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UNITED STATES DISTRICT COURT
 SOUTHERN DISTRICT OF CALIFORNIA

SOUTH BAY UNITED PENTECOSTAL
 CHURCH, a California non-profit
 corporation; and BISHOP ARTHUR
 HODGES III, an individual,

Plaintiffs,

v.

GAVIN NEWSOM, in his official capacity
 as the Governor of California, *et al.*,

Defendants.

Case No. 20-cv-865-BAS

**Declaration of Dr. Jayanta
 Bhattacharya in Support of
 Plaintiffs' Renewed Motion for a
 Temporary Restraining Order /
 Preliminary Injunction**

Judge: Hon. Cynthia Bashant

1 I, Dr. Jayanta Bhattacharya, declare:

2 1. I am a resident of Los Altos, California. I am 52 years old and am
3 otherwise competent to render this declaration.

4 2. I am a Professor of Medicine at Stanford University and have worked on
5 the Stanford University faculty since 2001. I hold an M.D. and a Ph.D. in economics,
6 both earned from Stanford University. I am the director of the Stanford Center for
7 Demography and Economics of Health and Aging. At Stanford, I teach courses on
8 health economics in the Economics department and on advanced statistical methods
9 in the School of Medicine.

10 3. My primary research area is health economics, including a focus on
11 economic epidemiology. Between 1996 and 2020, I have published 136 articles in
12 peer-reviewed journals, including top-ranked journals in the economics, statistics,
13 public health, epidemiology, medicine, and health policy literatures. I have published
14 numerous papers on the economics and medicine of infectious disease, including on
15 the economics and epidemiology of HIV, H1N1 flu, H5N1 flu, seasonal influenza,
16 antimicrobial resistance and antibiotic use, and COVID-19. I have written a popular
17 textbook, *Health Economics*, used to teach the subject in universities around the
18 world. The textbook includes a chapter on economic epidemiology that surveys the
19 literature on disease modeling, including compartment models such as the
20 Susceptible-Infected-Recovered (SIR) models, commonly in use to forecast the
21 COVID-19 epidemic.

22 4. I have been actively researching the COVID-19 epidemic using my
23 expertise in infectious disease epidemiology and health economics. To date, I have
24 published two papers in peer-reviewed journals related to the epidemic. In addition, I
25 have written three articles that are currently under consideration at peer-reviewed
26 journals, and I have published three editorials on economic¹ and epidemiological²

27 ¹ Jay Bhattacharya and Mikko Packalen, *Lives vs Lives: The Global Cost of Lockdown*, Spectator USA,
28 <https://spectator.us/lives-vs-lives-global-cost-lockdown/> (last visited July 9, 2020).

1 issues related to the epidemic, including an editorial³ on optimal public health
2 management of the epidemic.

3 5. My published papers on COVID-19 include the first published
4 serological study measuring the prevalence of the COVID-19 epidemic. This study,
5 conducted in LA County, uses evidence from a specific antibody response to SARS-
6 CoV-2 (the virus that causes COVID-19) infection in an adult community-dwelling
7 sample picked to be representative of the county. This piece was published in the
8 *Journal of the American Medical Association*, one of the leading peer-reviewed journals
9 in medicine. This paper finds that by April 10 - 11, 2020, 4.3% of LA County adults
10 show specific antibody evidence of prior or current COVID-19 infection. This
11 prevalence rate represents a multiple of 43.5 times the number of cases confirmed by
12 the county public health authority by that date. One important implication of this
13 paper is that the infection fatality rate from COVID-19 infection in LA County up to
14 the date of the survey (that is, the probability of dying given that a person is infected
15 with SARS-CoV-2) is at least an order of magnitude lower than the case fatality rate.
16 The case fatality rate includes only patients who were infected with SARS-CoV-2 and
17 identified as a case in the denominator of the calculation. Cases most typically
18 include patients who have severe symptoms and thus come to the attention of
19 medical authorities. Our study shows that cases represent only a small fraction of the
20 set of people who have been infected with SARS-CoV-2. I served as the senior author
21 for this article.

