MATERIALS FOR SUPPLEMENTING YOUR COVID-19 ARGUMENTS

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PRECAUTIONS & REMINDERS

1. Update – Any data contained in this document that will need regular updating is highlighted in yellow. Sources for updating data are in the footnotes.

2. Underlying conditions – Almost any medical condition is an underlying condition – smoking, obesity, asthma, certain treatments and medications, age, pregnancy, diabetes, heart disease, past cancers, past organ transplants, and many other medical conditions all qualify as underlying conditions. If your client is young and has no apparent underlying conditions, we still have something for you. *See* BOP Cannot Provide Needed Medical Care.

I. General Background on COVID-19

On March 11, 2020, the World Health Organization (WHO) classified COVID-19, a disease caused by the new strain of coronavirus, as a pandemic.[1] On March 13, 2020, the President declared the COVID-19 outbreak a national emergency.[2] As

[1] World Health Organization, *WHO Director-General's Opening Remarks* (March 11, 2020), https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020.

[2] White House, *Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak* (Mar. 13, 2020), https://www.whitehouse.gov/presidential-

of April 26, 2020, COVID-19, has infected over 2.8 million people in at least 177 countries, leading to at least 199,371 deaths worldwide.[3] COVID-19 has infected at least 955,489 people in the United States – more than any other country – and 48,973 deaths have resulted.[4]

As quick as COVID-19 is spreading across the country, it is spreading through the federal prison system even faster: currently the cumulative rate of rise in COVID-19 cases is nearly twice that of the national cumulative rate of rise.[5] As of April 26, 2020, at least 27 inmates have died in the custody of the BOP.[6] That figure does not include individuals who have died in pretrial or presentence detention at local facilities. According to the BOP, as of April 26, 2020, at least 1,184 inmates and 443 staff at 62 facilities have tested positive for COVID-19 and positive cases have infiltrated BOP facilities in every region of the country, including in New York, Oklahoma, Florida, Ohio, Delaware, Tennessee, Louisiana, Georgia, Arizona, Texas, California, Pennsylvania, Arkansas, Kansas, Washington,

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actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/ (declaring "the COVID-19 outbreak in the United States constitutes a national emergency, beginning March 1, 2020").

[3] *Coronavirus Map: Tracking the Spread of the Outbreak*, N.Y. Times, https://www.nytimes.com/interactive/2020/world/coronavirus-maps.html (last visited Apr. 23, 2020) ("*Coronavirus Map*").

[4] *Coronavirus Map*.

[5] *See* Fed. Defenders of New York Southern & Eastern Districts, *BOP COVID-19 Charts and Graphs,* https://federaldefendersny.org/assets/uploads/BOP_COVID-19_Charts_and_Graphs.4.22.pdf (indicating the cumulative BOP rate of rise since March 20, 2020, as of April 22, 2020, is 955.70%, while the national cumulative rate of rise for that period is 498.13%) (last visited April 26, 2020).

[6] *See* Fed. Bureau of Prisons, *BOP: COVID-19 Update* https://www.bop.gov/coronavirus/index.jsp (last visited Apr. 26, 2020).

New Jersey, Maryland, Massachusetts, Mississippi, Connecticut, North Carolina, South Carolina, Alabama, Michigan, Illinois, Missouri, Wisconsin, Kentucky, Washington, D.C., and Guam.[7] While the infection rate based on available BOP data is disturbing, "because testing has been grossly insufficient, these numbers are almost certainly an undercount."[8]

Employees at federal prisons are sounding the alarm that facilities lack the manpower to operate, the medical equipment to contain the virus, and the physical space to quarantine. A union representative for officers at the Oakdale facility in Louisiana, where the first death of a federal inmate occurred on March 28, 2020, reported, "[w]e don't know how to protect ourselves. Staff are working 36-hour shifts – there's no way we can keep going on like this."[9] According to one account, "more than a dozen workers in the Bureau of Prisons . . . have said that federal prisons are ill-prepared for a coronavirus outbreak. Many lack basic supplies, like masks, hand sanitizer and soap."[10] A prison employee at the U.S. Penitentiary in

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[7] *See* Fed. Bureau of Prisons, *BOP: COVID-19 Update*, https://www.bop.gov/coronavirus/index.jsp (last visited Apr. 26, 2020).

