S.No.	Countries	Covid-19 incidences	Covid-19 deaths	Covid-19 deaths/ million	Mortality rate
1	US	1497244	89420	275.8	5.97
2	UK	240161	34466	523.33	14.35
3	Italy	224760	31763	529.64	14.13
4	Spain	231350	27650	593.04	11.95
5	France	142291	27625	421.07	19.41
6	Brazil	233511	15662	80.46	6.70
7	Belgium	55280	9052	794.95	16.37
8	Germany	176244	8027	96.96	4.55
9	Iran	118392	6937	86.27	5.85
10	Canada	77002	5782	160.83	7.50
11	Netherlands	43995	5680	334.11	12.91
12	Mexico	47144	5045	42.25	10.70
13	China	82947	4634	3.33	5.58
14	Turkey	148067	4096	50.67	2.76
15	Sweden	29677	3674	353.15	12.37
16	India	90927	2872	2.34	3.15
17	Peru	92273	2648	87.19	2.86
18	Russia	281752	2631	18.84	0.93
19	Switzerland	30587	1808	213.2	5.91
20	Portugal	29036	1218	118.4	4.19
21	Romania	16871	1107	56.71	6.56

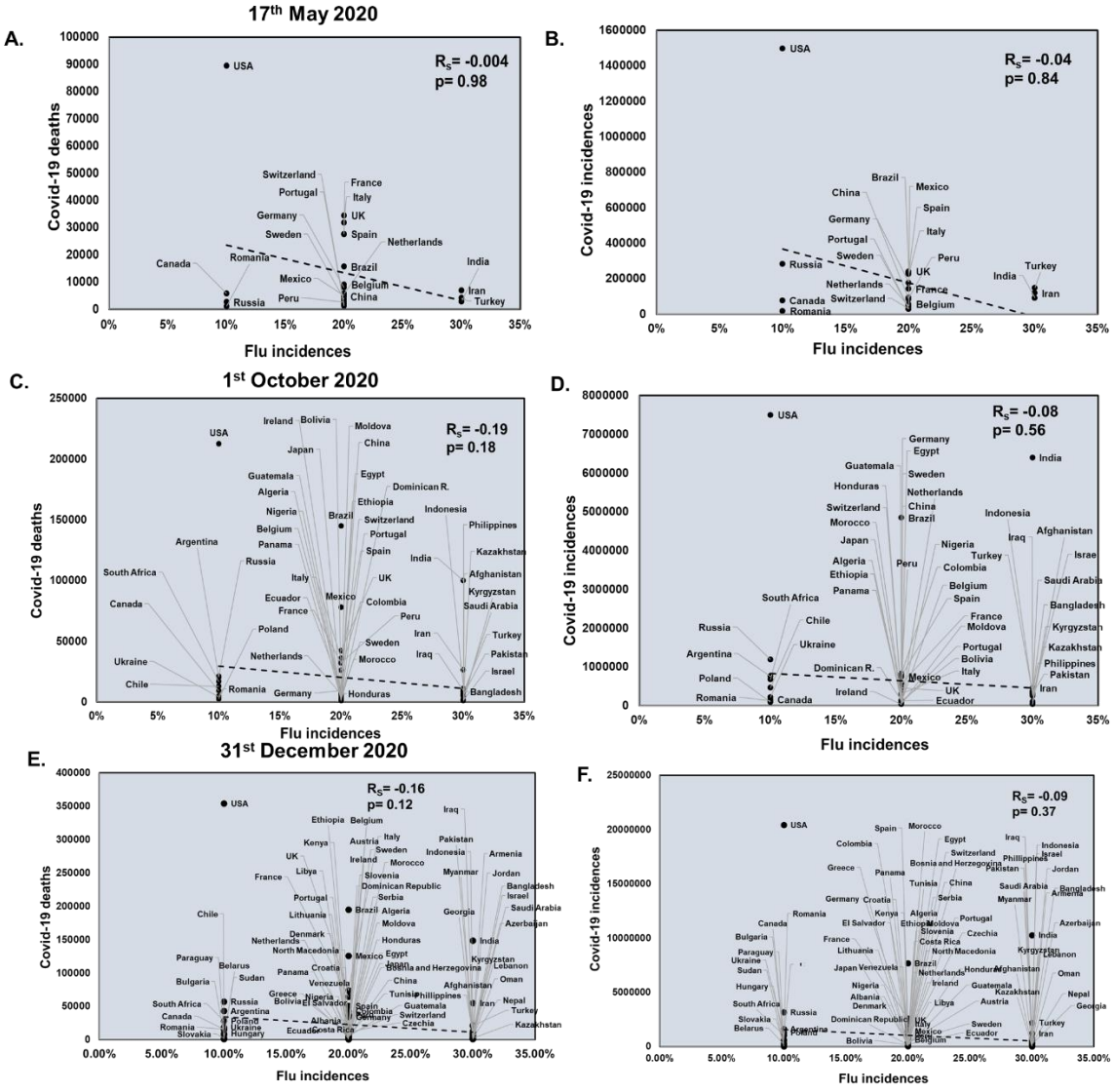
Supplementary Table 1: Countries were arranged based on highest to lowest deaths due to COVID-19 infections. Data for COVID-19 incidences and death has been shown as of 17th May 2020.

S.No.	Countries	Covid-19 incidences	Covid-19 deaths	Covid-19 deaths/ million	Mortality rate	Flu incidences	Flu deaths/100000	Flu Vac coverage	T.B.	T.B. deaths/100000	BCG coverage
1	USA	7494671	212660	642	2.83	10%	15	69.10%	10000	0.12	N.A.
2	Brazil	4849229	144767	680	2.98	20%	42.96	71.80%	84000	2.74	86.90%
3	India	6397896	99833	72	1.56	30%	64.03	N.A.	2840000	43.1	99%
4	Mexico	748315	78078	604	10.43	20%	19.52	82.30%	27000	2.32	95%
5	UK	460178	42202	621	9.17	20%	23.01	70.50%	6600	0.31	75%
6	Italy	317409	35918	594	11.31	20%	8.15	50.00%	3500	0.38	N.A.
7	Peru	818297	32535	983	3.97	20%	9	89%	37000	7.07	80%
8	France	577505	32019	490	5.54	20%	14.1	50.00%	5300	0.43	N.A.
9	Spain	778607	31973	684	4.10	20%	10.21	51.40%	5500	0.34	N.A.
10	Iran	461044	26380	313	5.72	30%	19.67	N.A.	13000	2.13	99.50%
11	Colombia	835339	26196	513	3.13	20%	23.72	20%	15000	3.24	90%
12	Russia	1194643	21077	144	1.76	10%	27.61	N.A.	115000	10.77	99%
13	Argentina	765002	20288	448	2.65	10%	48.73	N.A.	11000	1.32	95%
14	South Africa	676084	16866	283	2.49	10%	86.33	N.A.	454000	59.33	90.50%
15	Chile	464750	12822	669	2.75	10%	16.25	75%	3000	2.11	97.80%
16	Ecuador	138584	11433	646	8.24	20%	33.85	N.A.	8400	4.19	N.A.
17	Indonesia	295599	10972	40	3.71	30%	25.03	N.A.	1020000	56.74	92.20%
18	Belgium	121059	10023	864	8.27	20%	24.22	60%	1100	0.33	N.A.
19	Germany	295530	9586	114	3.24	20%	10.86	34.80%	6500	0.21	N.A.
20	Canada	160535	9319	246	5.80	10%	9.34	60%	1800	0.18	N.A.
21	Iraq	367474	9231	228	2.51	30%	18.82	N.A.	16000	6.56	99%
22	Turkey	320070	8262	98	2.58	30%	14.43	5.90%	14000	0.97	94%
23	Bolivia	135716	8001	683	5.89	20%	61.01	30%	13000	9.91	99%
24	Pakistan	313431	6499	29	2.07	30%	39.45	N.A.	510000	34.21	95%
25	Netherlands	124097	6419	374	5.17	20%	10.66	80%	980	0.11	N.A.
26	Egypt	103317	5946	58	5.75	20%	29.13	N.A.	13000	0.33	99%
27	Sweden	93615	5893	583	6.29	20%	15.57	55%	900	0.12	26.40%
28	Philippines	316678	5616	51	1.77	30%	126.54	N.A.	324000	39.06	99%
29	Bangladesh	366383	5305	32	1.44	30%	21.99	N.A.	362000	61.12	99%
30	Romania	129658	4862	253	3.74	10%	22.24	15%	16000	3.68	90%
31	Saudi Arabia	335097	4794	137	1.43	30%	43.74	N.A.	3800	5.21	98%
32	China	85424	4634	3	5.42	20%	15	7%	918000	2.11	99%
33	Ukraine	217661	4261	98	1.95	10%	9.25	N.A.	41000	7.26	45%
34	Guatemala	92409	3261	181	3.52	20%	58.32	N.A.	4200	2.8	99%
35	Poland	95773	2570	68	2.68	10%	17.56	13.40%	7200	0.92	93.70%
36	Panama	113342	2387	551	2.10	20%	21.08	65%	2000	6.42	99%
37	Honduras	77598	2380	239	3.06	20%	10.72	70%	3500	5.89	99%
38	Morocco	126044	2229	60	1.76	20%	26.02	N.A.	37000	11.6	99%
39	Dominican R.	112728	2108	194	1.86	20%	22.77	N.A.	6300	5.76	99%
40	Switzerland	53832	2074	239	3.85	20%	7.4	45%	610	0.1	N.A.
41	Portugal	76396	1977	194	2.58	20%	23.07	52%	2400	1	99%
42	Ireland	36597	1806	365	4.93	20%	13.04	60%	340	0.3	94%
43	Algeria	51690	1741	40	3.36	20%	23.53	N.A.	30000	9.41	99%
44	Kazakhstan	108044	1725	92	1.59	30%	17.3	N.A.	16000	2.41	99%
45	Israel	256071	1629	177	0.63	30%	17.38	59.80%	320	0.13	90%
46	Japan	83563	1571	12	1.88	20%	24.28	51%	21000	0.6	98.10%
47	Afghanistan	39290	1458	37	3.71	30%	50.61	N.A.	61000	77.66	46%
48	Moldova	54064	1336	331	2.47	20%	23.29	N.A.	6200	5.55	99%
49	Ethiopia	76098	1205	10	1.58	20%	86.94	N.A.	191000	43.14	69%
50	Nigeria	59001	1112	5	1.88	20%	246.59	N.A.	586000	128.71	85%
51	Kyrgyzstan	47056	1065	163	2.26	30%	14.5	N.A.	8500	8.4	99%