22 6. I have also published a second peer-reviewed paper in the *Journal of*
23 *Public Health* on racial disparities in knowledge and attitudes regarding the danger

24 ² Eran Bendavid and Jay Bhattacharya, *Is the Coronavirus as Deadly as They Say?*, WSJ Opinion,
25 <https://www.wsj.com/articles/is-the-coronavirus-as-deadly-as-they-say-11585088464> (March 24,
26 2020).

27 ³ Jay Bhattacharya and Sanjiv Agarwal, *Lift lockdowns, protect the vulnerable, treat Covid like a health*
28 *issue and not a disaster*, The Print, <https://theprint.in/health/lift-lockdowns-protect-the-vulnerable-treat-covid-like-a-health-issue-and-not-a-disaster/466786/> (last visited July 26, 2020)

1 posed by COVID-19 infection and the efficacy of personal behaviors like hand
2 washing and social distancing in protecting against infection. I reviewed the literature
3 cited in the paper regarding best practices for personal protection to prevent
4 exposure to SARS-CoV-2.

5 7. As stated above, I currently have three unpublished papers on COVID-
6 19 presently undergoing peer review. These include two papers reporting on
7 seroprevalence studies and a third paper using data from seroprevalence studies in
8 the context of an SIR model to forecast the spread of COVID-19 in a way that
9 accounts for the large number of asymptomatic patients.

10 8. First, I am the senior author of the Santa Clara County seroprevalence
11 study. It is the first seroprevalence study where the study team made a scientific
12 paper available (undergoing peer review), and it is still, to my knowledge, the largest
13 community seroprevalence survey in the US. The results from Santa Clara County
14 (SCC) were similar to the results from the LA County seroprevalence study. On
15 April 3rd & 4th, 2020, the seroprevalence of SARS-CoV-2 antibodies in the SCC
16 sample, reweighted to match the zip code of residence, sex, and race distribution of
17 SCC, was 2.8%. The Santa Clara study has been enormously influential and has
18 served as a template for the many seroprevalence studies that have followed it. The
19 preprint article reporting on the Santa Clara study, though not peer-reviewed, has
20 generated 147 citations (according to Google Scholar accessed on July 9, 2020) to
21 date.

22 9. Second, I am the senior author of a study (still undergoing peer review)
23 measuring the seroprevalence of SARS-CoV-2 infection among employees of Major
24 League Baseball on April 14th & 15th, 2020. This is the first seroprevalence study of
25 national scope measuring the extent of COVID-19. The main finding from that study
26 is that, as of the date of data collection, the prevalence of current or prior COVID-19
27 infection in the MLB employee population was 0.7%.

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1 10. Finally, I am a co-author of a preprint paper (still undergoing peer
2 review) titled “Visualizing the Invisible: The Effect of Asymptomatic Transmission
3 on the Outbreak Dynamics of COVID-19.” This paper presents the first forecasting
4 model that accounts for data provided by seroprevalence studies such as the LA
5 County, Santa Clara County, and MLB studies. In particular, the model accounts for
6 the vast population of previously infected people identified by the seroprevalence
7 studies and challenges the notion that contact tracing can be a viable strategy to
8 control the further spread of COVID-19 infection.

9 11. In addition to my published work, over the past three months, I have
10 been invited to serve as a peer reviewer for several scientific journals to review
11 COVID-19 related submissions by other scientists. These journals include the British
12 Medical Journal, Health Affairs, the Journal of Infectious Disease, and the Annals of
13 Internal Medicine. For these journals, I have provided scientific advice regarding the
14 publication of articles on topics related to the COVID-19 epidemic.

15 12. In May 2020, I testified at a virtual roundtable organized by Senator Pat
16 Toomey on the subject of the potential reopening of youth baseball leagues while
17 protecting the safety of participants. At this roundtable, I reviewed the evidence
18 regarding the relatively low mortality and morbidity risk that SARS-CoV-2 infection
19 poses to children and adolescents, and I discussed social distancing and other
20 protocols to make youth baseball safer for coaches, umpires, and other adult
21 participants.