[8] Lisa Freeland, *et al.*, *We'll See Many More Covid-19 Deaths in Prisons if Barr and Congress Don't Act Now*, Wash. Post (Apr. 6, 2020), https://www.washingtonpost.com/opinions/2020/04/06/covid-19s-threat-prisons-argues-releasing-at-risk-offenders/.

[9] Kimberly Kindy, *An Explosion of Coronavirus Cases Cripples a Federal Prison in Louisiana*, Wash. Post (Mar. 29, 2020), https://www.washingtonpost.com/national/an-explosion-of-coronavirus-cases-cripples-a-federal-prison-in-louisiana/2020/03/29/75a465c0-71d5-11ea-85cb-8670579b863d_story.html ("Kindy, *Explosions of Coronavirus Cases*").

[10] *Outbreaks in Jails and Prison Prove Hard to Contain*, N.Y. Times, https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html?referringSource=articleShare ("*Outbreaks in Jails and Prisons*") (last visited Apr. 23, 2020).

Atlanta said, "We do not have enough masks; we do not have the supplies needed to deal with this. We don't have enough space to properly quarantine inmates."[11] After the first employee death at the U.S. Penitentiary in Atlanta, employees reported "insufficient access to protective equipment and inconsistent communication about how many staff and inmates were infected at any given time."[12]

II. Courts Are Granting Relief Based on COVID-19

Courts have cited the dangers of the COVID-19 pandemic to grant release at all stages of the criminal justice process. Releases because of COVID-19 have been granted pre-trial,[13] pending sentencing after a guilty verdict or plea was entered

[11] *Outbreaks in Jails and Prisons.*

[12] Cassidy McDonald, *She was promoted a month before her death. Coworkers say she was never moved into her new role, away from sick inmates*, CBS News (Apr. 20, 2020), https://www.cbsnews.com/news/coronavirus-death-robin-grubbs-atlanta-federal-penitentiary-workers-criticize-covid-19-response/.

[13] **[Footnote last updated April 27, 2020.]** *See, e.g.*, *United States v. Mahan*, Case No. 1:19-cr-233-DCN, Dkt. No. 67 (D. Idaho Apr. 10, 2020) (releasing 36-year-old asthmatic defendant with significant criminal history, including aggravated assault and parole violations, charged in 10-year mandatory minimum drug case due to compelling risk posed by COVID-19); *United States v. Campos*, No. 4:20-cr-56, Dkt. No. 22 (D. Ariz. Apr. 2, 2020) (COVID-19 a changed circumstance justifying pretrial release for defendant, facing 20-year mandatory minimum and with ties to foreign country, accused of trafficking 24 kilograms of cocaine); *United States v. Tovar*, No. 1:19-cr-341-DCN, Dkt. No. 42 (D. Idaho Apr. 2, 2020) (releasing defendant previously detained in presumption case after finding COVID-19 a compelling basis for release under § 3142(i)); *United States v. Claudio-Montes*, No. 3:10-cr-212-JAG-MDM, Dkt. No. 3374 (D.P.R. Apr. 1, 2020) ("[G]iven the COVID-19 pandemic afflicting the world, rather than issue an arrest warrant at this time, the Court will instead issue a summons[.]"); *United States v. Davis*, No. 1:20-cr-9-ELH, Dkt. No. 21 (D. Md. Mar. 30, 2020) (releasing defendant due to the "urgent priority" of decarcerating, to protect both the defendant and the community, and to preserve Sixth Amendment rights in this perilous time); *United States v. Mclean,* No. 19-cr-380, Dkt. No. (D.D.C. Mar. 28, 2020) ("As counsel for the Defendant candidly concedes, the facts and evidence that the Court previously weighed in concluding that Defendant posed a danger to the community have not changed – with one exception. That one exception – COVID-19 – however, not only rebuts the statutory presumption of dangerousness, *see* 18 U.S.C. § 3142(e), but tilts the balance in favor of release."); *United States v. Michaels*, 8:16-cr-76-JVS, Minute Order, Dkt. No. 1061 (C.D. Cal. Mar. 26, 2020) ("Michaels has demonstrated that the