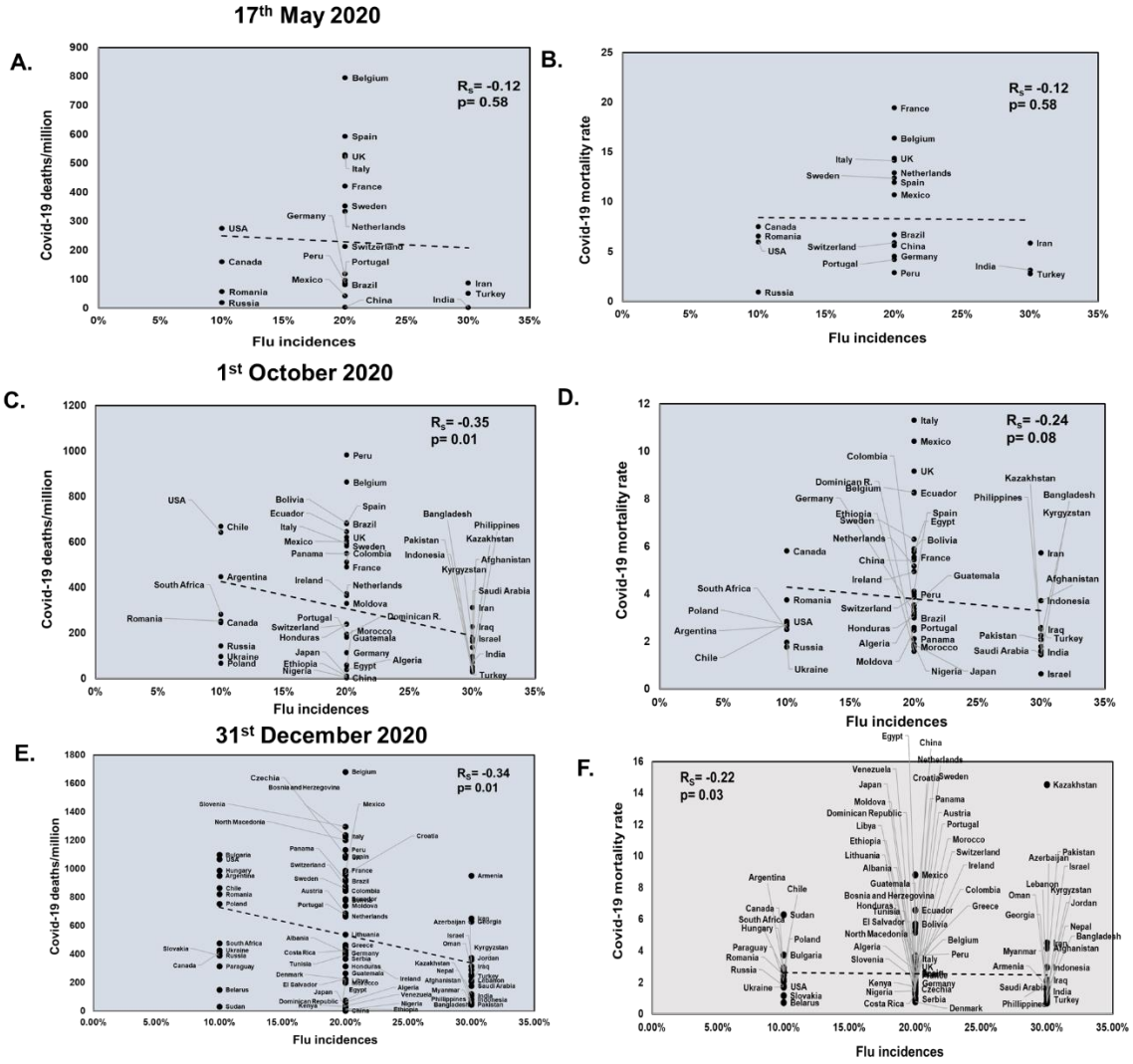
Supplementary Table 2: Countries were arranged based on highest to lowest deaths due to COVID-19 infections and compared with respect to BCG vaccination coverage, T.B. incidences, T.B. deaths/100,000, Flu vaccination coverage, Flu incidences and Flu deaths/100,000. Data for COVID-19 incidences and death has been shown as of 1st October 2020.

