**EPOC Low‐ and middle‐income country (LMIC) filters - December 2022**

* Filters have been developed for **MEDLINE and Embase via Ovid**, and **CENTRAL, part of the Cochrane Library.**
* A filter for PubMed will hopefully be published soon.
* These low‐ and middle‐income country (LMIC) filtersare based on the World Bank (WB) yearly updated Country Classification, including Low-Income, Lower-Middle-Income and Upper-Middle-Income Economies, please see the **WB** **current** **and** **historical classification** for the fiscal year 1989 onwards: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
* In addition to relevant terms for **countries**,larger **regions** (e.g., western asia) and **general terms for LMICs** (e.g., developing countries), **demonyms** and **adjectives** (e.g., Egyptian) are included
* We developed these filters to be used primarily when searching for studies to include in systematic reviews
* Therefore, to make sure search strategies will identify publications related to LMICs regardless of the year they were classified by the WB as being an LMIC, we have kept terms for countries currently classified as High-Income Economies (HIE), but previously classified as Low-Income, Lower-Middle-Income or Upper-Middle-Income Economies. These HIE search terms are marked in red.
* To a large extent we have used truncation (\*) to identify plural, adjective, and possessive forms of search terms, e.g., africa\*
* A search for indexed records using the search field **hw** in MEDLINE and Embase Ovid, and kw in CENTRAL:
  + will not necessarily identify records indexed with a narrower term to the term searched (e.g., a search in MEDLINE for **india.hw.** will not include a search for the narrower MeSH term **Sikkim**)
  + will identify records with any index term that includes the search term (e.g., a search in MEDLINE for **guinea.hw.** will include a search for the MeSH **Guinea**, **Papua New Guinea**, **Guinea-Bissau,** etc.)
* **None of these filters have been validated**
* Feel free to add or delete search terms as appropriate
* These filters were developed in collaboration with the WHO library (Tomas Allen and Kavita Kothari), the Campbell Collaboration (John Eyers), and the Cochrane Effective Practice and Organisation of Care group (EPOC) satellite in Norway.
* Thanks a lot for all valuable comments and suggestions received from helpful colleagues, including Robin Paynter’s evaluation, Kate Nyhan for reviewing a previous version of the MEDLINE Ovid filter, Anthea Sutton and Fiona Campbell for sharing the [ScHARR LMIC filter](https://onlinelibrary.wiley.com/doi/10.1002/jrsm.1552) (including relevant terms we had missed, but now added), and Ingvild Kirkehei at the Norwegian Institute of Public Health for a last check before publishing.
* Please cite these filters: **Cochrane Effective Practice and Organisation of Care (EPOC). LMIC filters. epoc.cochrane.org/lmic-filters**

**MEDLINE and Embase, Ovid**

* Combines words in title (ti), words in abstract (ab), subject heading word (hw), and keyword heading word (kf).