(even, in one case, after pretrial release had been revoked),[14] and pending appeal.[15] Significantly, numerous courts are also considering COVID-19 when reducing sentences based on compassionate release or the FSA-retroactivity provision in the First Step Act.[16] Federal courts have granted release to people held in immigration

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COVID-19 virus and its effects in California constitute 'another compelling reason'" justifying temporary release under § 3142(i).); *United States v. Jaffee*, No. 19-cr-88 (D.D.C. Mar. 26, 2020) (releasing defendant with criminal history in gun & drug case, citing "palpable" risk of spread in jail and "real" risk of "overburdening the jail's healthcare resources"; "the Court is . . . convinced that incarcerating the defendant while the current COVID-19 crisis continues to expand poses a greater risk to community safety than posed by Defendant's release to home confinement"); *United States v. Harris*, No. 19-cr-356 (D.D.C. Mar. 26, 2020) ("The Court is convinced that incarcerating Defendant while the current COVID-19 crisis continues to expand poses a far greater risk to community safety than the risk posed by Defendant's release to home confinement on . . . strict conditions."); *United States v. Perez*, No. 19 CR. 297 (PAE), 2020 WL 1329225, at *1 (S.D.N.Y. Mar. 19, 2020) (releasing defendant due to the "heightened risk of dangerous complications should he contract COVID-19"); *United States v. Stephens*, 2020 WL 1295155, __F. Supp. 3d__ (S.D.N.Y. Mar. 19, 2020) (releasing defendant in light of "the unprecedented and extraordinarily dangerous nature of the COVID-19 pandemic"); *In re Manrigue*, 2020 WL 1307109 (N.D. Cal. Mar. 19, 2020) ("The risk that this vulnerable person will contract COVID-19 while in jail is a special circumstance that warrants bail.").

[14] **[Footnote last updated April 27, 2020.]** *See, e.g.*, *United States v. Sharp*, No. 19-cr-03, Dkt. No. 45 (D. Mont. Apr. 14, 2020) (extending deadline for self-surrender by 90 days "in light of the COVID-19 pandemic and the rapidly evolving public health situation in federal detention facilities"); *United States v. Roeder*, 2020 WL 1545872 (3d Cir. Apr. 1, 2020) (reversing district court's denial of defendant's motion to delay execution of his sentence due to the COVID-19 pandemic); *United States v. Meekins*, Case No. 1:18-cr-222-APM, Dkt. No. 75 (D.D.C. Mar. 31, 2020) (post-plea, pre-sentence release order releasing defendant with three pending assault charges due to extraordinary danger COVID-19 poses to folks in detention); *United States v. Hector*, Case No. 2:18-cr-3-002, Dkt. No. 748 (W.D. Va. Mar. 27, 2020) (granting release pending sentencing after Fourth Circuit remanded detention decision requiring court to specifically consider extraordinary danger posed by COVID-19 to folks in prison); *United States v. Kennedy*, No. 5:18-cr-20315, Dkt. No. 77 (E.D. Mich. Mar. 27, 2020) (post-plea presentence release of defendant whose pretrial release was revoked because "the COVID-19 pandemic constitutes an independent compelling reason" for temporary release and "is *necessary* for Defendant to prepare his pre-sentence defense"); *United States v. Matthaei*, No. 1:19-CV-00243-BLW, 2020 WL 1443227, at *1 (D. Idaho Mar. 16, 2020) (extending self-surrender date by 90 days in light of COVID-19).

