

## Supplementary appendix

### Appendix S1 – MEDLINE search strategy for systematic review on progress in pneumonia control for children in LMICs: countries reporting on GAPPD indicators

#### MEDLINE (Ovid) Search strategy

#1	(gappd or (Global-action-plan adj7 pneumonia)).tw,kf.
#2	exp *Pneumonia/
#3	((lower-respiratory adj3 infection*) or pneumonia or pneumonias or lung-inflammation* or lobitis or nonspecific-inflammatory-lung-disease* or peripneumonia or pleuropneumonia or pleuropneumonitis or pneumonic-lung* or pneumonic-pleurisy or pneumonic-pleuritis or pneumonitides or pneumonitis or pulmonal-inflammation* or pulmonary-inflammation* or pulmonic-inflammation* or bronchiolitis).tw,kf.
#4	*Pneumococcal Infections/
#5	2 or 3 or 4
#6	*Global Health/
#7	exp *"Delivery of Health Care, Integrated"/
#8	*International Cooperation/
#9	*consensus development conferences as topic/
#10	(national* or global* or coordinated or co-ordinated or coordination or co-ordination or coalition or integrated or international*).tw,kf.
#11	6 or 7 or 8 or 9 or 10
#12	(intervention* or action* or plan* or goal* or strateg* or program* or policy or policies or guideline* or consensus).tw,kf.
#13	*evaluation studies as topic/ or *program evaluation/
#14	exp *immunization/ or *Immunization Programs/
#15	(hiv and (anti-retroviral* or antiretroviral*) and pregnan*).tw,kf,hw
#16	exp *Anti-Bacterial Agents/tu
#17	*Breast Feeding/
#18	*Breast Feeding/
#19	*Health Knowledge, Attitudes, Practice/ or *"treatment adherence and compliance"/or exp *"patient acceptance of health care"/
#20	(antibiotic* or amoxicillin* or amoxycillin* or gentamicin* or gentamycin* or cotrimoxazole or cotrimoxazole or breastfeeding or breast-feeding or air-pollution or (clean adj3 fuel*) or care-seeking).tw,kf.
#21	(pnu-im?une or pnuim?une or pcv10 or pcv-10 or pcv13 or pcv-13 or prevenar13 or prevenar-13 or prevnar13 or prevnar-13).tw,kf.
#22	((10-valent or ten-valent or 13-valent or thirteen-valent) and (pneumococcal adj5 vaccine*)).tw,kf.
#23	((Hib or Haemophilus-influenzae-type-b or DTP3 or Diphtheria-tetanus-pertussis or measles) and (vaccine* or immuni#ation*)).tw,kf.
#24	exp *Pneumococcal Vaccines/ or *Haemophilus Vaccines/ or exp *Measles Vaccine/ or *Diphtheria-Tetanus-Pertussis Vaccine/
#25	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
#26	(mo or pc).fs.
#27	exp *mortality/ or *Death/ or *infant death/
#28	(mortalit* or death* or surviv* or prevent* or control*).tw,kf.
#29	*preventive medicine/
#30	26 or 27 or 28 or 29
#31	*united nations/ or exp *world health organization/
#32	(UN or WHO or United-Nation* or World-Health-Organization*).tw,kf.
#33	developing countries/
#34	(austere or (limited adj2 resource*) or (low adj2 resource*) or (transitioning adj econom*) or (third adj world) or LMIC or LMICs or (lami adj countr*) or (transitional adj countr*) or (low adj gdp) or (low adj gnp) or (low adj gross adj domestic) or (low adj gross adj national) or ((emerging or