22 13. In July 2020, I was invited to testify at a House Oversight Briefing to the
23 Economic and Consumer Policy Subcommittee on SARS-CoV-2 vaccine
24 development. My testimony focused on the randomized trials and other studies
25 currently underway to produce a safe and effective vaccine to SARS-CoV-2 infection,
26 and in particular on the confidence that the public can have on the US Food and
27 Drug Administration’s (FDA) evaluation of the scientific evidence regarding new
28 vaccines.

14. Plaintiffs in this case contacted me about providing expert testimony regarding the public health risks of the South Bay United Pentecostal Church (hereafter SBUPC) holding in-person church services, and I agreed to provide a declaration with my professional opinion on these matters. I am not taking any personal payments for my COVID-19 related work, so my work on this declaration is pro-bono.

15. To prepare this declaration, I have reviewed the US Centers for Disease Control's "Considerations for Communities of Faith" issued on May 23rd, 2020 to provide guidance for congregations looking to safely hold services. I have compared the CDC guidance against the safety plans of SBUPC. My main conclusion from this comparison is that the SBUPC plans are consistent with the CDC guidelines.

16. The US Centers for Disease Control (CDC) guidance for communities of faith starts by recognizing the particular importance that religious communities such as the SBUPC be permitted to gather for worship.⁴ The CDC document cites the First Amendment right to the free exercise of religion, and reminds state and local authorities to account for this right in decision making about permitting religious communities to meet. The recommendations in the CDC guidance include: (1) communication with local public health authorities regarding in person service plans; (2) protection for staff who are at higher risk for severe illness, including older staff members and those with underlying medical conditions; (3) encouragement of the congregation and staff to engage in hygienic hand washing practices; (4) encouragement of the congregation and staff to wear masks when social distancing is difficult; (5) promotion of six-foot social distancing during worship; (6) disinfection and cleaning of the worship space before and after each service; (7) minimization of

⁴ Centers for Disease Control (2020) "Considerations for Communities of Faith" https://www.cdc.gov/coronavirus/2019-ncov/community/faith-based.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fphp%2Ffaith-based.html (accessed Aug. 12, 2020).

1 sharing of worship materials and shared food; (8) encouragement of staff and
2 congregants with symptoms consistent with COVID-19 infection to stay home; and
3 (9) posting of signs and messages to communicate information about practices that
4 can lead to disease spread. The CDC document is pointedly silent on singing during
5 worship and does not make any implicit or explicit recommendation regarding
6 communal singing.

7 17. The church's plan for services is consistent with the CDC guidance: (1)
8 the plan for worship service follows the six-foot social distancing rule (given the size
9 of the sanctuary, it is possible to hold more than the maximum of 100 people in the
10 service permitted by the State of California. while still following the CDC guideline);
11 (2) the church has a well-trained staff of 30 people (including a COVID-safe intake
12 team) who have experience facilitating the service to minimize the risk of disease
13 spread while still conducting worship activities consistent with the church's faith; (3)
14 a plan to thorough clean the sanctuary between services; (4) a clearly communicated
15 recommendation that high risk or elderly staff members, volunteers, and congregants
16 not attend the service; (5) a requirement that congregants wear masks during their
17 participation in the service, especially while singing; (6) temperature checks on staff
18 and congregation members before permitting participation in service; and (7) clearly
19 marked signs communicating expectations of compliance with public health
20 requirement such as social distancing.

21 18. In the paragraphs that follow, drawn both from my own work and from
22 the scientific literature on COVID-19, I discuss (1) the mortality risk from COVID-19
23 infection for patients of different ages; and (2) the public health community's
24 approval of the principle that individuals and groups may appropriately take actions
25 that raise the risk of COVID-19 infection if the value provided by those actions to
26 participants is sufficiently large to outweigh the infection-related harms.