[15] **[Footnote last updated April 27, 2020.]** *See, e.g., United States v. Chavol*, No. 20-50075 (9th Cir. Apr. 2, 2020) (stipulation in a FRAP(9) appeal to release on conditions); *United States v. Hector*, No. 2:18-cr-3-002, Dkt. No. 748 (W.D. Va. Mar. 27, 2020) (granting release pending sentencing after Fourth Circuit remanded detention decision requiring court to specifically consider extraordinary danger posed by COVID-19 to folks in prison).

[16] **[Footnote last updated April 27, 2020.]** *See, e.g.*, *United States v. Kriglstein*, No. 16-cr-663, Dkt. No. 55 (D.N.M. Apr. 23, 2020) (defendant satisfies PS 5050.50(3)(b) released in light of heart &

respiratory problems and risk posed by COVID-19); *United States v. Logan*, 1:12-cr-307, DKt. No. 179 (N.D.N.Y. Apr. 22, 2020) (granting compassionate release to 58 years old w/ diabetes, hypertension, hypercholesterolemia, and coronary artery disease); Poulios v. United States, 2020 WL 192775 (E.D. Va. Apr. 21, 2020); *United States v. Love*, No. 1:14-cr-4, Dkt. No. 41 (Apr. 21, 2020) (granting pro se motion for release where defendant sentenced for armed bank robbery and brandishing a firearm, due to history of strokes and risk posed by his incarceration at Elkton); *United States v. Scparta*, 2020 WL 1910481 (S.D.N.Y. Apr. 20, 2020); *United States v. Atwi*, 2020 WL 1910152 (E.D. Mich. Apr. 20, 2020); *United States v. Gileno*, 2020 WL 1916773 (D. Conn. Apr. 20, 2020); *United States v. Asaro*, 2020 WL 1899221 (E.D.N.Y. Apr. 20, 2020); *United States v. Joling*, 2020 WL 1903280 (D. Or. Apr. 17, 2020); *United States v. Atkinson*, 2020 WL 1904585 (D. Nev. Apr. 17, 2020); *United States v. Cosgrove*, Case No. 15-cr-230-RSM, Dkt. No. 95 (W.D. Wash. Apr. 15, 2020) (reconsidering denial of compassionate release and releasing defendant because of "rapid" deterioration of conditions at Terminal Island FCI); *United States v. Kataev*, Case No. 1:16-cr-763-LGS, Dkt. No. 778 (S.D.N.Y. Apr. 14, 2020) (releasing 51-year-old defendant suffering from "chronic sinusitis" and whose wife is disabled such that she cannot care for their 10-year-old child: "Defendant's unique health and family circumstances together, and in light of the COVID-19 public health crisis, constitute 'extraordinary and compelling reasons' to modify Defendant's sentence"); *United States v. McPherson*, Case No. 3:94-cr-5708, Dkt. No. 209 (W.D. Wash. Apr. 14, 2020) (releasing defendant serving sentence on stacked § 924(c) offenses based on injustice of sentence and risk factors for COVID-19, noting that no "civilized society" could permit continued incarceration under these circumstances); *United States v. Ben-Yhwh*, No. 1:15-cr-830-LEK, Dkt. No. 206 (D. Hawaii Apr. 13, 2020) (excusing the 30-day wait and immediately releasing defendant with asthma and diabetes because his risk factors for COVID-19 present "high probability" of "catastrophic health consequences" if he continues to be detained); *United States v. Tran*, 8:08-cr-197-DOC, Dkt. No. 405 (C.D. Cal. Apr. 10, 2020) (ordering compassionate release in light of BOP's inability to protect vulnerable inmates from COVID-19); *United States v. Smith*, No. 1:12-cr-133-JFK, Dkt. No. 197 (S.D.N.Y. Apr. 13, 2020) (granting release; finding exhaustion waivable and waived); *United States v. Sawicz*, Case No. 08-cr-287, Dkt. No. 66 (E.D.N.Y. Apr. 10, 2020) (releasing child pornography offender based on "[t]he COVID-19 outbreak at FCI Danbury, combined with the fact that the defendant is at risk of suffering severe complications if he were to contract COVID-19 because of his hypertension"); *United States v. Trent*, Case No. 16-cr-178, ECF No. 106 (N.D. Cal. Apr. 9, 2020) (granting compassionate release in light of COVID-19); *United States v. Clagett*, Case No. 2:97-cr-265-RSL, Dkt. No. 238 (W.D. Wash. Apr. 9, 2020) (granting stipulated motion for compassionate release in light of severe risks posed by COVID-19); *United States v. Plunk*, Case No. 3:94-cr-36-TMB (D. Alaska Apr. 9, 2020) (granting compassionate release in light of COVID-19); *United States v. McCarthy*, 2020 WL 1698732 (D. Conn. Apr. 8, 2020) (granting compassionate release and waiving exhaustion requirement for defendant at serious risk from COVID-19); *United States v. Hansen*, 2020 WL 1703672 (E.D.N.Y. Apr. 8, 2020) (COVID-19 pandemic and medical problems justifies 7-month reduction in sentence); *United States v. Oreste*, Case No. 1:14-cr-20349-RNS-1, Dkt. No. 200 (S.D. Fla. Apr. 6, 2020) (stipulated compassionate release grant); *United States v. Hakim*, No. 4:05-cr-40025-LLP, Dkt. No. 158 (D.S.D. Apr. 6, 2020) (reducing sentence by an extra 40 months under the First Step Act in light of the extreme danger posed by COVID-19); *United States v. Zukerman*, No. 1:16-cr-194-AT, Dkt. No. 116 (Apr. 3, 2020) (waiving exhaustion and granting immediate compassionate release in light of COVID-19 to defendant convicted in multi-million dollar fraud scheme motivated by greed; "The severity of Zukerman's conduct remains unchanged. What has changed, however, is the environment where Zukerman is serving his sentence. When the Court sentenced Zukerman, the Court did not intend for that sentence to 'include a great and unforeseen risk of severe illness or death' brought on by a global pandemic"); *United States v. Foster*, No. 1:14-cr-324-02, Dkt. No. 191 (M.D. Pa. Apr. 3, 2020) (noting the "unprecedented" circumstances facing "our prison system" and finding that COVID-19 is an extraordinary and compelling basis for release; indeed, "[n]o rationale is more compelling or extraordinary"); *United States v. Edwards*, No. 6:17-cr-3-NKM, Dkt. No. 134 (Apr. 2, 2020) (granting compassionate release; "[h]ad the Court known when

