

**Article title:** Characteristics of Medical Deserts and Approaches to Mitigate Their Health Workforce Issues: A Scoping Review of Empirical Studies in Western Countries

**Journal name:** International Journal of Health Policy and Management (IJHPM)

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**Citation:** Flinterman LE, González-González AI, Seils L, et al. Characteristics of medical deserts and approaches to mitigate their health workforce issues: a scoping review of empirical studies in Western countries. *Int J Health Policy Manag.* 2023;12:7454. doi:[10.34172/ijhpm.2023.7454](https://doi.org/10.34172/ijhpm.2023.7454)

**Supplementary file 2.** Search Strategies by Electronic Databases

- 06.05.2021

**Medline [medall] via Ovid**

1	Health Personnel/ OR (nurse-patient-ratio* OR ((health* OR dental* OR care* OR medical* OR hospital* OR nursing) ADJ3 (personnel* OR workforce* OR labor-force* OR labour-force* OR manpower* OR work-force* OR resource*)) OR ((nurs* OR physician) ADJ3 (shortage*))).ab,ti,kf.	
2	Rural Health/ OR Rural Health Services/ OR Rural Population/ OR (island* OR villager* OR ((rural* OR countryside* OR village*) ADJ3 (health* OR care* OR setting* OR area* OR population* OR communit* OR dweller* OR people* OR resident* OR societ* OR worker* OR nurs*)) OR medical-desert* OR ((underserv* OR remote* OR isolated OR mountain* OR far*) ADJ3 (area* OR neighborhood* OR neighbour* OR district* OR province*))).ab,ti,kf.	
3	(taxonomy OR taxonomic* OR indicator* OR definition* OR defining* OR classificat* OR index* OR indice* OR scalogram* OR Gini).ab,ti,kf.	
4	1 and 2 and 3	
5	(exp animal/) NOT (human/)	
6	4 not 5	
7	(news OR congres* OR abstract* OR book* OR chapter* OR dissertation abstract*).pt.	
8	6 not 7	665

## **Embase**

('health care personnel management'/exp OR (nurse-patient-ratio\* OR ((health\* OR dental\* OR care\* OR medical\* OR hospital\* OR nursing) NEAR/3 (personnel\* OR workforce\* OR labor-force\* OR labour-force\* OR manpower\* OR work-force\* OR resource\*))) OR ((nurs\* OR physician) NEAR/3 (shortage\*)):ab,ti,kw) **AND** ('rural health'/de OR 'rural health care'/exp OR 'rural population'/de OR (island\* OR villager\* OR ((rural\* OR countryside\* OR village\*) NEAR/3 (health\* OR care\* OR setting\* OR area\* OR population\* OR communit\* OR dweller\* OR people\* OR resident\* OR societ\* OR worker\* OR nurs\*))) OR medical-desert\* OR ((underserv\* OR remote\* OR isolated OR mountain\* OR far\*) NEAR/3 (area\* OR neighborhood\* OR neighbourhood\* OR district\* OR province\*)):ab,ti,kw) **AND** ('taxonomy'/de OR (taxonomy OR taxonomic\* OR indicator\* OR definition\* OR defining\* OR classificat\* OR index\* OR indice\* OR scalogram\* OR Gini):ab,ti,kw) NOT ((animal/exp OR animal\*:de OR nonhuman/de) NOT ('human'/exp)) NOT ([Conference Abstract]/lim)

## Web of Science

TS=((nurse-patient-ratio\* OR ((health\* OR dental\* OR care\* OR medical\* OR hospital\* OR nursing) NEAR/2 (personnel\* OR workforce\* OR labor-force\* OR labour-force\* OR manpower\* OR work-force\* OR resource\*)) OR ((nurs\* OR physician) NEAR/2 (shortage\*)))) AND ((island\* OR villager\* OR ((rural\* OR countryside\* OR village\*) NEAR/2 (health\* OR care\* OR setting\* OR area\* OR population\* OR communit\* OR dweller\* OR people\* OR resident\* OR societ\* OR worker\* OR nurs\*)) OR medical-desert\* OR ((underserv\* OR remote\* OR isolated OR mountain\* OR far\*) NEAR/2 (area\* OR neighborhood\* OR neighbourhoood\* OR district\* OR province\*)))) AND ((taxonomy OR taxonomic\* OR indicator\* OR definition\* OR defining\* OR classificat\* OR index\* OR indice\* OR scalogram\* OR Gini)) NOT ((animal\* OR rat OR rats OR mouse OR mice OR murine OR dog OR dogs OR canine OR cat OR cats OR feline OR rabbit OR cow OR cows OR bovine OR rodent\* OR sheep OR ovine OR pig OR swine OR porcine OR veterinar\* OR chick\* OR zebrafish\* OR baboon\* OR nonhuman\* OR primate\* OR cattle\* OR goose OR geese OR duck OR macaque\* OR avian\* OR bird\* OR fish\*) NOT (human\* OR patient\* OR women OR woman OR men OR man))) AND DT=(Article OR Review OR Letter OR Early Access)