	developing or (low adj income) or (middle adj income) or (low adj3 middle) or underdeveloped or under-developed or (less* adj developed) or underserved or under-served or deprived or poor*) and (countr* or nation*1 or econom* or population or world)).tw,kf.
#35	exp africa/
#36	americas/ or exp caribbean region/ or exp central america/ or latin america/ or mexico/ or exp south america/
#37	europa/ or exp europe, eastern/ or exp transcaucasia/
#38	antarctic regions/ or exp atlantic islands/ or exp indian ocean islands/ or exp pacific islands/
#39	New Guinea/
#40	asia/ or exp asia, central/ or asia, southeastern/ or borneo/ or cambodia/ or east timor/ or indonesia/ or laos/ or malaysia/ or mekong valley/ or myanmar/ or philippines/ or thailand/ or vietnam/ or asia, western/ or bangladesh/ or bhutan/ or india/ or middle east/ or afghanistan/ or iran/ or iraq/ or jordan/ or lebanon/ or oman/ or saudi arabia/ or syria/ or turkey/ or yemen/ or nepal/ or pakistan/ or sri lanka/ or far east/ or china/ or tibet/ or exp korea/ or mongolia/
#41	(Afghanistan or Albania or Algeria or Angola or Antigua or Argentina or Armenia* or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Barbuda or Belarus or Byelarus* or Byelorussian or Belorussian or Belarus* or Belize or Benin or Bhutan or Bolivia or Bosnia or Botswana or Brasil or Brazil or Bulgaria or (Burkina adj Fas*) or (Upper adj Volta) or Burma or Burundi or Cambodia or Khmer or Kampuchea or Cameron* or Cameroon* or (Cape adj Verde) or (Cabo adj Verde) or (Central adj African adj Republic) or Chad or Chile or China or Colombia or Comoros or (Comoro adj Island*) or Comores or Mayotte or Congo or Kongo or (Cook adj Island*) or (Costa adj Rica) or (Cote adj D'ivoire) or Croatia or Cuba or Cyprus or Czech* or Djibouti or Dominica or Dominican or (East adj Timor) or (East adj Timur) or Ecuador or Egypt or El-Salvador or (Equatorial adj Guinea) or Eritrea or Estonia or Ethiopia or Fiji or (French adj Somaliland) or Futuna or Gabon or (Gabonese adj Republic) or Gambia or Gaza or (Georgia* adj Republic) or Ghana or Grenada or Guam or Guatemala or Guinea or Guiana or Guyana or Haiti or Herzeg* or Hercegovina or Honduras or Hungary or India or Indonesia or Iran or Iraq or (Ivory adj Coast) or Jamaica or Jordan or Kazakh* or Kenya or Kiribati or Korea or Kosovo or (Kyrgyz adj Republic) or Kyrgyzstan or Kirghizia or Kirghiz or Kirgizstan or Laos or (Lao* adj2 Democratic adj Republic) or (Lao* adj PDR) or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or (Magalasy adj Republic) or Malawi or Malay* or Sabah or Sarawak or Maldives or Mali or (Marshall adj Island*) or Mauritania or Mauritius or (Agalega adj Island*) or Mexico or Micronesia or Moldov* or Mongolia or Montserrat or Montenegro or Morocco or Ifni or Mozambique or Myanma* or Namibia or Nauru or Nepal or (Netherlands adj Antilles) or (Dutch adj Antilles) or (New adj Guinea) or (New adj Caledonia) or Nicaragua or Niue or Niger or Nigeria or (Northern adj Mariana adj Island*) or Nyasaland or Oman or Pakistan or Palau or Panama or (Papua adj New adj Guinea) or PNG or Palestine or Paraguay or Peru or Philipines or Philippines or Phillipines or Phillippines or Poland or (Puerto adj Rico) or Yemen or Romania or Roumania or Rumania or Russia* or Rwanda or Ruanda or (Saint adj Kitts) or (St adj Kitts) or Nevis or (Saint adj Vincent) or (St adj Vincent) or Grenadines or Samoa* or (Navigator adj Island*) or (Saint adj Lucia) or (St adj Lucia) or (Saint adj Helena) or (St adj Helena) or (Sao adj Tome) or (Saudi adj Arabia) or Senegal or Serbia or Seychelles or (Sierra adj Leone) or Slovenia or Slovak* or (South adj Africa) or (Solomon adj Island*) or Somalia or (Sri adj Lanka) or Ceylon or Sudan or Surinam* or Swaziland or Syria or Tajikistan or Tadjhikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Tibet or Timor-Leste or Togo or (Togolese adj Republic) or Tokelau or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Tuvalu or Uganda or Ukraine or Uruguay or Urundi or USSR or (Soviet adj Union) or "Union of Soviet Socialist Republics" or Uzbekistan or Vanuatu or (New adj Hebrides) or Venezuela or Vietnam or (Viet adj Nam) or (Wallis adj2 Futuna) or (United adj Arab adj Republic) or (West adj Bank) or (West adj Indies) or Yemen or Yugoslavia or Zaire or Zambia or Zimbabwe or Rhodesia).tw,kf.
#42	(africa or americas or caribbean or (central adj America) or (latin adj America) or (south adj America) or (eastern adj Europe) or Transcaucasia or antarctic or (atlantic adj island*) or (indian adj ocean adj island*) or (pacific adj island*) or polynesia or (central adj asia) or (southeast* adj asia) or (south-east* adj asia) or borneo or mekong or (western adj asia) or (middle adj east) or (far adj east)).tw,kf.

