homeless participants are considered separately.
- ** any professional trained to provide any form of health care, but excluding social workers and professionals without a health-related training, including, but not limited to, physicians, nurses, dentists, pharmacists, paramedics, mental health professionals, allied health professionals (e.g. physiotherapists, dieticians, clinical psychologists etc.), midwives.

(1a) Hanlon P, Yeoman L, Esiovwa R, Gibson L, Williamson AE, Mair FS, Lowrie R. Interventions by healthcare professionals to improve management of physical long-term conditions in adults who are homeless: a systematic review protocol. BMJ Open. 2017 Aug 21;7(8):e016756. doi: 10.1136/bmjopen-2017-016756.

Medline Search Strategy*

- 1. Exp. Homeless Persons/
- 2. Home?less.mp
- 3. Roof?less.mp
- 4. House?less.mp
- 5. (home* adj2 lack).mp
- 6. (home* adj2 no).mp
- 7. (without adj2. Home*).mp
- 8. (lack adj2 hous*).mp
- 9. (no adj2 hous*).mp
- 10. (without adj2. hous*).mp
- 11. (lack adj2 roof*).mp
- 12. (no adj2 roof*).mp
- 13. (without adj2 roof*).mp
- 14. (inadequate* adj3 hous*).mp
- 15. (insecur* adj3 hous*).mp
- 16. (insecur* adj2 tenan*).mp
- 17. (unfit* adj2 hous*).mp
- 18. ((transition* or insecure or inadequate or substandard or substandard or sheltered or emergency or intermittent or transient or marginal* or problem*) adj (hous* or home* or accommodat*)).mp
- 19. (sheltered or unsheltered or shelters).mp
- 20. Vagran*.mp
- 21. Destitute.mp
- 22. Skid row.mp
- 23. (sleep* adj2 rough).mp
- 24. ("street person" or "street people"). Mp
- 25. Exp "Delivery of Health Care"/
- 26. Exp Primary Health Care/
- 27. Exp Community Health Services/
- 28. Exp Chronic Disease
- 29. ((chronic or long term) adj2 (disease or condition*)).mp
- 30. Exp Patient Care Management/
- 31. Intervention*.mp
- 32. Exp Pragmatic Clinical Trial/ or exp Clinical Trial/ or exp Randomized Controlled Trial/ or exp Controlled Clinical Trial/
- 33. Trial*.mp
- 34. Control*.mp
- 35. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24
- 36. 25 or 26 or 27 or 28 or 29 or 30

37. 31 or 32 or 33 or 34

38. 35 and 36 and 37

*Adapted for other databases