Figure S1. Epidemiological analyses revealed comparatively low mortality for COVID-19 in high-income countries with BCG vaccination policies. (**A**) Incidence rates and (**B**) Mortality rates of reported COVID-19 cases by September 12th, 2020 among high-income countries, whose claimed healthcare data on the BCG World Atlas were considered reflective of the larger population, was summarized.
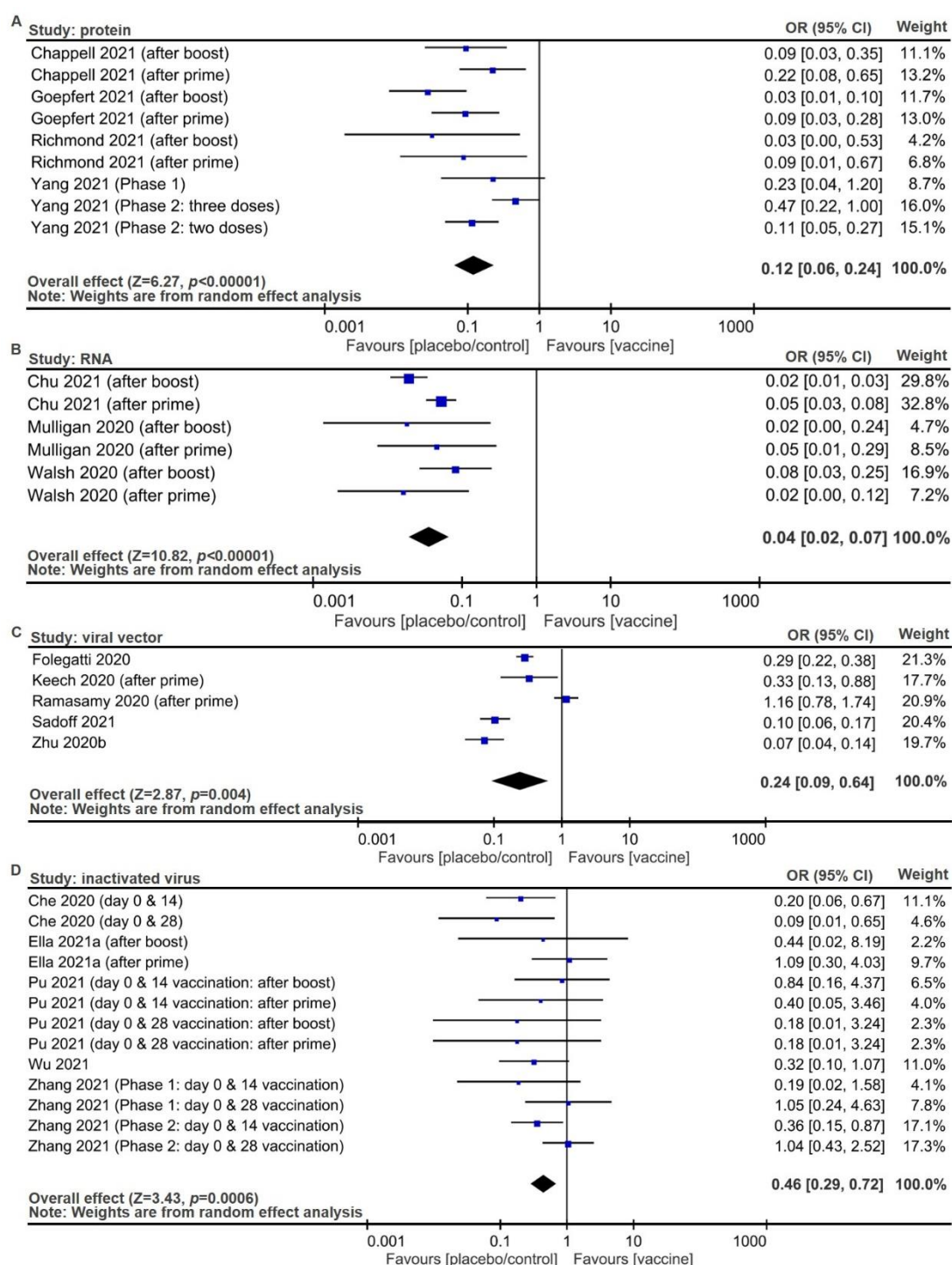
A Study: protein