it sentenced Defendant in 2018 that the final 18 months of his term in federal prison would expose him to a heightened and substantial risk presented by the COVID-19 pandemic on account of Defendant's compromised immune system, the Court would not have sentenced him to the latter 18 months"); *United States v. Hernandez*, No. 18-cr-20474, Dkt. No. 41 (S.D. Fla. Apr. 2, 2020) (granting unopposed motion for compassionate release for defendant with cancer & immunosuppression and just under 12 months left to serve on 39 month sentence); *United States v. Perez*, No. 1:17-cr-513-AT, Dkt. No. 98 (S.D.N.Y. Apr. 1, 2020) (granting compassionate release where "[t]he benefits of keeping [Perez] in prison for the remainder of his sentence are minimal, and the potential consequences of doing so are extraordinarily grave"); *United States v. Rodriguez*, No. 2:03-cr-271-AB, Dkt. No. 135 (E.D. Pa. Apr. 1, 2020) (granting release after finding risk factors for COVID-19 constitute extraordinary and compelling reason and noting that prisons are "tinderboxes for infectious disease"); *United States v. Williams*, No. 3:04-cr-95-MCR-CJK, Dkt. No. 91 (Apr. 1, 2020) (compassionate release in light of severe risk posed to defendant by COVID-19); *United States v. Gonzalez*, No. 2:18-cr-232-TOR, Dkt. No. 834 (E.D. Wash. Mar. 31, 2020) (releasing defendant one month into a 10 month sentence in light of medical issues; ordinarily these conditions would be manageable but "these are not ordinary times"); *United States v. Marin*, No. 15-cr-252, Dkt. No. 1326 (E.D.N.Y. Mar. 30, 2020) ("[F]or the reasons stated in his motion, including his advanced age, significantly deteriorating health, elevated risk of dire health consequences due to the current COVID-19 outbreak, status as a non-violent offender, and service of 80% of his original sentence."); *United States v. Muniz*, Case No. 4:09-cr-199, Dkt. No. 578 (S.D. Tex. Mar. 30, 2020) (releasing defendant serving 188-month sentence for drug conspiracy in light of vulnerability to COVID-19: "[W]hile the Court is aware of the measures taken by the Federal Bureau of Prisons, news reports of the virus's spread in detention centers within the United States and beyond our borders in China and Iran demonstrate that individuals housed within our prison systems nonetheless remain particularly vulnerable to infection."); *United States v. Bolston*, Case No. 1:18-cr-382-MLB, Dkt. No. 20 (N.D. Ga. Mar. 30, 2020) (releasing defendant in part because "the danger inherent in his continued incarceration at the R.A. Deyton Detention Facility . . . during the COVID-19 outbreak justif[y] his immediate release from custody"); *United States v. Powell*, No. 1:94-cr-316-ESH, Dkt. No. 98 (D.D.C. Mar. 28, 2020) (granting unopposed motion for compassionate release in light of COVID-19 and finding it "would be futile" to require defendant to first exhaust in light of open misdemeanor case); *United States v. Campagna*, 2020 WL 1489829 (S.D.N.Y. Mar. 27, 2020) (compassionate release grant); Order (Doc. No. 662), at 7, *United States v. Copeland*, No. 2:05-cr-135-DCN (D.S.C. Mar. 24, 2020) (granting First Step Act relief to defendant in part due to "Congress's desire for courts to release individuals the age defendant is, with the ailments that defendant has during this current pandemic").