S.No.	Countries	Covid-19 incidences	Covid-19 deaths	Covid-19 deaths/ million	Mortality rate	Flu incidences	Flu deaths/100000	Flu Vac coverage	T.B.	T.B. deaths/100000	BCG coverage
1	USA	20445654	354215	1067	1.73	10%	15	69.10%	10000	0.12	N.A.
2	Brazil	7675973	194976	914	2.54	20%	42.96	71.80%	84000	2.74	86.90%
3	India	10286709	149018	107	1.44	30%	64.03	N.A.	2840000	43.1	99%
4	Mexico	1426094	125807	971	8.82	20%	19.52	82.30%	27000	2.32	95%
5	Italy	2107166	74159	1227	3.51	20%	8.15	50.00%	3500	0.38	N.A.
6	UK	2448780	73512	1080	3.00	20%	23.01	70.50%	6600	0.31	75%
7	France	2620425	64632	989	2.46	20%	14.1	50.00%	5300	0.43	N.A.
8	Russia	3159297	57019	391	1.80	10%	27.61	N.A.	115000	10.77	99%
9	Iran	1225142	55223	653	4.50	30%	19.67	N.A.	13000	2.13	99.50%
10	Spain	1936718	50837	1087	2.62	20%	10.21	51.40%	5500	0.34	N.A.
11	Argentina	1625514	43245	952	2.66	10%	48.73	N.A.	11000	1.32	95%
12	Colombia	1642775	43213	845	2.63	20%	23.72	20%	15000	3.24	90%
13	Peru	1015137	37680	1135	3.71	20%	9	89%	37000	7.07	80%
14	Germany	1745518	34182	407	1.95	20%	10.86	34.80%	6500	0.21	N.A.
15	Poland	1294878	28554	755	2.20	10%	17.56	13.40%	7200	0.92	93.70%
16	South Africa	1057161	28469	477	2.69	10%	86.33	N.A.	454000	59.33	90.50%
17	Indonesia	743198	22138	81	2.97	30%	25.03	N.A.	1020000	56.74	92.20%
18	Turkey	2208652	20881	246	0.94	30%	14.43	5.90%	14000	0.97	94%
19	Belgium	646496	19528	1681	3.02	20%	24.22	60%	1100	0.33	N.A.
20	Ukraine	1064479	18680	428	1.75	10%	9.25	N.A.	41000	7.26	45%
21	Chile	608973	16608	865	2.72	10%	16.25	75%	3000	2.11	97.80%
22	Romania	632263	15767	822	2.49	10%	22.24	15%	16000	3.68	90%
23	Canada	581395	15606	412	2.68	10%	9.34	60%	1800	0.18	N.A.
24	Ecuador	212512	14034	789	6.60	20%	33.85	N.A.	8400	4.19	N.A.
25	Iraq	595291	12813	315	2.15	30%	18.82	N.A.	16000	6.56	99%
26	Czechia	732022	11711	1093	1.59	20%	15.38	20%	550	0.31	80%
27	Netherlands	796981	11432	666	1.43	20%	10.66	80%	980	0.11	N.A.
28	Pakistan	482178	10176	46	2.11	30%	39.45	N.A.	510000	34.21	95%
29	Hungary	322514	9537	988	2.95	10%	6.22	30%	920	0.42	99%
30	Phillippines	474064	9244	84	1.94	30%	126.54	N.A.	324000	39.06	99%
31	Bolivia	160124	9165	780	5.72	20%	61.01	30%	13000	9.91	99%
32	Sweden	437379	8727	861	1.99	20%	15.57	55%	900	0.12	26.40%
33	Switzerland	452296	7645	880	1.69	20%	7.4	45%	610	0.1	N.A.
34	Egypt	138062	7631	74	5.52	20%	29.13	N.A.	13000	0.33	99%
35	Bulgaria	202266	7576	1099	3.74	10%	12.22	N.A.	1700	1.11	96%
36	Bangladesh	513510	7559	46	1.47	30%	21.99	N.A.	362000	61.12	99%
37	Morocco	439193	7388	199	1.68	20%	26.02	N.A.	37000	11.6	99%
38	Portugal	413678	6906	678	1.66	20%	23.07	52%	2400	1	99%
39	Saudi Arabia	362741	6223	177	1.71	30%	43.74	N.A.	3800	5.21	98%
40	Austria	360815	6222	689	1.72	20%	4.56	20%	650	0.36	99%
41	Greece	138850	4838	465	3.48	20%	16.53	55%	490	0.3	31%
42	Guatemala	138012	4813	266	3.48	20%	58.32	N.A.	4200	2.8	99%
43	Tunisia	139140	4676	394	3.36	20%	25.07	N.A.	4200	3.26	92%
44	China	89071	4634	3	5.20	20%	15	7%	918000	2.11	99%
45	Bosnia and Herzegovina	110985	4050	1238	3.64	20%	5.7	N.A.	1400	2.09	95%
46	Panama	246790	4022	925	1.62	20%	21.08	65%	2000	6.42	99%
47	Croatia	210837	3920	958	1.85	20%	5.92	30%	560	0.67	98%
48	Jordan	294494	3834	374	1.30	30%	21.86	N.A.	530	0.3	86%
49	Japan	230304	3414	27	1.48	20%	24.28	51%	21000	0.6	98.10%
50	Israel	423262	3325	362	0.78	30%	17.38	59.80%	320	0.13	90%
51	Serbia	337923	3211	368	0.95	20%	8.37	10%	1900	0.56	98%
52	Honduras	122763	3141	315	2.55	20%	10.72	70%	3500	5.89	99%
53	Moldova	144818	2985	741	2.06	20%	23.29	N.A.	6200	5.55	99%
54	Armenia	159738	2828	953	1.77	30%	8.77	N.A.	41	1.77	99%
55	Algeria	99610	2756	62	2.76	20%	23.53	N.A.	30000	9.41	99%
56	Slovenia	122152	2697	1297	2.20	20%	12.73	12%	7	0.37	96%
57	Myanmar	124630	2682	49	2.15	30%	46.97	N.A.	197000	58.72	91%
58	Azerbaijan	218700	2641	259	1.20	30%	15.29	N.A.	6800	6.16	96%
59	Georgia	227420	2505	629	1.10	30%	9.43	N.A.	4000	3.92	96%
60	North Macedonia	83329	2503	1201	3.00	20%	5.35	8%	270	0.83	93%
61	Dominican Republic	170785	2414	221	1.41	20%	22.77	N.A.	6300	5.76	99%
62	Kazakhstan	15547	2262	120	14.54	30%	17.3	N.A.	16000	2.41	99%
63	Paraguay	107932	2262	315	2.09	10%	25.28	85%	2700	4.84	87%
64	Ireland	91779	2237	451	2.43	20%	13.04	60%	340	0.3	94%
65	Afghanistan	52513	2201	56	4.19	30%	50.61	N.A.	61000	77.66	46%
66	Costa Rica	169321	2185	427	1.29	20%	13.19	N.A.	530	1.1	88%
67	Slovakia	179543	2138	392	1.19	10%	20.59	12%	350	0.41	90%
68	Ethiopia	124264	1923	17	1.54	20%	86.94	N.A.	191000	43.14	69%
69	Nepal	260593	1856	63	0.71	30%	47.47	N.A.	44000	31.85	96%
70	Kenya	96458	1670	31	1.73	20%	60.24	N.A.	107000	95.98	95%
71	Oman	128867	1499	290	1.16	30%	24.25	N.A.	380	1.28	99%
72	Libya	100277	1478	214	1.47	20%	26.9	N.A.	2500	15.4	74%
73	Lebanon	181503	1468	216	0.80	30%	10.13	N.A.	750	1	N.A.
74	Sudan	23316	1468	33	6.29	10%	52.66	N.A.	35000	25.83	92%
75	Lithuania	140579	1458	539	1.03	20%	11.95	15%	1600	4.39	97%
76	Belarus	194284	1424	151	0.73	10%	6.41	N.A.	5200	1.79	97%
77	Palestine	138004	1400	271	1.01	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
78	Kyrgyzstan	81034	1355	206	1.67	30%	14.5	N.A.	8500	8.4	99%
79	El Salvador	45960	1336	224	2.90	20%	33.17	N.A.	2700	1.25	78%
80	Denmark	163479	1298	224	0.79	20%	13.58	42%	340	0.15	80%
81	Nigeria	87607	1289	6	1.47	20%	246.59	N.A.	586000	128.71	85%
82	Albania	58316	1181	411	2.02	20%	11.23	N.A.	550	0.2	99%
83	Venezuela	113558	1028	36	0.90	20%	24.45	N.A.	8900	3.02	91%

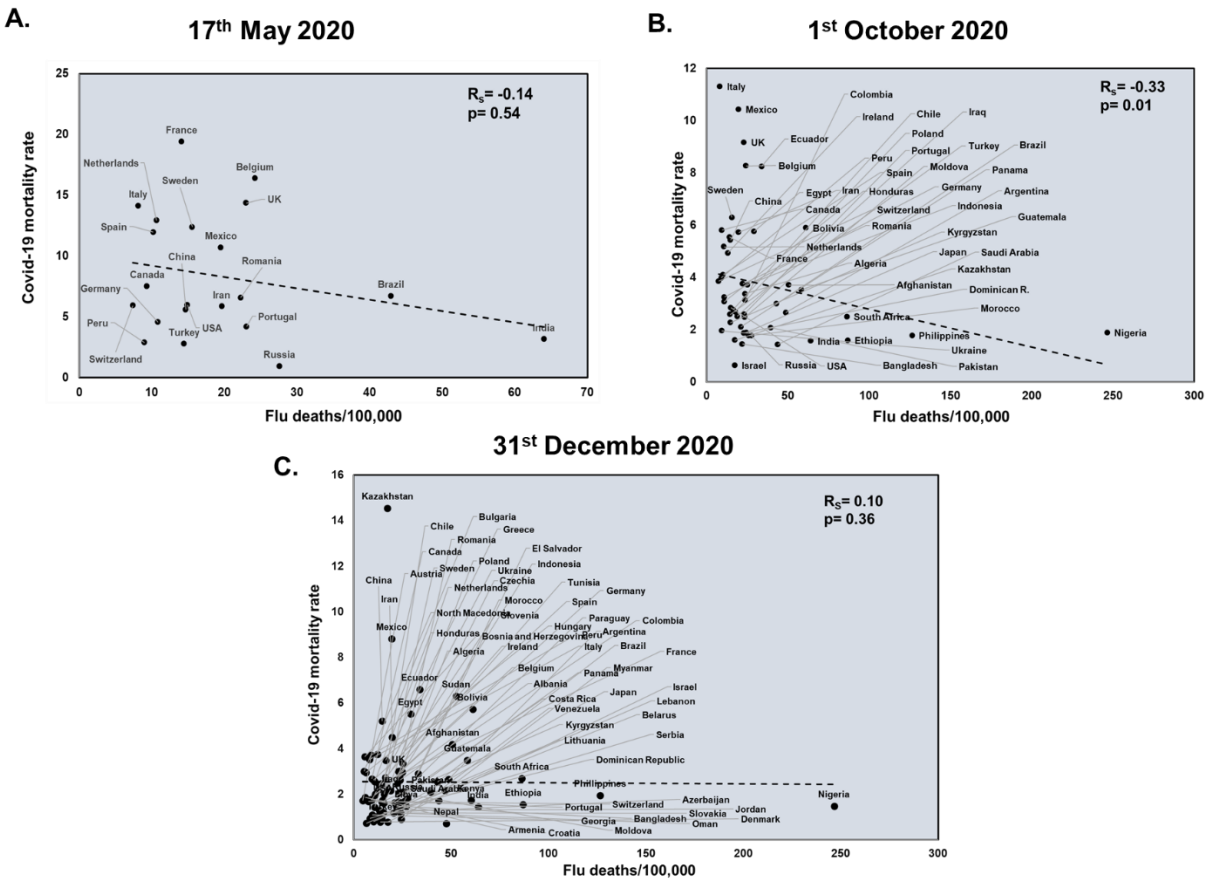
Supplementary Table 3: Countries were arranged based on highest to lowest deaths due to COVID-19 infections and compared with respect to BCG vaccination coverage, T.B. incidences, T.B. deaths/100,000, Flu vaccination coverage, Flu incidences and Flu deaths/100,000. Data for COVID-19 incidences and death has been shown as of 31st December 2020