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1 Mortality Risk from COVID-19 Infection

2 19. The best evidence on the infection fatality rate from SARS-CoV-2
 3 infection (that is, the fraction of infected people who die due to the infection) comes
 4 from seroprevalence studies. The definition of seroprevalence of COVID-19 is the
 5 fraction of people within a population who have specific antibodies against SARS-
 6 CoV-2 in their bloodstream. Seroprevalence studies provide better evidence on the
 7 total number of people who have been infected than do case reports or a positive
 8 reverse transcriptase - polymerase chain reaction (RT-PCR) test counts; these both
 9 miss infected people who are not identified by the public health authorities or do not
 10 volunteer for RT-PCR testing. Because they ignore unreported cases in the
 11 denominator, fatality rate estimates based on case reports or positive test counts are
 12 substantially biased upwards.

13 20. According to a meta-analysis⁵ by Dr. John Ioannidis of every
 14 seroprevalence study conducted with a supporting scientific paper (50 estimates in
 15 total from 32 different localities around the world), the median infection fatality rate
 16 from COVID-19 infection is 0.27%. For COVID-19 patients under 70, the meta-
 17 analysis finds an infection fatality rate of 0.05%, with a range between 0.00% to 0.57%
 18 in different locations. A newly released meta-analysis⁶ by scientists independent of
 19 Dr. Ioannidis' group, published in the National Bureau of Economic Research
 20 working paper series, reaches qualitatively similar conclusions.

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23 ///

24 ⁵ John P.A. Ioannidis, *The Infection Fatality Rate of COVID-19 Inferred from Seroprevalence Data*,
 25 medRxiv, <https://www.medrxiv.org/content/10.1101/2020.05.13.20101253v2.full.pdf> (accessed
 online July 14, 2020).

26 ⁶ Levin AT, Cochran KB, Walsh SP (2020) Assessing the Age Specificity of Infection Fatality Rates
 27 for COVID-19: Meta-Analysis & Public Policy Implications. National Bureau of Economic Research
 28 Working Paper #27597.

21. A recent US Centers for Disease Control (CDC) report⁷ found that there were between six and 24 times more SARS-CoV-2 infections than cases reported between March and May 2020. This study is based on serological analysis of blood samples incidentally collected by commercial laboratories in 10 cities nationwide. Though the CDC does not provide the infection fatality rate estimate implied by their seroprevalence estimate in their report, the multiplier to cases they report is in line with the seroprevalence studies reviewed by Dr. Ioannidis above, which imply an infection fatality rate between 2 and 3 in 1,000.

22. In May 2020, the CDC released guidance⁸ for pandemic planning scenario that included its best estimate of the infection fatality rate in the US, of 0.26%. The CDC's estimate of the symptomatic fatality rate among diagnosed cases was 0.4%, and they estimated about 65% of all cases are symptomatic, which implies an infection fatality rate estimate of $0.4\% * 0.65 = 0.26\%$.

23. By contrast, the CDC estimated⁹ that the symptomatic fatality rate from influenza infection of 0.13% and 0.10% during the 2017-18 and 2018-19 seasons, respectively. These figures should be compared against the symptomatic fatality rate for COVID-19 reported by the CDC (0.4%) rather than the infection fatality rate (0.26%). To my knowledge the CDC has not provided a publicly available estimate of the infection fatality rate for the flu during those seasons. Here, the symptomatic fatality rate represents the probability that a patient infected with the flu virus with some flu symptoms dies from the flu, while the infection fatality rate (IFR) indicates

⁷ Havers FP, Reed C, Lim T, et al. Seroprevalence of Antibodies to SARS-CoV-2 in 10 Sites in the United States, March 23-May 12, 2020. *JAMA Intern Med*. Published online July 21, 2020. doi:10.1001/jamainternmed.2020.4130

⁸ *COVID-19 Pandemic Planning Scenarios*, Centers for Disease Control and Prevention, (May 20, 2020). <https://web.archive.org/web/20200706205612/https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html>. Accessed through the internet archive site, <https://web.archive.org>.

