

Supplemental material 4: Table of Excluded Studies and reasons for exclusion (sorted by author and year).

Article title: Human resources for health: a framework synthesis to put health workers at the centre of health care.

Journal name: BMJ Global Health

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IDN	Study	Reasons
1	9212 Aberese-Ako 2018	Contains framework: No
2	1914 Abreu 2015	Human resources focus: No; Contains framework: No; LMIC: Unclear
3	9211 Aitken 1994	Human resources focus: No
4	9210 Akenroye 2013	Contains framework: No
5	9209 Akter 2016	Contains framework: No
6	1934 Almeida 2019	Contains framework: No; LMIC: Unclear
7	9208 Alonso-Garbayo 2017	Contains framework: No
8	9207 Amde 2014	Contains framework: No
9	6347 Ameh 2016	Contains framework: No
10	1945 Andrade 2009	Human resources focus: No; Contains framework: No; LMIC: No
11	1947 Angelim 2018	Human resources focus: Unclear; Contains framework: No; LMIC: Unclear
12	1946 Angelim 2019	Human resources focus: Unclear; Contains framework: No; LMIC: Unclear

13	1950	Antunes 2007	Human resources focus: No; Contains framework: No; LMIC: No
14	1952	Araújo 2020	Human resources focus: No; Contains framework: No; LMIC: No
15	1958	Arrasco 2008	Human resources focus: No; Contains framework: No; LMIC: Unclear
16	9206	Avortri 2019	Contains framework: No
17	9205	Awases 2010	Contains framework: No
18	9217	Bach 2001	Contains framework: No
19	4761	Baião 2014	Contains framework: No; LMIC: No
20	9204	Ballard 2017	Contains framework: No
21	9203	Bangdiwala 2010	Contains framework: No
22	1972	Baptista 2015	Human resources focus: No; Contains framework: No; LMIC: Unclear
23	9202	Baral 2018	Contains framework: No
24	4784	Batoca Silva 2019	Human resources focus: No; Contains framework: No; LMIC: Unclear
25	9201	Behera 2019	Contains framework: No
26	9200	Bernardes 2012	Contains framework: No; LMIC: No
27	1989	Bezerra 2014	Human resources focus: No; Contains framework: No; LMIC: Unclear
28	1990	Bhattacharya 2008	Contains framework: No; LMIC: No
29	1999	Bonfim 2015	Contains framework: No; LMIC: No
30	9199	Bosch-Capblanch 2008	Contains framework: No
31	2004	Bosquetti 2008	Contains framework: No; LMIC: Unclear
32	9198	Bowser 2014	Contains framework: No
33	9197	Bresick 2019	Human resources focus: No; Contains framework: No
34	9224	Buchan 2004	Contains framework: No
35	2923	Cailhol 2013	Human resources focus: Unclear; Contains framework: No
36	9196	Cailhol 2013	Contains framework: No
37	4866	Camargo 2019	Human resources focus: No; Contains framework: No; LMIC: Unclear
38	9195	Campbell 2008	Human resources focus: No

39	2025	Carvalho 2008	Human resources focus: No; Contains framework: No; LMIC: No
40	2029	Castro Filho 2007	Contains framework: No; LMIC: No
41	2032	Cavalcante 2018	Contains framework: No; LMIC: No
42	9193	Chima 2015	Human resources focus: No; Contains framework: No
43	9192	Chung 2020	Human resources focus: No; LMIC: No
44	9191	Conn 1996	Contains framework: No
45	4930	Corrêa Lima 2018	Human resources focus: No; Contains framework: No; LMIC: Unclear
46	9190	Crisp 2011	Human resources focus: Unclear; Contains framework: No; LMIC: Unclear
47	2062	Cruz 2018	Human resources focus: No; Contains framework: No; LMIC: Unclear
48	9189	Curtin 2020	Contains framework: No
49	9225	Dal Poz 2009	Contains framework: No
50	9188	Damari 2019	Contains framework: No
51	9187	Daniels 2014	Contains framework: No
52	387	de Graft-Johnson 2017	Human resources focus: No; Contains framework: No
53	4983	de Lima Dalmolin 2020	Contains framework: No; LMIC: No
54	2074	Demirdjian 2017	Contains framework: No; LMIC: No
55	5008	Di Carla Laitano 2019	Contains framework: No; LMIC: Unclear
56	9220	Dieleman 2006	Contains framework: No
57	9185	Dol 2020	Contains framework: No
58	9184	Dolea 2010	Contains framework: No
59	2089	Ebling 2012	Contains framework: No; LMIC: No
60	9183	Edmonstone 2018	Contains framework: No
61	9182	Farrenkopf 2019	Contains framework: No
62	9181	Faye 2013	Contains framework: No
63	2109	Ferreira 2015	Human resources focus: No; Contains framework: No; LMIC: Unclear
64	9180	Fonn 2011	Contains framework: No
65	9179	Fort 2017	Contains framework: No

