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

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Supplementary file 5. Definitions of Medical Deserts

Definition	Main characteristics	Used in reference
Rural Remote and Metropolitan Area classification (RRMA) (332)	• Population per statistical local area • Distance to facilities	(166,167,172,174,177,184,202,214,216,217,222,232,246,250,252,308,318,333,334)
General Practice Rurality Index (GPRI) (335)	• Remoteness from an advanced referral centre • Remoteness from a basic referral centre • Population size • Number of general practitioners • Number of specialists • Presence of an acute care hospital	(203)
Accessibility Remoteness Index of Australia (ARIA) (336)	• Road distance to service centres	(223,277)
Australian Standard Geographical Classification- Remoteness area (ASGC-RA) (337)	• Road distance to service centres	(183,185,191–195,207,209,219,230,263,271,272,296,300,306,307,309,312,315,329)
Health Professional Shortage Areas (HPSA) (338)	• Population to provider ratio • Percent of population below 100% of the federal poverty level • Travel time to the nearest source of care outside the designation area	(253,283,339)
Modified Monash Model (MMM) (340)	• Based on ASGC/S-RA	(175,218,341)
Rural Urban Community Codes/Areas (RUCC/A) (342)	• Population size • Adjacent to a metropolitan area yes/no	(208,220,256,264,286)
Index of Relative Rurality (IRR) (343)	• Population size • Population density • Extent of urbanized area • Distance to nearest metropolitan area	(259)
Socio Economic Indexes For Areas (SEIFA) (344)	• Level of advantage/disadvantage • Economic resources • Education and occupation	(327)
Medically Underserved Area/Population MUA/P (338)	• Provider per 1000 population ratio • Percent of population at 100% of the federal poverty level • Percent of population age 65 and over • Infant mortality rate	(314)

Definition	Main characteristics	Used in reference
2 Step Floating Catchment Area (2SFCA) (345)	• Number of services at location • Distance to services • Number of residents at location • Health needs of the population • Population provider ratio • Mobility of the population	(187,346)
3 Step Floating Catchment Area (3SFCA)	• 2SFCA • Availability of other nearby medical sites	(311,324)
Rural Ranking Scale (RRS)	• Travelling time from surgery to major hospital • On call duty • On-call for major traumas • Travelling time to nearest GP colleague • Travelling time to most distant practice boundary • Travelling time to regular peripheral clinic	(160,170)
Typology of seven factors	• Geographic proximity to an urban centre • Access to health care resources • Size of community • Geographic location • Practice type • Number of years for which at least one physician was retained • Resources available to the community	(178)
Standard Metropolitan Statistical Area (SMSA)	• Population density of a county • Part of the county that has a shortage of manpower • % of the county population that is rural • Population of the county • Number of active physicians	(225)
Rural-Urban Density Typology (RUDT) (347)	• Population size • Adjacent to a large or small metropolitan area • Town in region	(196)
Rural and Remote Area (RARA) (348)	• Population size • Distance to metropolitan area	(163)
Urban influence codes (349)	• Population size • Size of largest city • Proximity to metro- and micropolitan areas	(323)

Definition	Main characteristics	Used in reference
Urban centric location (350)	• Population size • Inside or outside a (principal) city • Distance to urbanized area	(221)

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