⁹ *Disease Burden of Influenza*, Centers for Disease Control and Prevention, <https://www.cdc.gov/flu/about/burden/index.html> (last visited on July 9, 2020).

the probability that a patient infected with influenza, either with or without symptoms, dies from the flu.

24. In mid-July, the CDC updated its pandemic planning site and revised its preferred estimate of IFR upward to 0.65%.¹⁰ In support of this revision, the CDC cited a pre-print meta-analysis of 25 infection fatality rate estimates.¹¹ This meta-analysis includes IFR estimates provided in modeling papers (based on no direct empirical data) and observational studies that do not adequately consider undiagnosed infections. Though the meta-analysis does consider seroprevalence studies among its sources, it arbitrarily restricts attention to only seroprevalence studies reported by a select set of governments, while ignoring the much larger set of seroprevalence studies (including peer-reviewed studies) cited by Prof. Ioannidis in his report cited in paragraph 20 above. Even if the updated CDC estimate of the infection fatality rate is accepted as accurate, 99.35% of all people infected by the SARS-CoV-2 virus survive the infection, the vast majority with no short or long term medical sequelae.

25. The mortality risk for those infected with SARS-CoV-2 is not the same for all patients. Older patients are at higher risk of death if infected, while younger patients face a vanishingly small risk. The best evidence on age-specific infection fatality rates comes again from seroprevalence studies. Three such studies (of which I am currently aware) provide age-specific infection fatality rate estimates. The CDC's current best estimates are that the symptomatic fatality rate from COVID-19 among patients less than 50 years old is 0.05%, or 5 in 10,000; 0.2% for patients between ages 50 and 64; and 1.3% for patients 65 and above. The infection fatality rates are lower

¹⁰ *COVID-19 Pandemic Planning Scenarios*, Centers for Disease Control and Prevention, (July 10, 2020). <https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html>

¹¹ Meyerowitz-Katz, G., & Merone, L. (2020). A systematic review and meta-analysis of published research data on COVID-19 infection-fatality rates. *medRxiv*. <https://www.medrxiv.org/content/10.1101/2020.05.03.20089854v4>

1 than these numbers since only a fraction of patients are symptomatic.

2 26. A study of the seroprevalence of COVID-19 in Geneva, Switzerland
3 (published in the *Lancet*)¹² provides a detailed age break down of the infection fatality
4 rate in a preprint companion paper¹³: 0.0016% for patients 5 to 9 years old (16 deaths
5 per 100,000 infections); 0.00032% for patients 10 to 19 years old (3.2 deaths per
6 million infections); 0.0092% for patients 20 to 49 years old (92 deaths per 100,000
7 infections); 0.14% for patients 50 to 64 years old (14 cases per 10,000 infections); and
8 5.6% for patients above 65.

9 27. For this declaration, I estimated the age-specific infection fatality rates
10 from the Santa Clara County seroprevalence study¹⁴ data (for which I am the senior
11 investigator). The infection fatality rate is 0% among people between 0 and 19 years
12 (there were no deaths in Santa Clara in that age range up to that date); 0.013% for
13 people between 20 and 39 years (1.3 deaths per 10,000 infections); 0.16% for people
14 between 40 and 69 years (1.6 deaths per 1,000 infections); and 1.3% for people above
15 70 years. In fact, in all of California¹⁵ up through August 13th, there have been no
16 deaths at all among COVID-19 patients below age 18. 77.5% of all COVID-19 related
17 deaths occurred in patients 65 and older.

18 28. The church service necessarily will include people of all ages in
19 attendance. The scientific evidence shown here shows that for the non-elderly

20 ¹² Silvia Stringhini, PhD, Ania Wisniak, MS, et al., *Seroprevalence of Anti-SARS-CoV-2 IgG*
21 *Antibodies in Geneva, Switzerland (SEROCoV-POP): A Population Based Study*, The Lancet,
22 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31304-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31304-0/fulltext) (June 11,
2020).