66	2120	Forte 2019	Contains framework: No; LMIC: Unclear
67	2128	Gama 2013	Contains framework: No; LMIC: No
68	2131	Garcia 2020	Contains framework: No; LMIC: Unclear
69	5127	Garcia Teles Nunes 2014	Contains framework: No; LMIC: Unclear
70	3197	Gersovitz 2018	Contains framework: No; LMIC: Unclear
71	9176	Gilson 2006	Contains framework: No
72	2149	Gonzalez 2017	Contains framework: No; LMIC: No
73	630	Habte 2004	Contains framework: No
74	7033	Hagopian 2012	Contains framework: No
75	9173	Hagopian 2012	Contains framework: No
76	9172	Harries 2005	Contains framework: No
77	9171	Herrera 2017	Human resources focus: Unclear; Contains framework: No
78	2177	Herval 2017	Contains framework: No; LMIC: No
79	9170	Hill 2014	Contains framework: No
80	9169	Hongoro 2004	Contains framework: No
81	9167	Iyer 2013	Contains framework: No
82	9165	Jaeger 2018	Contains framework: No
83	2201	Jesus 2017	Contains framework: No; LMIC: No
84	9164	Joseph 2017	Human resources focus: No; Contains framework: No
85	9163	Kadt 1989	Human resources focus: No; Contains framework: No
86	9162	Kamran 2005	Contains framework: No
87	3446	Kanamori 2016	Human resources focus: Unclear; Contains framework: No
88	9160	Katou 2014	Contains framework: No
89	9159	Khurshid 2014	Contains framework: No
90	9158	Kigume 2019	Human resources focus: No; Contains framework: Unclear
91	9157	Kingue 2013	Contains framework: No
92	5330	Klein 2017	Human resources focus: No; Contains framework: No; LMIC: No
93	9156	Kok 2015	Contains framework: No

94	9155	Kok 2015	Contains framework: No
95	9154	Kudsk-Iversen 2018	Contains framework: No
96	9153	Kuganab Lem 2011	Contains framework: No
97	9151	Kurowski 2007	Contains framework: No
98	9150	Lagarde 2012	Contains framework: No
99	9149	Langlois 2020	Human resources focus: No; Contains framework: No
100	9148	Lassi 2016	Contains framework: No
101	5388	Lemões 2019	Contains framework: No; LMIC: Unclear
102	5401	Lima de Oliveira 2018	Human resources focus: No; Contains framework: No; LMIC: Unclear
103	9146	Linnander 2017	Contains framework: No
104	2247	Llapa-Rodríguez 2008	Human resources focus: Unclear; Contains framework: No
105	9145	Llapa-Rodríguez 2008	Contains framework: No
106	9143	Long 2018	Contains framework: No
107	9142	Luiz 2017	Contains framework: No
108	2257	Luna 2013	Contains framework: No; LMIC: Unclear
109	2272	Mandelli 2015	Contains framework: No; LMIC: Unclear
110	5457	Manyisa 2020	LMIC: No
111	9141	Manyisa 2020	Contains framework: No
112	9140	Marchal 2008	Contains framework: No
113	9139	Martiniuk 2019	Contains framework: No; LMIC: Unclear
114	9137	Matovu 2013	Contains framework: No
115	9136	McAuliffe 2009	Contains framework: No
116	1107	McCourt 2007	Contains framework: No
117	9135	McCourt 2007	Contains framework: No
118	9134	McPake 2019	Contains framework: No
119	2289	Mello 2016	Human resources focus: No; Contains framework: No; LMIC: No
120	9133	Mirou 2018	Contains framework: No
121	9132	Mitchell 2013	Contains framework: No
122	9131	Mormina 2018	Contains framework: No
123	2320	Moura 2020	Contains framework: No; LMIC: Unclear

