**Ovid MEDLINE(R)**

| # | Searches |
|---|----------|
| 1 | Sewage/ch, is, ip, mt, mi, ps, pc, vi |
| 2 | (wastewater/ or sewage/ or water pollution/) and (exp communicable disease control/ or epidemiological monitoring/ or exp environmental monitoring/) |
| 3 | (wastewater/ or sewage/ or water pollution/) and isolation purification.fs. |
| 4 | Wastewater-Based Epidemiological Monitoring/ |
| 5 | ((wastewater? or sewage) adj3 (sampl* or surveil* or monitor* or treatment plant? or test*)).ab,kf,ti. |
| 6 | ((wastewater? or sewage) adj10 (detect* or charact* or concentration)).ab,kf,ti. |
| 7 | wastewater microbiome.ab,kf,ti. |
| 8 | sewage signal*.ab,kf,ti. |
| 9 | or/1-8 [sewage sampling] |
| 10 | communicable disease control/ or public health/ |
| 11 | epidemiology.fs. |
| 12 | (public health or lockdown or virus spread or epidemiol* or epidemic* or endemic* or pandemic* or community wastewater? or ((spread or surveillance) adj5 (infection or disease or virus* or norovirus* or bacter* or parasit* or fung*)) or (spread adj3 infection)).ab,kf,ti. |
| 13 | or/10-12 [public health] |
| 14 | communicable diseases/ |
| 15 | (communicable disease? or fungi or bacter* or parasite? or virus* or viral or norovirus or infect*).ab,kf,ti. |
| 16 | 9 and 13 |
| 17 | limit 16 to covid-19 |
| 18 | or/14-15,17 [infectious agents] |
| 19 | and/9,13,18 |
| 20 | wastewater based epidemiological monitoring/ |
| 21 | 19 or 20 |

**Ovid Embase Classic+Embase**

| # | Searches |
|---|----------|
| 1 | Sewage/ |
| 2 | (exp wastewater/ or sewage/ or exp water pollution/) and (exp communicable disease control/ or exp epidemiological monitoring/ or environmental monitoring/ or exp environmental surveillance/ or water monitoring/) |
| 3 | Wastewater-Based Epidemiology/ |
| 4 | ((wastewater? or sewage) adj3 (sampl* or surveil* or monitor* or treatment plant? or test*)).ab,kw,ti. |
| 5 | ((wastewater? or sewage) adj10 (detect* or charact* or concentration)).ab,kw,ti. |
| 6 | wastewater microbiome.ab,kw,ti. |
| 7 | sewage signal*.ab,kw,ti. |
| 8 | or/1-7 [sewage sampling] |
| 9 | exp communicable disease control/ or public health/ |
| 10 | epidemiology.fs. |
| 11 | (public health or lockdown or virus spread or epidemiol* or epidemic* or endemic* or pandemic* or community wastewater? or ((spread or surveillance) adj5 (infection or disease or virus* or norovirus* or bacter* or parasit* or fung*)) or (spread adj3 infection)).ab,kw,ti. |
| 12 | or/9-11 [public health] |
| 13 | exp *infection/ or *fungus/ or *parasite/ or *virus/ |
| 14 | (communicable disease? or fungi or bacter* or parasite? or virus* or viral or norovirus or infect*).ab,kw,ti. |
| 15 | 8 and 12 |
| 16 | limit 15 to covid-19 |
| 17 | or/13-14,16 [infectious agents] |
| 18 | and/8,12,17 |
| 19 | wastewater based epidemiology.mp. |
| 20 | 18 or 19 |

**Web of Science Core Collection**

| # | Searches |
|---|----------|
| 1 | TS=((wastewater? or sewage) NEAR/2 (sampl* or surveil* or monitor* or "treatment plant?" or test*)) |
| 2 | TS=((wastewater? or sewage) NEAR/9 (detect* or charact* or concentration)) |
| 3 | TS="wastewater microbiome" |
| 4 | TS="sewage signal*" |
| 5 | #4 OR #3 OR #2 OR #1 |
| 6 | TS=("public health" or lockdown or virus spread or epidemiol* or epidemic* or endemic* or pandemic* or "community wastewater?" or ((spread or surveillance) NEAR/4 (infection or disease or virus* or norovirus* or bacter* or parasit* or fung*)) or (spread NEAR/2 infection)) |
| 7 | TS=("communicable disease?" or fungi or bacter* or parasite? or virus* or viral or norovirus or infect*) |
| 8 | #5 AND #6 AND #7 |