detention and pretrial state detention.[17] And some courts are acting sua sponte to release incarcerated individuals to address this public health emergency.[18]

Congress has also expressed its support for reducing incarceration to mitigate the dangers of COVID-19. The purpose of the CARES Act, which was passed by Congress with unanimous bipartisan support and signed into law by the President on March 27, 2020, is to "[p]rovid[e] emergency assistance and health care response for individuals, families and businesses affected by the 2020 coronavirus pandemic." In the Act, Congress expressed its view that, in response to the pressures of the pandemic, the federal prison population should be reduced by expanding BOP's authority to release inmates to home detention.[19]

III. The BOP Cannot Provide Needed Medical Care

[17] **[Footnote last updated April 27, 2020.]** *See, e.g.*, *Fraihat v. Wolf*, No. 20-CV-590 (C.D. Cal. Mar. 30, 2020) (noting risk of asymptomatic spread and unsafe conditions in immigration detention mean "[t]he balance of equities tip sharply in [Fraihat's] favor" and thus ordering release); *In re Request to Commute or Suspend County Jail Sentences*, Docket No. 084230 (N.J. Mar. 22, 2020) (releasing large class of defendants serving time in county jail "in light of the Public Health Emergency" caused by COVID-19); *Thakker v. Doll*, No. 1:20-cv-480-JEJ (Mar. 31, 2020) (granting TRO releasing high-risk immigration detainees from custody due to the dangers of COVID-19); *Basank v. Decker*, No. 20-cv-2518, (S.D.N.Y. Mar. 26, 2020) ("*[t]he nature* of detention facilities makes exposure and spread of the [coronavirus] particularly harmful" so granting TRO and releasing high-risk plaintiffs); *Coronel v. Decker*, 20-cv-2472-AJN, Dkt. No. 26 (Mar. 27, 2020) (granting TRO and releasing from immigration detention facility in light of COVID-19).