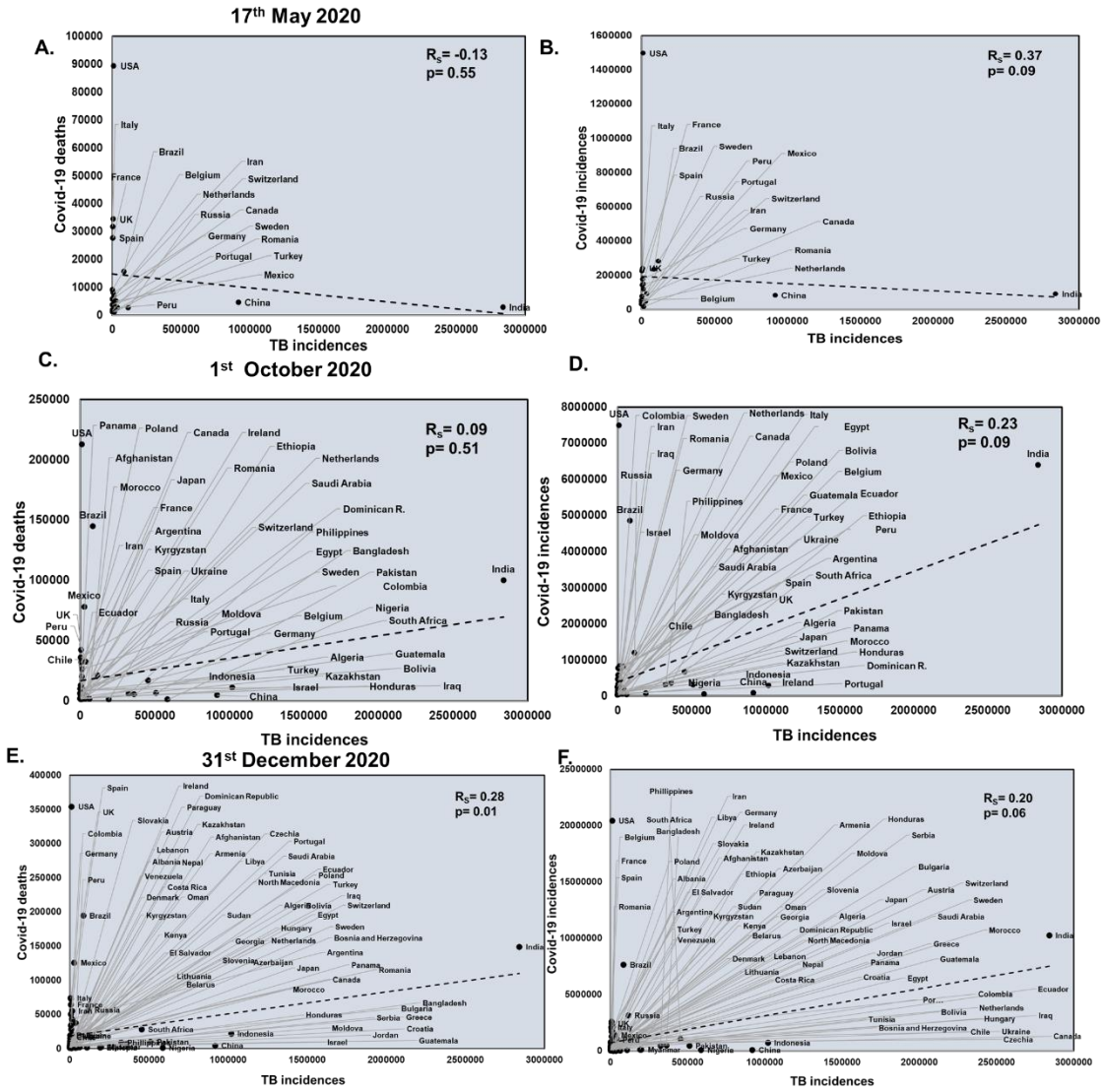
Supplementary figure 1: Flu incidences do not correlate with total COVID-19 deaths and incidences: Correlation of flu incidences was performed for countries at three different time points: 17th May 2020 (**A and B**), 1st October 2020 (**C and D**) and 31st December 2020 (**E and F**) with respect to COVID-19 deaths and incidences. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



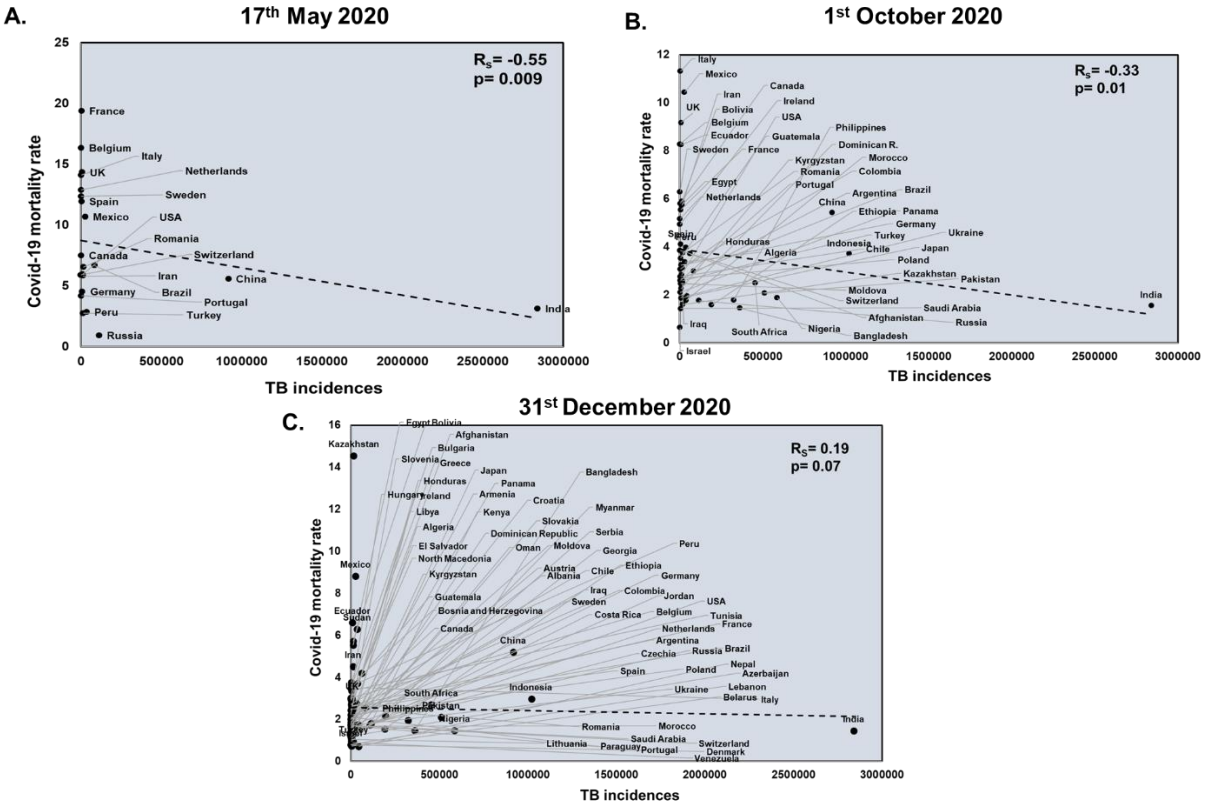
Supplementary figure 2: COVID-19 deaths/million and mortality rate correlates with Flu incidences only in the 1st October and 31st December 2020 datasets: Correlation of Flu incidences was performed of countries for three different time points: 17th May 2020 (**A and B**) and 1st October 2020 (**C and D**) and 31st December 2020 (**E and F**) with respect to COVID-19 deaths/million and mortality rate. Each graph has been correlated and the Spearman's correlation coefficient value ($\mathbf{R_s}$) has been calculated and the respective **p** values have also been estimated. Correlation has been considered statistically significant if $p<0.1$.