#43	31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42
#44	(newborn* or new-born* or baby or babies or neonat* or neo-nat* or infan* or toddler* or pre-schooler* or preschooler* or kinder or kinders or kindergarten* or kinder-aged or boy or boys or girl or girls or child or children or childhood or pediatric* or paediatric* or adolescen* or youth or youths or teen or teens or teenage* or school-age* or schoolage* or schoolchild* or schoolgirl* or schoolboy*).af.
#45	5 and 11 and 25 and 30 and 43 and 44
#46	1 or 45
#47	limit 46 to (english language and yr="2015 -Current")

#### Appendix S2: List of include countries in the WHO GAPPD monitoring database

WHO Region	Country
African Region (AFR)	Algeria
	Angola
	Benin
	Botswana
	Burkina Faso
	Burundi
	Cabo Verde
	Cameroon
	Central African Republic
	Chad
	Comoros
	Congo
	Côte d'Ivoire
	Democratic Republic of the Congo
	Equatorial Guinea
	Eritrea
	Ethiopia
	Gabon
	Gambia
	Ghana
	Guinea
	Guinea-Bissau
	Kenya
	Lesotho
	Liberia
	Madagascar
	Malawi
	Mali
	Mauritania
	Mauritius
	Mozambique
Namibia	
Niger	
Nigeria	
Rwanda	
Sao Tome and Principe	
Senegal	
Sierra Leone	
South Africa	
South Sudan	
Swaziland	

	<p>Togo  Uganda  United Republic of Tanzania  Zambia  Zimbabwe</p>
Eastern Mediterranean Region (EMR)	<p>Afghanistan  Djibouti  Egypt  Iran (Islamic Republic of)  Iraq  Jordan  Lebanon  Libya  Morocco  Pakistan  Somalia  Sudan  Syrian Arab Republic  Tunisia  Yemen</p>
European Region (EUR)	<p>Albania  Armenia  Azerbaijan  Belarus  Bosnia and Herzegovina  Bulgaria  Croatia  Georgia  Kazakhstan  Kyrgyzstan  Montenegro  Republic of Moldova  Romania  Russian Federation  Serbia  Tajikistan  The former Yugoslav Republic of Macedonia  Turkey  Turkmenistan  Ukraine  Uzbekistan</p>
Region for the Americas (AMR)	<p>Argentina  Belize  Bolivia (Plurinational State of)  Brazil  Colombia  Costa Rica  Cuba  Dominica  Dominican Republic  Ecuador  El Salvador  Grenada  Guatemala  Guyana  Haiti</p>

	<p>Honduras  Jamaica  Mexico  Nicaragua  Panama  Paraguay  Peru  Saint Lucia  Saint Vincent and the Grenadines  Suriname  Venezuela (Bolivarian Republic of)</p>
South-East Asia Region (SEAR)	<p>Bangladesh  Bhutan  Democratic People's Republic of Korea  India  Indonesia  Maldives  Myanmar  Nepal  Sri Lanka  Thailand  Timor-Leste</p>
Western Pacific Region (WPR)	<p>Cambodia  China  Cook Islands  Fiji  Kiribati  Lao People's Democratic Republic  Malaysia  Marshall Islands  Micronesia (Federated States of)  Mongolia  Nauru  Niue  Papua New Guinea  Philippines  Samoa  Solomon Islands  Tonga  Tuvalu  Vanuatu  Viet Nam</p>