23 ¹³ Francisco Perez-Saez, Stephen Lauer, et al., *Serology-Informed Estimates of SARS-COV-2 Infection*
24 *Fatality Risk in Geneva, Switzerland*, OSFPREPRINTS, <https://osf.io/wdbpe/> (June 15, 2020).

25 ¹⁴ Eran Bendavid, MD, Bianca Mulaney, MS, et al., COVID-19 Antibody Seroprevalence in Santa
26 Clara County, California, medRxiv preprint,
<https://www.medrxiv.org/content/10.1101/2020.04.14.20062463v2> (April 30, 2020)

27 ¹⁵ Age Group in California, *Cases and Deaths Associated with COVID-19*, California Department of
28 Public Health, <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/COVID-19-Cases-by-Age-Group.aspx> (July 23, 2020).

1 congregants present, the mortality risk conditional on contracting the disease is very
 2 low. The infection fatality rate is less than 0.2% for this population according to the
 3 estimates cited above that come from the US. That is, infected people under age 70
 4 survive the disease at least 99.8% of the time. Even this number overestimates the risk
 5 of attending service, since the probability of contracting the disease during the service
 6 is much less than one, though difficult to estimate given available public health
 7 information. For the elderly congregants (age 70+), the mortality risk conditional on
 8 contracting the disease is higher, but still small, with 98.7% of infected elderly people
 9 surviving the infection, according to the infection fatality rate from US studies.
 10 These risks are commensurate or less than many other risks that many people are
 11 willing to take in the pursuit of their lives and faith, and of course no one is forced to
 12 come to the worship service in person.

14 **Public Health Principles Accept Trade-Offs in Risk Taking**

15 29. In the preceding paragraphs, I have presented evidence that the risk of
 16 disease spread from younger people to older people is small, and that the risk of
 17 mortality to people under the age of 65 is on the order of 1 in 1,000 if someone does
 18 become infected (lower with younger age). The final question I address in my
 19 declaration is a principle promoted by public health experts and the public health
 20 community that implies that certain action may be justified despite some public
 21 health risk if the action is sufficiently important to warrant it.

22 30. The Black Lives Matter (BLM) protests started nationwide shortly after
 23 the killing of George Floyd in Minnesota on May 25th, 2020. One press account¹⁶
 24 suggests that more than 26 million Americans nationwide (primarily in big cities, but

26 ¹⁶ Matthew Wright, *Black Lives Matter Protests May be the Largest in U.S. History as More Than 26*
 27 *Million Americans Have Been at the More Than 4, 700 Demonstrations Around the Country*,
 28 DailyMail.com, <https://www.dailymail.co.uk/news/article-8488409/BLM-protests-largest-U-S-history-26MILLION-Americans-attended.html> (July 8, 2020).

also elsewhere) have participated in at least one protest since the first protests started on May 26th, 2020. Protest organizers have manifestly not followed WHO or CDC guidelines regarding the conduct of large-scale events during the COVID-19 epidemic. Prominent public officials, including Los Angeles Mayor Eric Garcetti, have participated in BLM protests that violate guidelines regarding the use of masks¹⁷ and maintaining social distancing during large events.

31. The reaction¹⁸ of many prominent voices¹⁹ within the public health community to the BLM protests has emphasized the importance of the right of Americans concerned about racial injustice to protest despite COVID-19. Nearly 1,300 public health experts signed a public letter²⁰ supporting the right of BLM protestors to gather publicly because of their (the protestors' and the public health experts') deeply held opposition to systemic racism. The letter explicitly acknowledged that social distancing and public masking would minimize the spread of COVID-19 and urged "to the extent possible" that these practices be followed by demonstrators while recognizing that protestors would not always be able to follow these guidelines. The signatories, in effect, weighed the costs of the protests (some risk of COVID-19 disease spread and mortality) against the benefits (support for a cause they deem worthy) and concluded in favor of the BLM demonstrations.