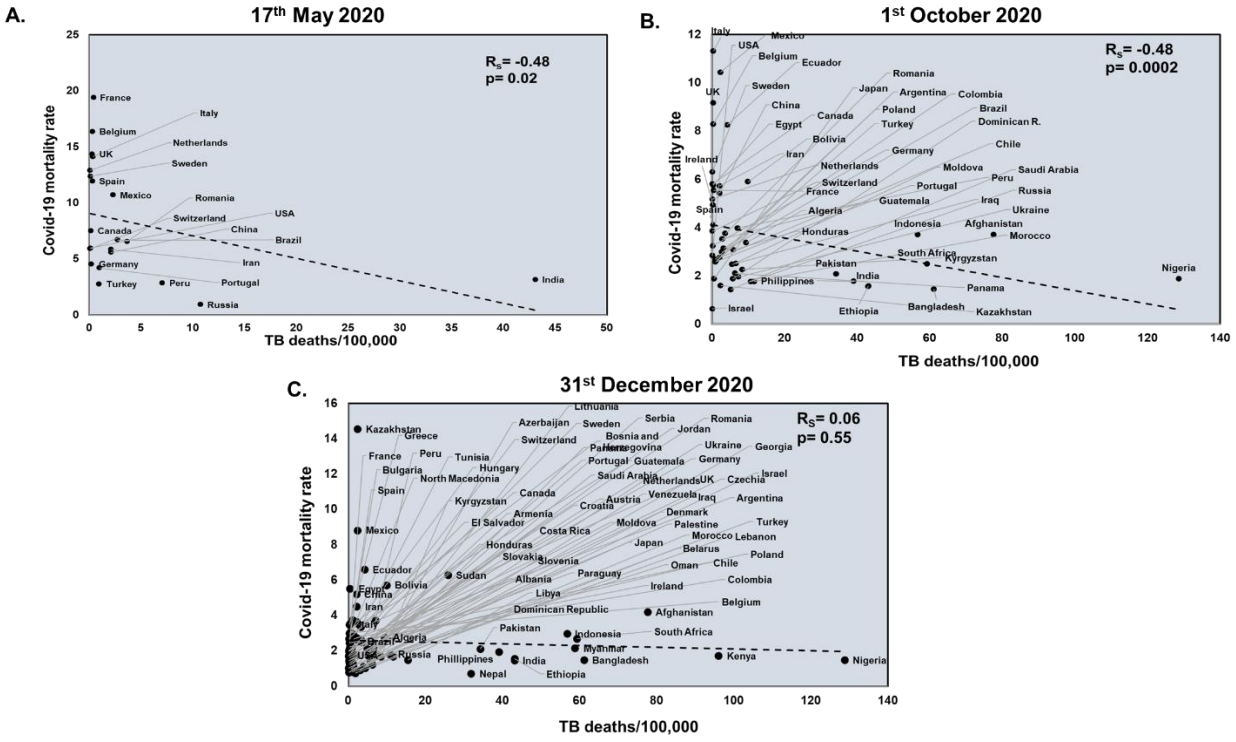
Supplementary figure 3: Flu deaths correlates with COVID-19 mortality rate only in the 1st October 2020 dataset: Correlation of flu deaths was performed for countries at three different time points: 17th May 2020 (**A**), 1st October 2020 (**B**) and 31st December 2020 (**C**) with respect to COVID-19 mortality rate. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



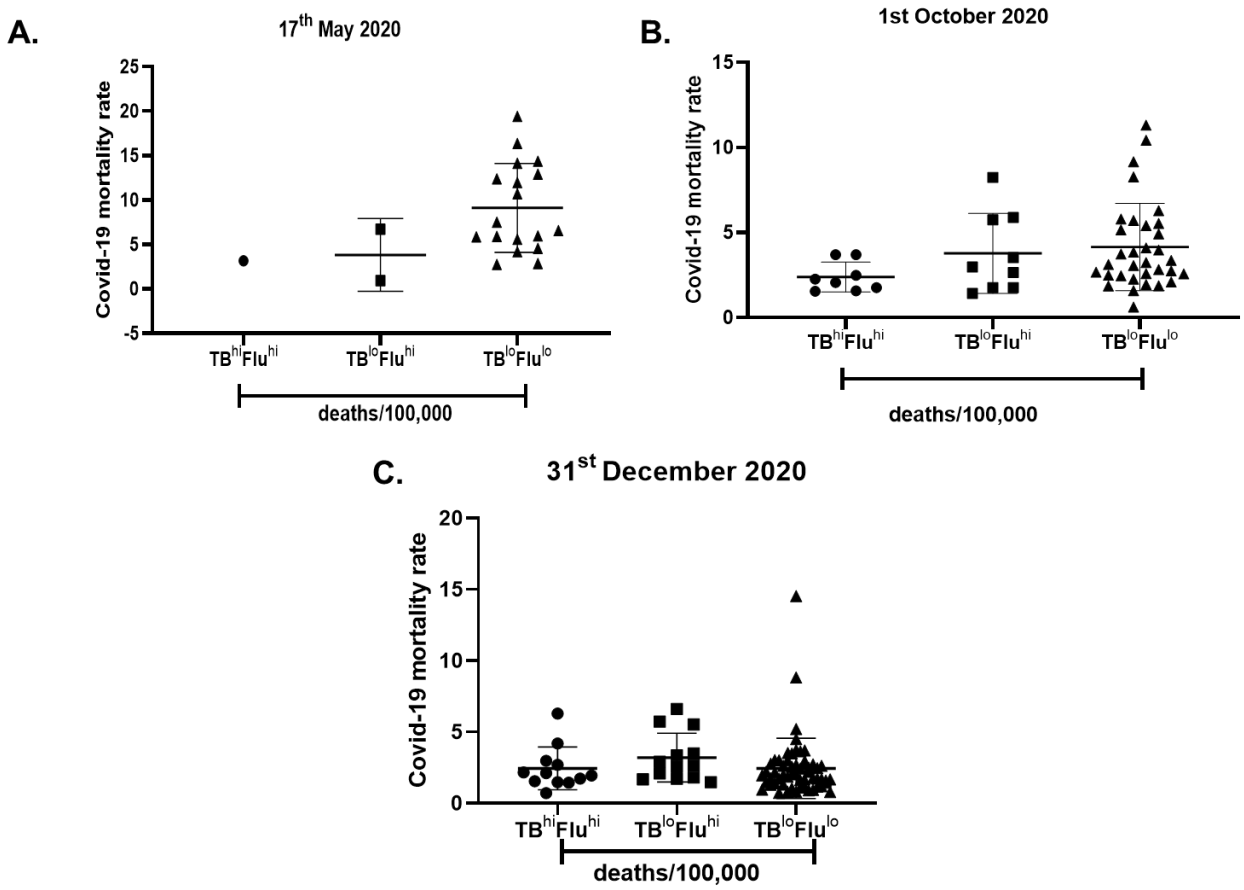
Supplementary figure 4: TB incidences positively correlates with both total COVID-19 deaths and incidences only in the 31st December 2020 dataset: TB incidences were correlated at three time points: 17th May 2020 (**A and B**), 1st October 2020 (**C and D**)and 31st December 2020 (**E and F**) with respect to COVID-19 deaths and incidences. Spearman's correlation coefficient value (**R_s**) and the respective **p** values have been calculated for each graph. Correlation has been considered statistically significant if $p<0.1$.



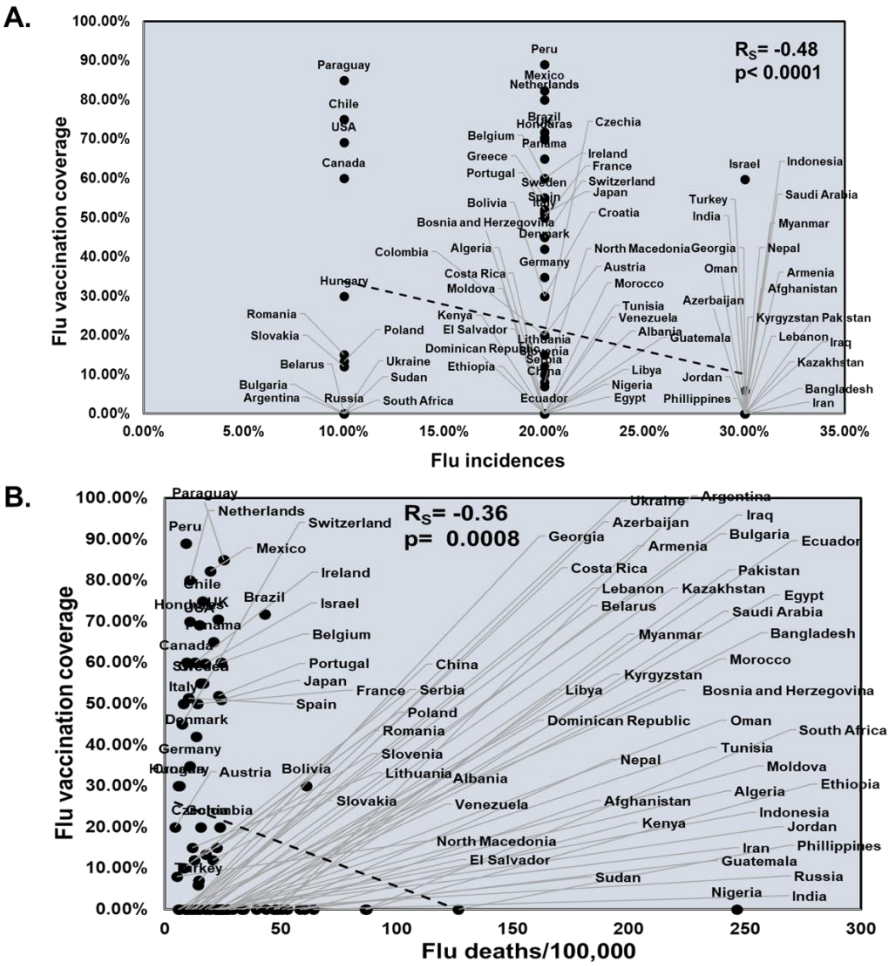
Supplementary figure 5: TB incidences negatively correlates with COVID-19 mortality rate for the 17th May and 1st October 2020 datasets: Correlation of TB incidences was performed for countries at three different time points: 17th May 2020 (**A**), 1st October 2020 (**B**) and 31st December 2020 (**C**) with respect to COVID-19 mortality rate. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