* Phrases are not enclosed in quotation marks, except for those that include the word *and* or an *apostrophe*
* Supports only straight (not curly) quotation marks and apostrophes
* Plural, adjective, or possessive forms have been used with terms less useful to truncate, e.g., cuba OR cuban OR cubans OR "cuba's"
* To identify journal names in MEDLINE, Ovid, e.g., Malawi Medical Journal, you need to add a fifth field code, - the journal name field: **jw**, to the code set at the end of the filter, **.ti,ab,hw,kf,jw.**
* To identify journal names in Embase, Ovid, e.g., Malawi Medical Journal, you need to add a fifth field code, - the journal name field: **jx**, to the code set at the end of the filter, **.ti,ab,hw,kf,jx.**

(afghan\* OR africa\* OR albania\* OR algeria\* OR angola\* OR antigua\* OR barbuda\* OR argentin\* OR armenia\* OR aruba\* OR azerbaijan\* OR bahrain\* OR bangladesh\* OR bengal\* OR bangal\* OR barbados\* OR barbadian\* OR bajan OR bajans OR belarus\* OR belorus\* OR byelarus\* OR byelorus\* OR belize\* OR benin\* OR dahomey OR bhutan\* OR bolivia\* OR bosnia\* OR herzegovin\* OR botswan\* OR batswan\* OR bechuanaland\* OR brazil\* OR brasil\* OR bulgaria\* OR burkina\* OR burkinese\* OR upper volta\* OR burundi\* OR urundi\* OR cabo verde\* OR cape verde\* OR cambodia\* OR kampuchea\* OR khmer\* OR cameroon\* OR cameroun\* OR ubangi shari\* OR chad\* OR chile\* OR china\* OR chinese OR colombia\* OR comoro\* OR comore\* OR comorian\* OR mayotte\* OR congo\* OR zaire\* OR costa rica\* OR "cote d'ivoir\*" OR "cote d' ivoir\*" OR cote divoir\* OR cote d ivoir\* OR ivory coast\* OR ivorian\* OR croatia\* OR cuba OR cuban OR cubans OR "cuba's" OR cyprus\* OR cypriot\* OR czech\* OR djibouti\* OR french somaliland\* OR dominica\* OR ecuador\* OR egypt\* OR united arab republic\* OR el salvador\* OR salvadoran\* OR guinea\* OR equatoguinea\* OR eritrea\* OR estonia\* OR eswatini\* OR swaziland\* OR swazi\* OR swati\* OR ethiopia\* OR fiji\* OR gabon\* OR gabonese\* OR gabonaise\* OR gambia\* OR ((georgia OR georgian OR georgians) NOT (atlanta OR california OR florida)) OR ghana\* OR gibraltar\* OR greece\* OR greek\* OR grecian\* OR grenada\* OR grenadian\* OR guam\* OR guatemala\* OR guyana\* OR guiana\* OR guyanese\* OR haiti\* OR hispaniola\* OR hondura\* OR hungary\* OR hungarian\* OR india\* OR indonesia\* OR iran\* OR iraq\* OR isle of man\* OR jamaica\* OR jordan\* OR kazakh\* OR kenya\* OR karabati\* OR korea\* OR kosovo\* OR kosova\* OR kyrgyz\* OR kirgiz\* OR kirghiz\* OR laos OR lao OR laotian\* OR latvia\* OR lebanon\* OR lebanese\* OR lesotho\* OR lesothan\* OR lesothonian\* OR basutoland\* OR mosotho\* OR basotho\* OR liberia\* OR libya\* OR jamahiriya\* OR lithuania\* OR macedonia\* OR madagasca\* OR malagasy\* OR malawi\* OR nyasaland\* OR malaysia\* OR malay\* federation OR maldives\* OR maldivian\* OR indian ocean OR mali OR malian\* OR "mali's" OR malta OR maltese\* OR "malta's" OR micronesia\* OR marshallese\* OR kiribati\* OR marshall island\* OR nauru OR nauran OR nauruans OR "naurian's" OR mariana OR marianas OR palau OR paluan\* OR tuvalu\* OR mauritania\* OR mauritan\* OR mauritius\* OR mexico\* OR mexican\* OR moldova\* OR moldovia\* OR mongol\* OR montenegr\* OR morocco\* OR moroccan\* OR ifni OR mozambique\* OR mozambican\* OR myanmar\* OR burma\* OR burmese OR namibia\* OR nepal\* OR new caledonia\* OR netherlands