

**Additional file 1. Search strategy**

S. No	Query
1.	"Polymerase chain reaction"[MeSH] OR Polymerase chain reaction[tw] OR PCR(tw)
2.	Detection (tw) OR Identification (tw) OR Characterization(tw)
3.	Pathogenic microbes (tw) OR "bacteria"[MeSH] OR Bacteria[Text Word] OR "escherichia coli"[MeSH s] OR E. coli[tw]OR "viruses"[MeSH] OR Virus[tw]OR Protozoa (tw)
4.	Improved water (tw) OR "drinking water"[MeSH] OR Drinking water[tw]
5.	1 AND 2 AND 3 AND 4
6.	Low- and middle-income countries (tw) OR Africa (tw) OR Asia (tw) OR Caribbean Countries (tw)
7.	5 AND 6
8.	Limit 7 to English

MeSH=Medical subject headings, tw=text word