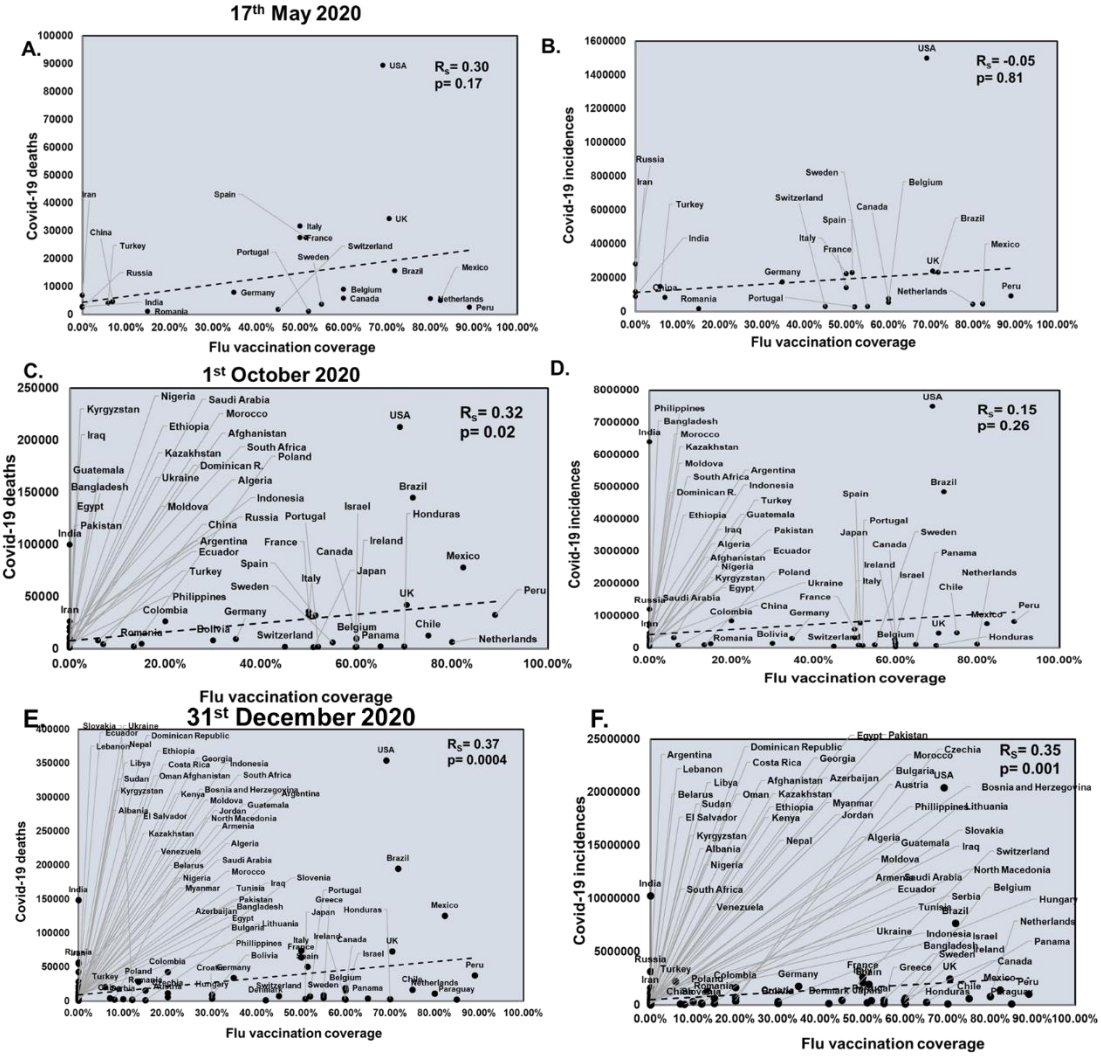
Supplementary figure 6: TB deaths correlates with COVID-19 mortality rate for both the 17th May and 1st October 2020 data sets: TB deaths correlation was performed for countries at two different time points: 17th May 2020 (**A**) and 1st October 2020 (**B**) and 31st December 2020 (**C**) with respect to COVID-19 mortality rate. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



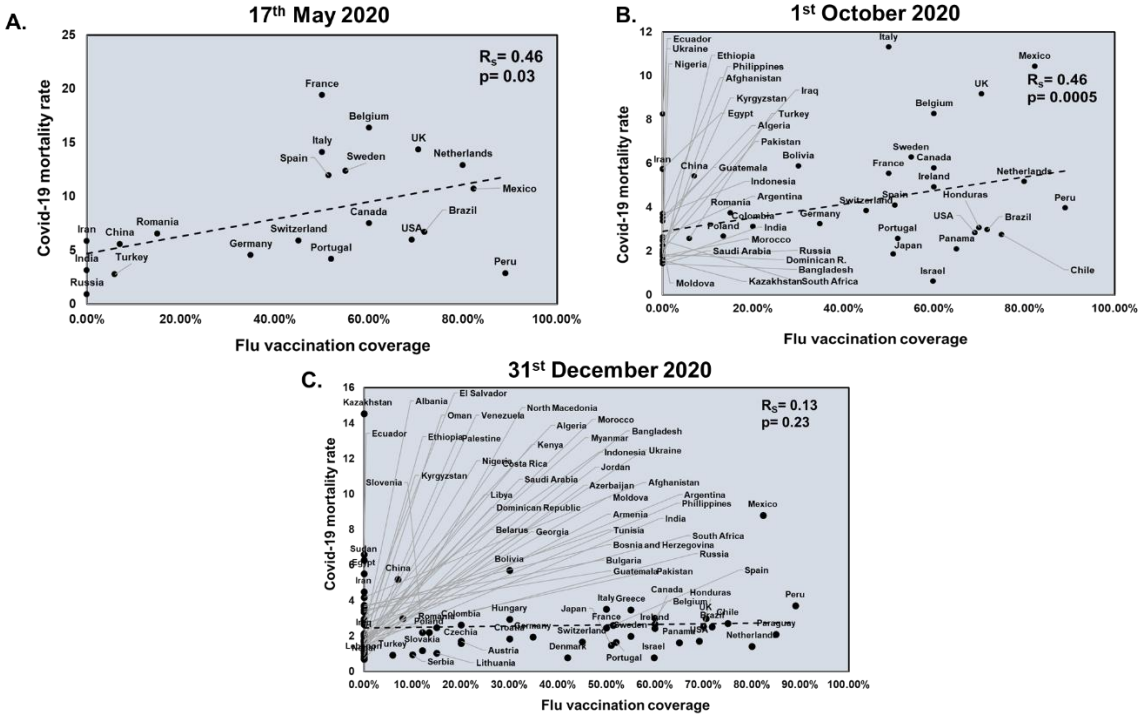
Supplementary figure 7: COVID-19 mortality rate remains unaffected by the extent of TB and Flu deaths/100,000 in different countries: Countries were grouped based on the extent of Flu and TB deaths/100,000 and analyzed for COVID-19 mortality rate. The countries were divided into three groups by keeping a cutoff in which countries having >25 deaths/100,000 were considered as high deaths and denoted as 'hi' whereas countries having <25 deaths/100,000 were denoted as 'lo'. The three groups were analyzed for mean differences at three different time points: **A.** 17th May 2020, **B.** 1st October 2020 and **C.** 31st December 2020. One-way ANOVA was used to calculate the statistical significance.