Study	OR (95% CI)	Weight
Chappell 2021 (after boost)	0.09 [0.03, 0.35]	11.1%
Chappell 2021 (after prime)	0.22 [0.08, 0.65]	13.2%
Goepfert 2021 (after boost)	0.03 [0.01, 0.10]	11.7%
Goepfert 2021 (after prime)	0.09 [0.03, 0.28]	13.0%
Richmond 2021 (after boost)	0.03 [0.00, 0.53]	4.2%
Richmond 2021 (after prime)	0.09 [0.01, 0.67]	6.8%
Yang 2021 (Phase 1)	0.23 [0.04, 1.20]	8.7%
Yang 2021 (Phase 2: three doses)	0.47 [0.22, 1.00]	16.0%
Yang 2021 (Phase 2: two doses)	0.11 [0.05, 0.27]	15.1%
Overall effect (Z=6.27, $p<0.00001$)	0.12 [0.06, 0.24]	100.0%

Note: Weights are from random effect analysis

0.001　0.1　1　10　1000
Favours [placebo/control]　Favours [vaccine]

B Study: RNA

Study	OR (95% CI)	Weight
Chu 2021 (after boost)	0.02 [0.01, 0.03]	29.8%
Chu 2021 (after prime)	0.05 [0.03, 0.08]	32.8%
Mulligan 2020 (after boost)	0.02 [0.00, 0.24]	4.7%
Mulligan 2020 (after prime)	0.05 [0.01, 0.29]	8.5%
Walsh 2020 (after boost)	0.08 [0.03, 0.25]	16.9%
Walsh 2020 (after prime)	0.02 [0.00, 0.12]	7.2%
Overall effect (Z=10.82, $p<0.00001$)	0.04 [0.02, 0.07]	100.0%

Note: Weights are from random effect analysis

0.001　0.1　1　10　1000
Favours [placebo/control]　Favours [vaccine]

C Study: viral vector

Study	OR (95% CI)	Weight
Folegatti 2020	0.29 [0.22, 0.38]	21.3%
Keech 2020 (after prime)	0.33 [0.13, 0.88]	17.7%
Ramasamy 2020 (after prime)	1.16 [0.78, 1.74]	20.9%
Sadoff 2021	0.10 [0.06, 0.17]	20.4%
Zhu 2020b	0.07 [0.04, 0.14]	19.7%
Overall effect (Z=2.87, $p=0.004$)	0.24 [0.09, 0.64]	100.0%

Note: Weights are from random effect analysis

0.001　0.1　1　10　1000
Favours [placebo/control]　Favours [vaccine]

D Study: inactivated virus

Study	OR (95% CI)	Weight
Che 2020 (day 0 & 14)	0.20 [0.06, 0.67]	11.1%
Che 2020 (day 0 & 28)	0.09 [0.01, 0.65]	4.6%
Ella 2021a (after boost)	0.44 [0.02, 8.19]	2.2%
Ella 2021a (after prime)	1.09 [0.30, 4.03]	9.7%
Pu 2021 (day 0 & 14 vaccination: after boost)	0.84 [0.16, 4.37]	6.5%
Pu 2021 (day 0 & 14 vaccination: after prime)	0.40 [0.05, 3.46]	4.0%
Pu 2021 (day 0 & 28 vaccination: after boost)	0.18 [0.01, 3.24]	2.3%
Pu 2021 (day 0 & 28 vaccination: after prime)	0.18 [0.01, 3.24]	2.3%
Wu 2021	0.32 [0.10, 1.07]	11.0%
Zhang 2021 (Phase 1: day 0 & 14 vaccination)	0.19 [0.02, 1.58]	4.1%
Zhang 2021 (Phase 1: day 0 & 28 vaccination)	1.05 [0.24, 4.63]	7.8%
Zhang 2021 (Phase 2: day 0 & 14 vaccination)	0.36 [0.15, 0.87]	17.1%
Zhang 2021 (Phase 2: day 0 & 28 vaccination)	1.04 [0.43, 2.52]	17.3%
Overall effect (Z=3.43, $p=0.0006$)	0.46 [0.29, 0.72]	100.0%

Note: Weights are from random effect analysis

0.001　0.1　1　10　1000
Favours [placebo/control]　Favours [vaccine]