**Cinahl – 269 refs**

(MH Personnel Management OR TI((nurse-patient-ratio\* OR ((health\* OR dental\* OR care\* OR medical\* OR hospital\* OR nursing) N2 (personnel\* OR workforce\* OR labor-force\* OR labour-force\* OR manpower\* OR work-force\* OR resource\*))) OR ((nurs\* OR physician) N2 (shortage\*)))) OR AB((nurse-patient-ratio\* OR ((health\* OR dental\* OR care\* OR medical\* OR hospital\* OR nursing) N2 (personnel\* OR workforce\* OR labor-force\* OR labour-force\* OR manpower\* OR work-force\* OR resource\*))) OR ((nurs\* OR physician) N2 (shortage\*)))) AND (MH Rural Health OR MH Rural Health Personnel OR MH Rural Health Services OR MH Rural Health Centers OR MH Hospitals, Rural+ OR MH Rural Population+ OR TI((island\* OR villager\* OR ((rural\* OR countryside\* OR village\*) N2 (health\* OR care\* OR setting\* OR area\* OR population\* OR communit\* OR dweller\* OR people\* OR resident\* OR societ\* OR worker\* OR nurs\*)) OR medical-desert\* OR ((underserv\* OR remote\* OR isolated OR mountain\* OR far\*) N2 (area\* OR neighborhood\* OR neighbour\* OR district\* OR province\*)))) OR AB((island\* OR villager\* OR ((rural\* OR countryside\* OR village\*) N2 (health\* OR care\* OR setting\* OR area\* OR population\* OR communit\* OR dweller\* OR people\* OR resident\* OR societ\* OR worker\* OR nurs\*)) OR medical-desert\* OR ((underserv\* OR remote\* OR isolated OR mountain\* OR far\*) N2 (area\* OR neighborhood\* OR neighbour\* OR district\* OR province\*)))) AND (TI((taxonomy OR taxonomic\* OR indicator\* OR definition\* OR defining\* OR classificat\* OR index\* OR indice\* OR scalogram\* OR Gini)) OR AB((taxonomy OR taxonomic\* OR indicator\* OR definition\* OR defining\* OR classificat\* OR index\* OR indice\* OR scalogram\* OR Gini)))

**Cochrane – 63 refs**

((nurse NEXT/1 patient-ratio\*) OR ((health\* OR dental\* OR care\* OR medical\* OR hospital\* OR nursing) NEAR/3 (personnel\* OR workforce\* OR (labor NEXT/1 force\*) OR (labour NEXT/1 force\*) OR manpower\* OR (work NEXT/1 force\*) OR resource\*)) OR ((nurs\* OR physician) NEAR/3 (shortage\*))) :ab,ti,kw) **AND** ((island\* OR villager\* OR ((rural\* OR countryside\* OR village\*) NEAR/3 (health\* OR care\* OR setting\* OR area\* OR population\* OR communit\* OR dweller\* OR people\* OR resident\* OR societ\* OR worker\* OR nurs\*)) OR (medical NEXT/1 desert\*) OR ((underserv\* OR remote\* OR isolated OR mountain\* OR far\*) NEAR/3 (area\* OR neighborhood\* OR neighbourhood\* OR district\* OR province\*))) :ab,ti,kw) **AND** ((taxonomy OR taxonomic\* OR indicator\* OR definition\* OR defining\* OR classificat\* OR index\* OR indice\* OR scalogram\* OR Gini) :ab,ti,kw)

**Google Scholar – 100 refs**

"health|care|medical

personnel|workforce|"labor\*force"|"labour\*force"|manpower|"work\*force"|resources"

"rural health|care|area"|"medical desert" taxonomy|taxonomies