124	9130	Muhimpundu 2019	Contains framework: No
125	9129	Mukherjee 2020	Contains framework: No
126	9128	Mutale 2017	Contains framework: No
127	9127	Mwihia 2018	Contains framework: No
128	2341	Nasi 2015	Contains framework: No; LMIC: Unclear
129	1263	Ndenga 2016	Contains framework: No
130	9125	Nishtar 2006	Contains framework: No
131	2351	Nunes 2020	Human resources focus: No; Contains framework: No; LMIC: No
132	9124	O'Connell 2016	Contains framework: No
133	9123	Ojo 2015	Contains framework: No
134	9122	Olayo 2014	Human resources focus: Unclear; Contains framework: No
135	2365	Oliveira 2012	Human resources focus: No; Contains framework: No; LMIC: Unclear
136	2373	Oliveira 2015	Human resources focus: No; Contains framework: No; LMIC: No
137	2361	Oliveira 2017	Contains framework: Unclear; LMIC: No
138	2375	Oliveira 2020	Human resources focus: No; Contains framework: No; LMIC: No
139	5634	Oliveira Arruda 2017	Human resources focus: No; Contains framework: No; LMIC: No
140	9121	Onono 2018	Contains framework: No
141	5639	Orlandi Barth 2019	Contains framework: No; LMIC: No
142	9119	PAHO NA	Contains framework: No
143	9090	PAHO NA	Contains framework: No
144	9091	PAHO NA	Contains framework: No
145	9120	Palmer 2006	Contains framework: No
146	9118	Pantoja 2017	Contains framework: No
147	9117	Parveen 2020	Contains framework: No
148	9116	Paulo 2019	Contains framework: No; LMIC: No
149	9115	Pawan 2014	Contains framework: No; LMIC: No
150	2402	Peiter 2016	Contains framework: No; LMIC: Unclear
151	9114	Peyman 2007	Contains framework: No

152	2412	Pichardo Rodriguez 2020	Human resources focus: No; Contains framework: No; LMIC: Unclear
153	9113	Poortaghi 2021	Contains framework: No
154	9112	Pourreza 2017	Human resources focus: Unclear; Contains framework: No
155	2441	Ribeiro 2017	Human resources focus: No; Contains framework: No; LMIC: Unclear
156	5748	Ribeiro Barra 2012	Contains framework: No; LMIC: No
157	9110	Rispel 2018	Contains framework: No
158	2445	Rodrigues 2016	Contains framework: No; LMIC: Unclear
159	5774	Ruíz-González 2020	Human resources focus: No; Contains framework: No; LMIC: Unclear
160	9108	Safaya 1991	Contains framework: No; LMIC: Unclear
161	2460	Saito 2015	Human resources focus: No; Contains framework: No; LMIC: Unclear
162	9107	Samuel 2007	Contains framework: No
163	9106	Sang 2016	Human resources focus: Unclear; Contains framework: No; LMIC: Unclear
164	2469	Santos 2010	Contains framework: No; LMIC: No
165	2468	Santos 2016	Contains framework: No; LMIC: No
166	9105	Schull 2010	Contains framework: No
167	9104	Seyed Abas 2013	Contains framework: No
168	2511	Silva 2021	Human resources focus: No; Contains framework: No; LMIC: No
169	5864	Silvestre de Lima 2018	Human resources focus: No; Contains framework: No; LMIC: Unclear
170	9103	Simmonds 1989	Contains framework: No; LMIC: Unclear
171	9102	Simon 2020	Contains framework: No
172	5877	Soares Nobre 2018	Human resources focus: No; Contains framework: No; LMIC: Unclear
173	2524	Sousa 2020	Human resources focus: No; Contains framework: No; LMIC: Unclear
174	9101	Sumah 2019	Human resources focus: Unclear; Contains framework: No
175	9100	Taderera 2019	Contains framework: No
176	2546	Tanaka 2015	Human resources focus: No; Contains framework: No; LMIC: No

177	9099	Thuku 2020	Contains framework: No
178	9098	Tomblin Murphy 2013	Contains framework: No; LMIC: Unclear
179	9097	Tomokawa 2020	Human resources focus: Unclear; Contains framework: No; LMIC: No
180	5952	Torres Andrade 2016	Human resources focus: No; Contains framework: No; LMIC: No
181	2552	Toso 2016	Contains framework: No; LMIC: No
182	9096	Touré 2013	Contains framework: No
183	9095	Uduma 2017	Contains framework: No
184	2559	Uema 2020	Human resources focus: No; Contains framework: No; LMIC: Unclear
185	9094	van Doorn 2016	Contains framework: No
186	9093	Vasan 2017	Contains framework: No
187	9213	WHO 1989	Contains framework: No
188	9221	WHO 2010	Contains framework: No
189	9214	WHO 2014	Contains framework: No
190	9092	Willis-Shattuck 2008	Contains framework: No
191	9219	Wyss 2004	Human resources focus: No
192	9089	Zakumumpa 2016	Contains framework: No
193	8564	Zalani 2018	Contains framework: No
194	9087	Zeitz 1993	Contains framework: No
195	9086	Zhou 2019	Contains framework: No; LMIC: No

IDN: unique identification number of references.