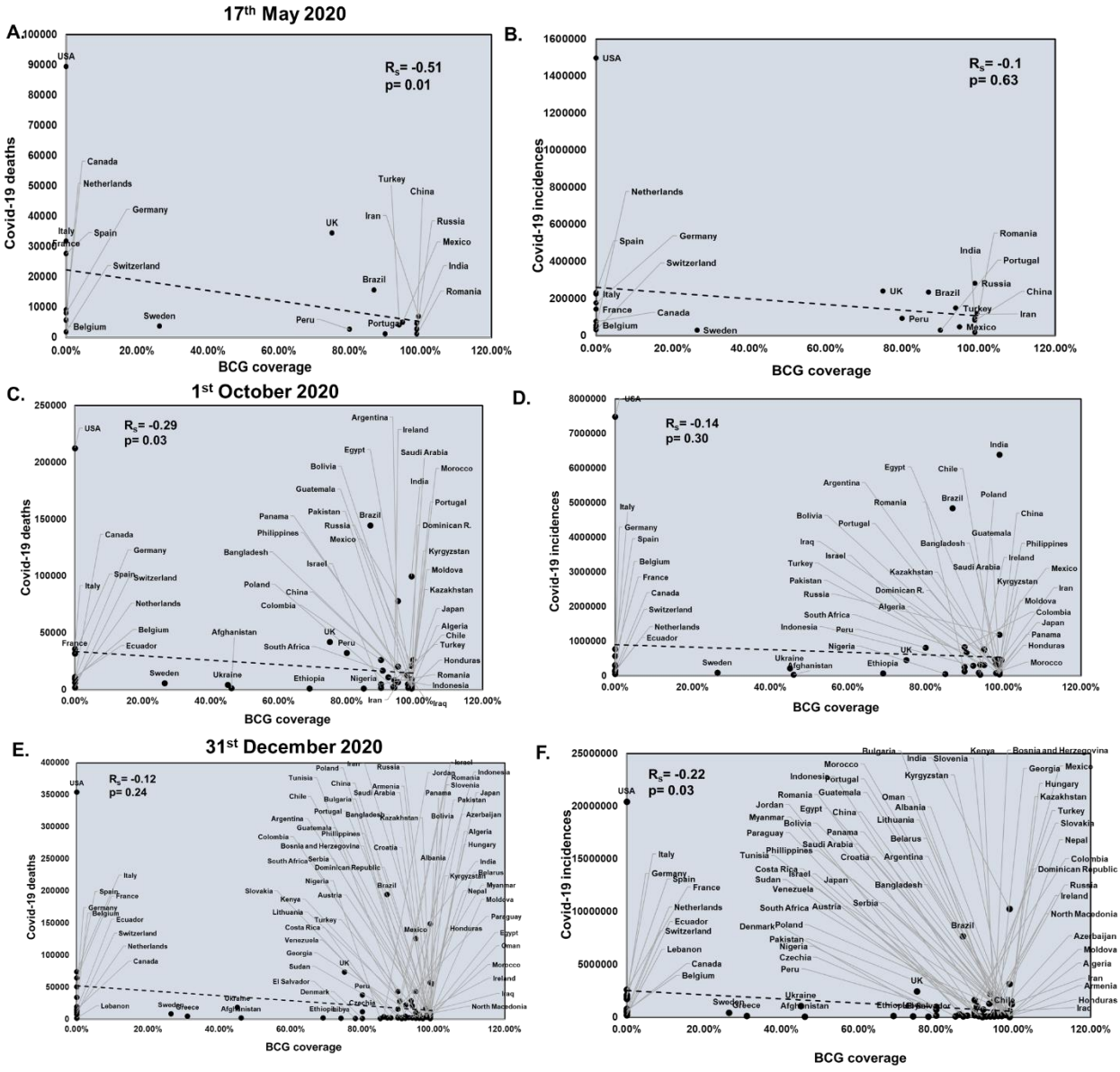
Supplementary figure 8: Flu incidences and deaths/100,000 negatively correlates with Flu vaccination coverage: Correlation of flu vaccination was performed for countries with respect to: Flu incidences (**A**) and Flu deaths (**B**). Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



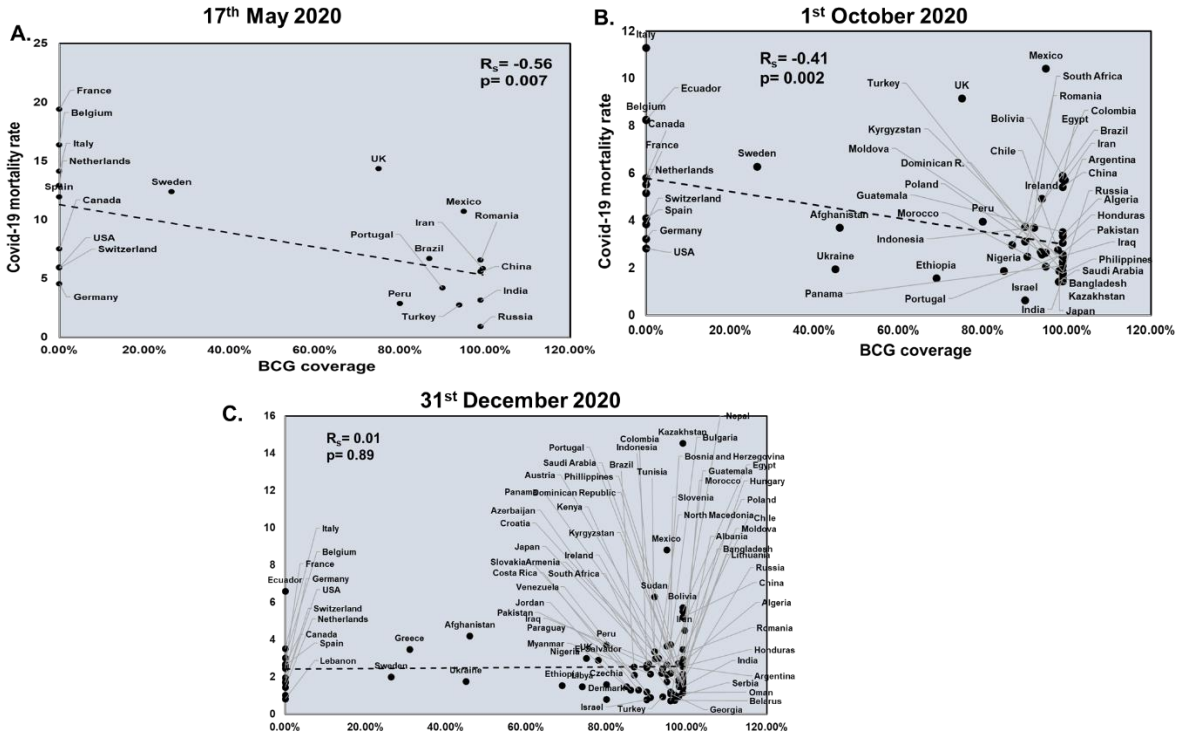
Supplementary figure 9: Flu vaccination positively correlates with total COVID-19 deaths only in the 1st October and 31st December 2020 datasets: Flu vaccination coverage correlation was performed for countries at three time points: 17th May 2020 (**A and B**), 1st October 2020 (**C and D**) and 31st December 2020 (**E and F**) with respect to COVID-19 deaths and incidences. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



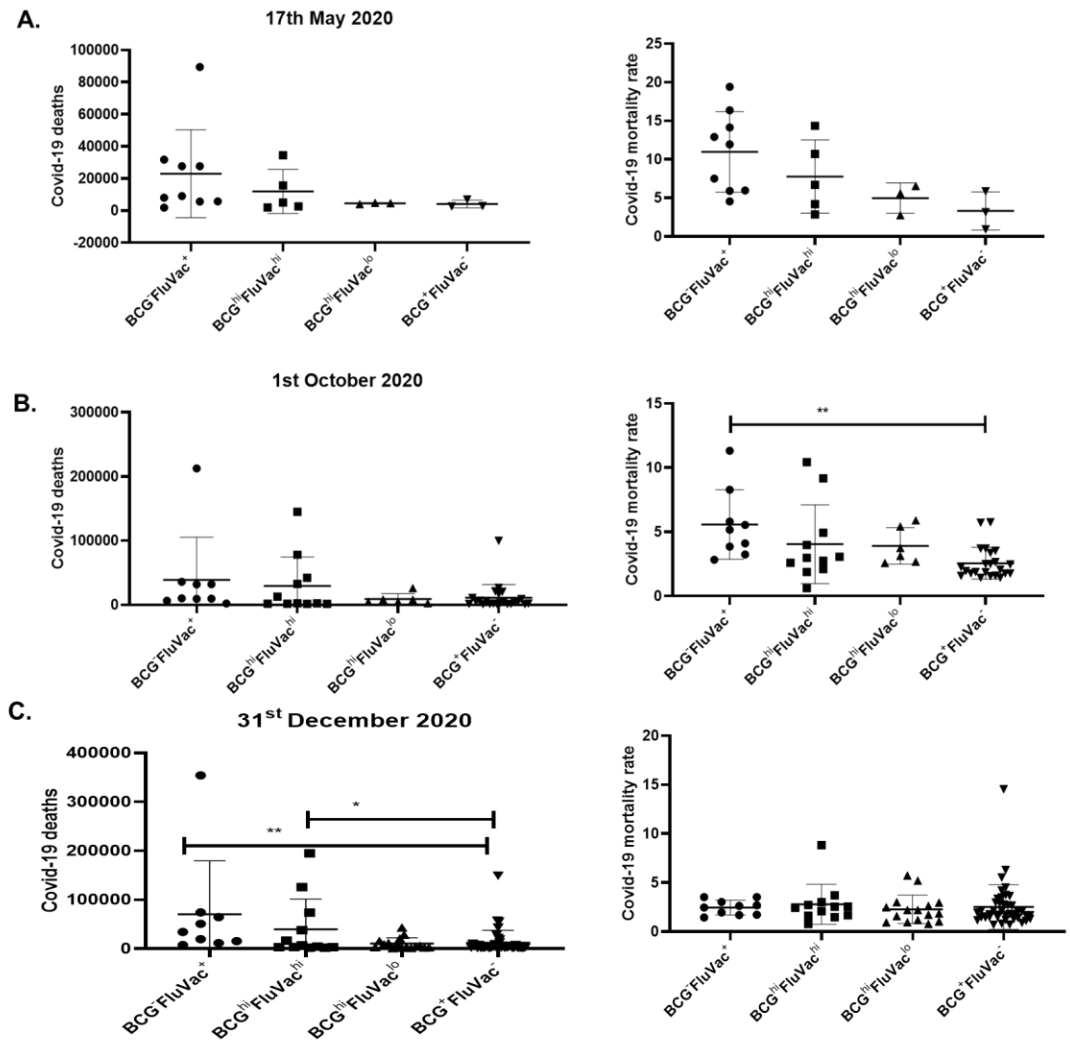
Supplementary figure 10: Flu vaccination coverage positively correlates with COVID-19 mortality rate for both the 17th May and 1st October 2020 data sets: Correlation of flu vaccination was performed for countries at three different time points: 17th May 2020 (**A**), 1st October 2020 (**B**) and 31st December 2020 (**C**) with respect to COVID-19 mortality rate. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