antill\* OR nicaragua\* OR niger\* OR oman OR omani OR omanis OR "oman's" OR pakistan\* OR palestin\* OR gaza\* OR west bank\* OR panama\* OR paraguay\* OR peru OR peruvian\* OR "peru's" OR philippine\* OR philipine\* OR phillipine\* OR phillippine\* OR filipino\* OR filipina\* OR poland\* OR polish OR pole OR poles OR portugal\* OR portuguese OR puerto ric\* OR romania\* OR russia\* OR ussr\* OR soviet\* OR rwanda\* OR rwandese OR ruanda\* OR ruandese OR samoa\* OR navigator island\* OR pacific island\* OR polynesia\* OR "sao tome and principe\*" OR sao tomean\* OR santomean\* OR saudi arabia\* OR saudi OR saudis OR senegal\* OR serbia\* OR seychell\* OR sierra leone\* OR slovak\* OR sloven\* OR melanesia\* OR solomon island\* OR norfolk island\* OR somali\* OR sri lanka\* OR ceylon\* OR "saint kitts and nevis\*" OR "st kitts and nevis\*" OR kittian\* OR nevisian\* OR saint lucia\* OR st lucia\* OR saint vincent\* OR st vincent\* OR vincentian\* OR grenadine\* OR sudan\* OR surinam\* OR syria\* OR tajik\* OR tadjik\* OR tadzhik\* OR tanzania\* OR tanganyika\* OR thai\* OR timor leste\* OR east timor\* OR timorese\* OR togo OR togoles\* OR "togo's" OR tonga\* OR trinidad\* OR tobago\* OR tunisia\* OR turkiy\* OR turkey\* OR turk OR turks OR turkish OR turkmen\* OR uganda\* OR ukrain\* OR uruguay\* OR uzbek\* OR vanuatu\* OR new hebrides\* OR venezuela\* OR vietnam\* OR viet nam\* OR yemen\* OR yugoslav\* OR zambia\* OR zimbabwe\* OR rhodesia\* OR arab\* countr\* OR middle east\* OR global south OR sahara\* OR subsahara\* OR magreb\* OR maghrib\* OR west indies\* OR caribbean\* OR central america\* OR latin america\* OR south america\* OR central asia\* OR north asia\* OR northern asia\* OR southeastern asia\* OR south eastern asia\* OR southeast asia\* OR south east asia\* OR west asia\* OR western asia\* OR east europe\* OR eastern europe\* OR developing countr\* OR developing nation\* OR developing population\* OR developing world OR less developed countr\* OR less developed nation\* OR less developed world OR lesser developed countr\* OR lesser developed nation\* OR lesser developed world OR under developed countr\* OR under developed nation\* OR under developed world OR underdeveloped countr\* OR underdeveloped nation\* OR underdeveloped world OR middle income countr\* OR middle income nation\* OR middle income population\* OR low income countr\* OR low income nation\* OR low income population\* OR lower income countr\* OR lower income nation\* OR lower income population\* OR underserved countr\* OR underserved nation\* OR underserved population\* OR under served population\* OR under served nation\* OR under served population\* OR deprived countr\* OR deprived population\* OR high burden countr\* OR high burden nation\* OR countdown countr\* OR countdown nation\* OR poor countr\* OR poor nation\* OR poor population\* OR poor world OR poorer countr\* OR poorer nation\* OR poorer population\* OR poorer world OR developing econom\* OR less developed econom\* OR underdeveloped econom\* OR under developed econom\* OR middle income econom\* OR low income econom\* OR lower income econom\* OR low gdp OR low gnp OR low gross domestic OR low gross national OR lower gdp OR lower gnp OR lower gross domestic OR lower gross national OR lmic OR lmics OR third world OR lami countr\* OR transitional countr\* OR emerging econom\* OR emerging nation\*).ti,ab,hw,kf.