Figure S2. Forest plots and summary estimates for safety of vaccines, defined as the inverse of local adverse events (AEs). Numbers of total participants and vaccinated populations with AEs for (**A**) protein vaccines, (**B**) RNA vaccines, (**C**) viral vector vaccines, and (**D**) inactivated vaccines. Random effect model was used to derive pooled inverse odds ratios (ORs) with 95% Confidence Intervals (CIs).
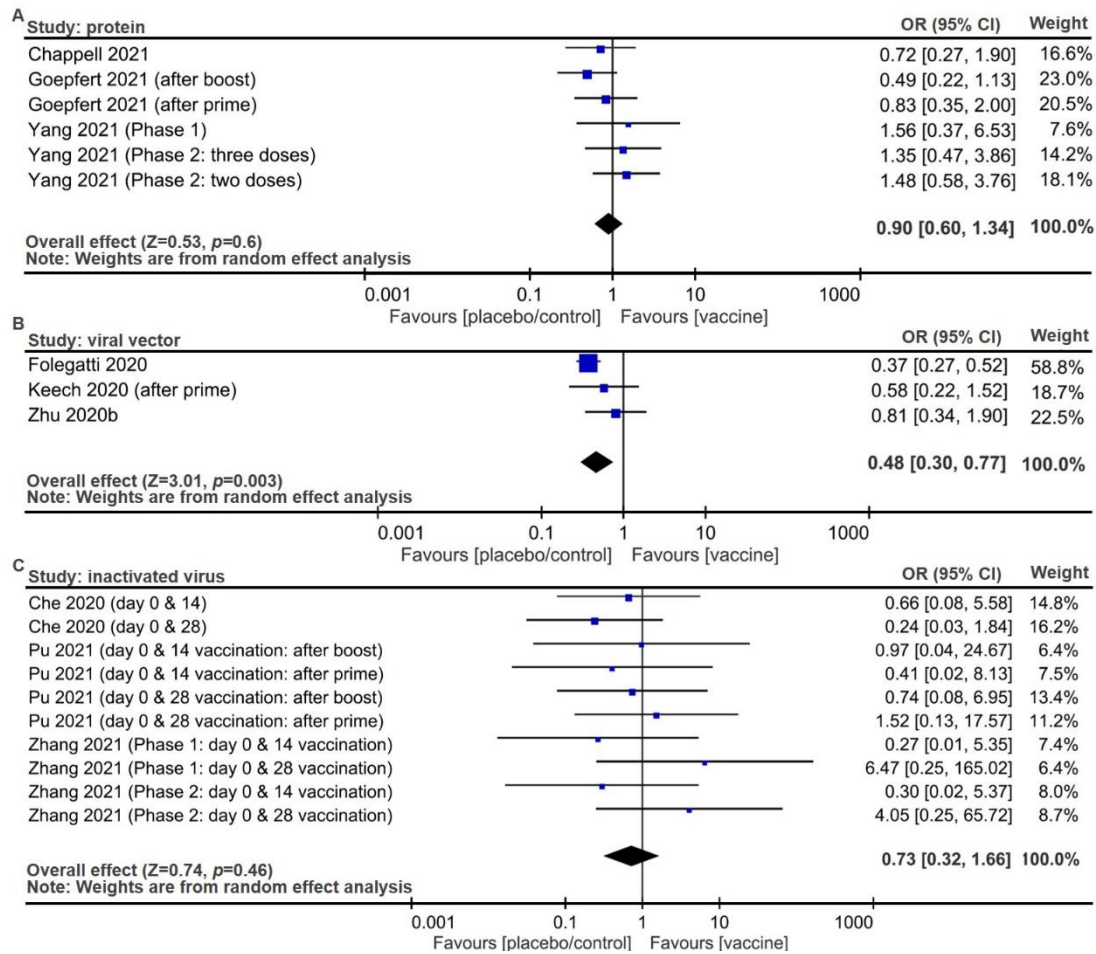
Figure S3. Forest plots and summary estimates for safety of vaccines, defined as the inverse of unsolicited AEs. Numbers of total participants and vaccinated populations with AEs for (**A**) protein vaccines, (**B**) viral vector vaccines, and (**C**) inactivated vaccines. Random effect model was used to derive the inverse ORs with 95% CIs.