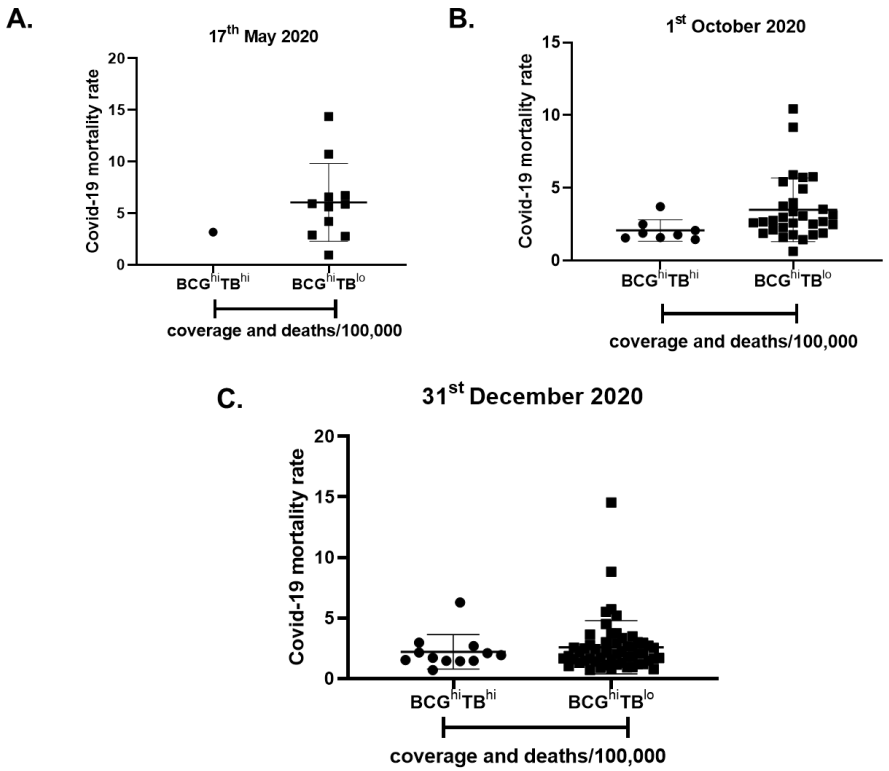
Supplementary figure 11: BCG coverage negatively correlates with total COVID-19 deaths specifically in the 17th May and 1st October 2020 datasets: Correlation of BCG coverage of different countries was performed at three time points: 17th May 2020 (**A and B**), 1st October 2020 (**C and D**) and 31st December 2020 (**E and F**) with respect to COVID-19 deaths and incidences. Spearman's correlation coefficient value (**R_s**) and the respective **p** values have been calculated for each graph. Correlation has been considered statistically significant if $p<0.1$.



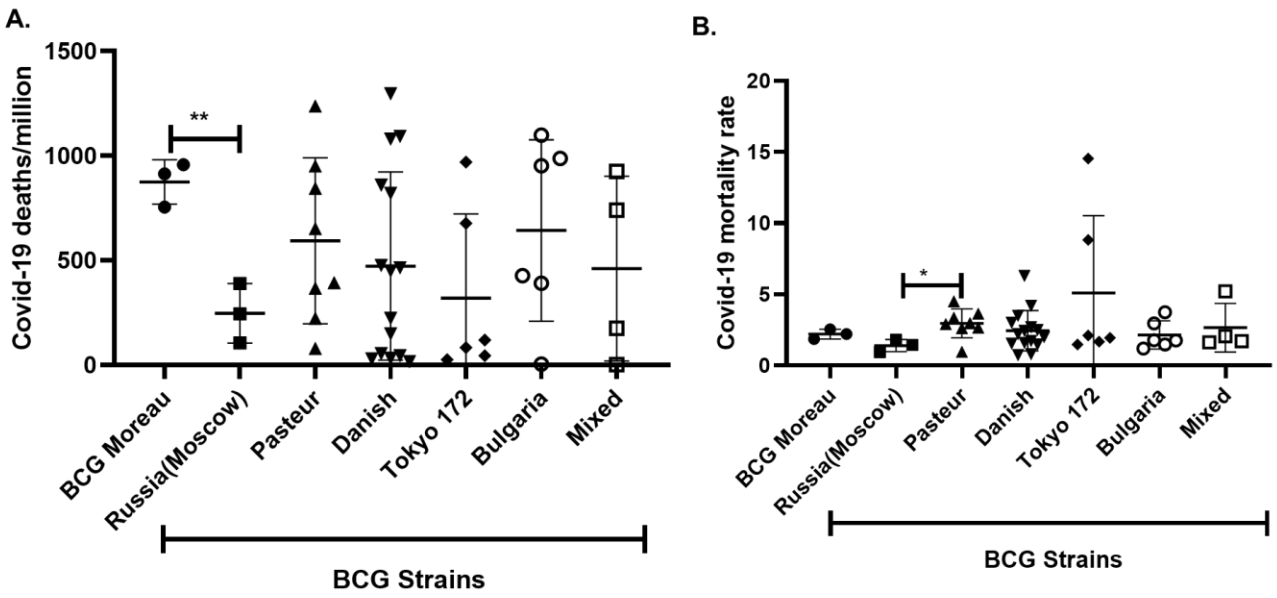
Supplementary figure 12: BCG coverage negatively correlates with COVID-19 mortality rate for only the 17th May and 1st October 2020 datasets: Correlation of BCG was performed for countries at three different time points: 17th May 2020 (**A**), 1st October 2020 (**B**) and 31st December 2020(**C**) with respect to COVID-19 mortality rate. Spearman's correlation coefficient value ($\mathbf{R_s}$) and the respective **p** values have been mentioned for each graph. Correlation has been considered statistically significant if $p<0.1$.



Supplementary figure 13: COVID-19 deaths and mortality rate is the lowest in BCG^{+}FluVac^{-} countries at some time points: Countries were grouped based on the coverage of BCG and flu vaccination and analyzed for COVID-19 deaths and COVID-19 mortality rate. These vast majority of countries were divided into four groups firstly based on the availability or non-availability of BCG or flu vaccination, designated with '+' and '-' respectively. Next, the groups were further classified based on the extent of coverage of a particular vaccination. Countries with >50% coverage of a particular vaccination were considered having high vaccination and denoted with 'hi' whereas countries with <50% coverage were considered having low vaccination coverage and thus denoted 'lo'.The four groups were analyzed for mean differences at three different time points: **A.** 17th May 2020, **B.**1st October 2020 and **C.** 31st December 2020. One-way ANOVA was used to calculate the statistical significance, **p<0.01



Supplementary figure 14: COVID-19 mortality rate is not affected by BCG coverage and TB deaths: Countries with BCG coverage and TB deaths were further classified based on the extent of vaccine coverage and deaths/100,000. The two major groups were: $BCG^{hi}TB^{hi}$ and $BCG^{hi}TB^{lo}$. The data was plotted based on COVID-19 mortality rate for **A.** 17th May 2020, **B.** 1st October 2020 and **C.** 31st December 2020. Unpaired t test was used to calculate statistical significance.



Supplementary figure 15: Countries which use the BCG Russian (Moscow) strain have one of the lowest Covid-19 deaths: Countries were segregated based on the different types of BCG strains used and compared with respect to **A.** Covid-19 deaths/million and **B.** Covid-19 mortality rate. One-way Anova was used to calculate statistical significance