**CENTRAL, Cochrane Library**

* Combines words in title (ti), abstract (ab), and keyword (kw), including ‘subject heading word’
* Hyphens between words in a phrase are used to replaces the NEXT operator
* As CENTRAL seems to not support the use of apostrophes, the truncation sign has been used also for terms less useful to truncate, e.g., cuba\*
* To identify journal names in CENTRAL, e.g., Malawi Medical Journal, you need to add a fourth field code, - the Source field: **so**, to the code set at the end of the filter, **:ti,ab,kw,so**

(afghan\* OR africa\* OR albania\* OR algeria\* OR angola\* OR antigua\* OR barbuda\* OR argentin\* OR armenia\* OR aruba\* OR azerbaijan\* OR bahrain\* OR bangladesh\* OR bengal\* OR bangal\* OR barbados\* OR barbadian\* OR bajan OR bajans OR belarus\* OR belorus\* OR byelarus\* OR byelorus\* OR belize\* OR benin\* OR dahomey OR bhutan\* OR bolivia\* OR bosnia\* OR herzegovin\* OR botswan\* OR batswan\* OR bechuanaland OR brazil\* OR brasil\* OR bulgaria\* OR burkina\* OR burkinese\* OR upper-volta\* OR burundi\* OR urundi\* OR cabo-verde\* OR cape-verde\* OR cambodia\* OR kampuchea\* OR khmer\* OR cameroon\* OR cameroun\* OR ubangi-shari\* OR chad\* OR chile\* OR china\* OR chinese OR colombia\* OR comoro\* OR comore\* OR comorian\* OR mayotte\* OR congo\* OR zaire\* OR costa-rica\* OR (cote\* AND \*ivoir\*) OR ivory-coast\* OR ivorian\* OR croatia\* OR cuba\* OR cyprus\* OR cypriot\* OR czech\* OR djibouti\* OR french-somaliland\* OR dominica\* OR ecuador\* OR egypt\* OR united-arab-republic\* OR el-salvador\* OR salvadoran\* OR guinea\* OR equatoguinea\* OR eritrea\* OR estonia\* OR eswatini\* OR swaziland\* OR swazi\* OR swati\* OR ethiopia\* OR fiji\* OR gabon\* OR gabonese\* OR gabonaise\* OR gambia\* OR ((georgia OR georgian OR georgians) NOT (atlanta OR california OR florida)) OR ghana\* OR gibraltar\* OR greece\* OR greek\* OR grecian\* OR grenada\* OR grenadian\* OR guam\* OR guatemala\* OR guyana\* OR guiana\* OR guyanese\* OR haiti\* OR hispaniola\* OR hondura\* OR hungary\* OR hungarian\* OR india\* OR indonesia\* OR iran\* OR iraq\* OR isle-of-man\* OR jamaica\* OR jordan\* OR kazakh\* OR kenya\* OR karabati\* OR korea\* OR kosovo\* OR kosova\* OR kyrgyz\* OR kirgiz\* OR kirghiz\* OR laos OR lao OR laotian\* OR latvia\* OR lebanon\* OR lebanese\* OR lesotho\* OR lesothan\* OR lesothonian\* OR basutoland\* OR mosotho\* OR basotho\* OR liberia\* OR libya\* OR jamahiriya\* OR lithuania\* OR macedonia\* OR madagasca\* OR malagasy\* OR malawi\* OR nyasaland\* OR malaysia\* OR malay-federation OR malaya-federation OR malayan-federation OR maldives\* OR maldivian\* OR indian-ocean\* OR mali\* OR malta\* OR maltese\* OR micronesia\* OR marshallese\* OR kiribati\* OR marshall-island\* OR nauru OR nauran OR nauruans OR nauran\* OR mariana OR marianas OR palau OR paluan\* OR tuvalu\* OR mauritania\* OR mauritan\* OR mauritius\* OR mexico\* OR mexican\* OR moldova\* OR moldovia\* OR mongol\* OR montenegr\* OR morocco\* OR moroccan\* OR ifni OR mozambique\* OR mozambican\* OR myanmar\* OR burma\* OR burmese OR namibia\* OR nepal\* OR new-caledonia\* OR netherlands-antill\* OR nicaragua\* OR niger\* OR oman\* OR pakistan\* OR