¹⁷ Jaclyn Cosgrove, et al., *Mayor Garcetti takes a knee amid chants of 'Defund police!' at downtown L.A. protest*, Los Angeles Times, <https://www.latimes.com/california/story/2020-06-02/mayor-garcetti-takes-a-knee-amid-chants-of-defund-police-at-downtown-l-a-protest> (June 2, 2020).

¹⁸ Rachel Weiner, *Political and Health Leaders' Embrace of Floyd Protests Fuels Debate Over Coronavirus Restrictions*, The Washington Post, https://www.washingtonpost.com/health/political-and-health-leaders-embrace-of-floyd-protests-fuels-debate-over-coronavirus-restrictions/2020/06/11/9c60bca6-a761-11ea-bb20-ebf0921f3bbd_story.html (June 11, 2020).

¹⁹ Dan Diamond, *Suddenly, Public Health Officials Say Social Justice Matters More Than Social Distance*, Politico, <https://www.politico.com/news/magazine/2020/06/04/public-health-protests-301534> (June 4, 2020).

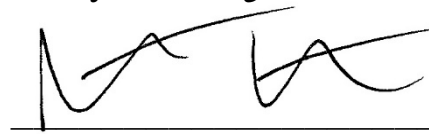
²⁰ *Open Letter Advocating for an Anti-Racist Public Health Response to Demonstrations Against Systemic Injustice Occurring During the COVID-19 Pandemic*, Google Drive, <https://drive.google.com/file/d/1Jyfn4Wd2i6bRi12ePghMHtX3ys1b7K1A/view> (last visited July 9, 2020).

32. The principle the public letter supports is entirely reasonable: public health recommendations regarding behavior by private actors (such as the decision to protest) should weigh the benefits of that behavior against the public health costs. Though the signatories of the letter express their own support for the cause underlying the BLM protests, this principle cannot be contingent on their support of those particular activities alone. If this contingency were necessary, the charge by other public health experts²¹ that the signatories are hypocritical in their support of masks, social distancing, and social isolation to reduce COVID-19 spread would be correct. If the benefits of the undertaking are important enough relative to the public health risks and care is taken to minimize those risks by adhering to the extent possible to safe practice guidelines promulgated by public health authorities, then the activity should receive approval by public health experts.

33. Given these considerations, the importance of the First Amendment right to religious worship, and the scientific evidence cited in this declaration regarding the COVID-19 infection fatality rate, I believe that permitting in-person worship at the SBUPC is consistent with good public health practice.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge.

Dated: August 14, 2020



Dr. Jayanta Bhattacharya

²¹ Joseph S. Ladapo, *The Coronavirus Credibility Gap*, WSJ Opinion, <https://www.wsj.com/articles/the-coronavirus-credibility-gap-11593645643> (July 1, 2020).

CERTIFICATE OF SERVICE

South Bay United Pentecostal Church, et al. v. Gavin Newsom, et al.
USDC, Southern District Case No.: 3:20-cv-00865-BAS-AHG

I hereby certify that I electronically filed the following document with the Clerk of the Court by using the CM/ECF system:

- **Declaration of Dr. Jayanta Bhattacharya in Support of Plaintiffs' Renewed Motion for a Temporary Restraining Order / Preliminary Injunction.**

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the CM/ECF system.

☒ BY ELECTRONIC TRANSMISSION: I electronically filed the above document(s) with the Clerk of the Court using the CM/ECF system. The CM/ECF system will send notification of this filing to the person(s).

☐ BY MAIL: By placing a copy of the same in the United States Mail, postage prepaid, and sent to their last known address(es).

☐ BY ELECTRONIC MAIL: I served a true copy, electronically on designated recipients via electronic transmission of said documents.

I declare under penalty of perjury, under the laws of the State of California, that the above is true and correct.

Executed on August 14, 2020, at Rancho Santa Fe, California.


Kathy Denworth