palestin\* OR gaza\* OR west-bank\* OR panama\* OR paraguay\* OR peru\* OR philippine\* OR philipine\* OR phillipine\* OR phillippine\* OR filipino\* OR filipina\* OR poland\* OR polish OR pole OR poles OR portugal\* OR portuguese OR puerto-ric\* OR romania\* OR russia\* OR ussr\* OR soviet\* OR rwanda\* OR rwandese OR ruanda\* OR ruandese OR samoa\* OR navigator-island\* OR pacific-island\* OR polynesia\* OR sao-tome\* OR santomean\* OR saudi-arabia\* OR saudi OR saudis OR senegal\* OR serbia\* OR seychell\* OR sierra-leone\* OR slovak\* OR sloven\* OR melanesia\* OR solomon-island\* OR norfolk-island\* OR somali\* OR sri-lanka\* OR ceylon\* OR saint-kitts\* OR st-kitts\* OR kittian\* OR nevisian\* OR saint-lucia\* OR st-lucia\* OR saint-vincent\* OR st-vincent\* OR vincentian\* OR grenadine\* OR sudan\* OR surinam\* OR syria\* OR tajik\* OR tadjik\* OR tadzhik\* OR tanzania\* OR tanganyika\* OR thai\* OR timor-leste\* OR east-timor\* OR timorese\* OR togo\* OR tonga\* OR trinidad\* OR tobago\* OR tunisia\* OR turkiy\* OR turkey\* OR turk OR turks OR turkish OR turkmen\* OR uganda\* OR ukrain\* OR uruguay\* OR uzbek\* OR vanuatu\* OR new-hebrides OR venezuela\* OR vietnam\* OR viet-nam\* OR yemen\* OR yugoslav\* OR zambia\* OR zimbabwe\* OR rhodesia\* OR arab-countr\* OR arabic-countr\* OR middle-east\* OR global-south OR sahara\* OR subsahara\* OR magreb\* OR maghrib\* OR west-indies\* OR caribbean\* OR central-america\* OR latin-america\* OR south-america\* OR central-asia\* OR north-asia\* OR northern-asia\* OR southeastern-asia\* OR south-eastern-asia\* OR southeast-asia\* OR south-east-asia\* OR west-asia\* OR western-asia\* OR east-europe\* OR eastern-europe\* OR developing-countr\* OR developing-nation\* OR developing-population\* OR developing-world OR less-developed-countr\* OR less-developed-nation\* OR less-developed-world OR lesser-developed-countr\* OR lesser-developed-nation\* OR lesser-developed-world OR under-developed-countr\* OR under-developed-nation\* OR under-developed-world OR underdeveloped-countr\* OR underdeveloped-nation\* OR underdeveloped-world OR middle-income-countr\* OR middle-income-nation\* OR middle-income-population\* OR low-income-countr\* OR low-income-nation\* OR low-income-population\* OR lower-income-countr\* OR lower-income-nation\* OR lower-income-population\* OR underserved-countr\* OR underserved-nation\* OR underserved-population\* OR under-served-population\* OR under-served-nation\* OR under-served-population\* OR deprived-countr\* OR deprived-population\* OR high-burden-countr\* OR high-burden-nation\* OR countdown-countr\* OR countdown-nation\* OR poor-countr\* OR poor-nation\* OR poor-population\* OR poor-world OR poorer-countr\* OR poorer-nation\* OR poorer-population\* OR poorer-world OR developing-econom\* OR less developed-econom\* OR underdeveloped-econom\* OR under-developed-econom\* OR middle-income-econom\* OR low-income-econom\* OR lower-income-econom\* OR low-gdp OR low-gnp OR low-gross-domestic OR low-gross-national OR lower-gdp OR lower-gnp OR lower-gross-domestic OR lower-gross-national OR lmic OR lmics OR third-world OR lami-countr\* OR transitional-countr\* OR emerging-econom\* OR emerging-nation\*):ti,ab,kw