[18] **[Footnote last updated April 27, 2020.]** *See, e.g.*, *Xochihua-James v. Barr*, No. 18-71460 (9th Cir. Mar. 23, 2020) (unpublished) (sua sponte releasing detainee from immigration detention "[I]n light of the rapidly escalating public health crisis"); *United States v Garlock*, No. 18-CR-00418-VC-1, 2020 WL 1439980, at *1 (N.D. Cal. Mar. 25, 2020) (citing "chaos" inside federal prisons in sua sponte extending time to self-surrender: "[b]y now it almost goes without saying that we should not be adding to the prison population during the COVID-19 pandemic if it can be avoided"); *United States v. Avenatti*, No. 8:19-cr-61 (C.D. Cal. Mar. 25, 2020) (sua sponte inviting defendant to move for reconsideration of a just-denied motion for release "[i]n light of the evolving nature of the Covid-19 pandemic").

[19] *See also* Order (Doc. No. 662), at 7, *United States v. Copeland*, 2:05-cr-135-DCN (D.S.C. March 24, 2020) ("Congress has expressed its desire for courts to 'use all available powers and authorities … to reduce the number of federal prisoners in . . . prisons,' especially individuals like defendant" who had underlying conditions).

COVID-19 has not even reached its peak in most regions of the country. Yet the constellation of realities that already exist in the federal prison system is grave: federal inmates and staff are dying from COVID-19; inmates and staff are testing positive for COVID-19 at facilities throughout the country at an exponentially increasing rate; and, according to reports from BOP's own employees, facilities have neither the manpower nor the medical equipment to contain the spread of the virus, treat infected individuals, or properly quarantine individuals.

To fulfill its duty to provide needed medical care in the most effective manner during this pandemic, the BOP must do two things. First, it must prevent the spread of COVID-19 within its facilities so that individuals do not contract the virus. Second, once a person is infected, the BOP must provide appropriate medical care to successfully treat that person and keep [him/her] alive. Unfortunately, BOP has proven it cannot do either. Because BOP cannot provide [CLIENT] with effective medical care, [state relief requested].

BOP cannot/has not prevent[ed] the spread—or even limit[ed]—the spread of COVID-19 in [CLIENT's facility]. COVID-19 is highly infectious and its spread simply cannot be prevented in conditions of confinement. "[O]nly the great influenza pandemic of 1918. . . is thought to have higher infectivity."[20] "Nationally, without effective public health interventions, CDC projections indicate about 200 million

[20] Declaration of Chris Beyrer, MD, MPH ("Beyrer Decl.") ¶ 10 (Exhibit A). This declaration was prepared in connection with litigation unrelated to the instant case, and was previously filed as exhibits to the defendant's Expedited Motion to Revoke Detention Order, No. 1:19-cr-341-DCN (D. Idaho March 18, 2020).

people in the United States could be infected over the course of the epidemic, with as many as 1.5 million deaths in the most severe projections."[21]

"COVID-19 is a serious disease," which "makes certain populations of people severely ill"[22]—including those with [CLIENT's condition/age]. The overall case fatality rate for COVID-19 has been estimated to range from 0.3 to 3.5%, which is 5-35 times the fatality associated with influenza infection," and "varies significantly depending on the presence of certain demographic and health factors."[23] "The case fatality rate is higher in men, and varies significantly with advancing age, rising after age 50, and above 5% (1 in 20 cases) for those with pre-existing medical conditions including cardio-vascular disease, respiratory disease, diabetes, and immune compromise."[24]

"Effective public health measures, including social distancing and hygiene for vulnerable populations, could reduce these numbers."[25] But prisons are "completely

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[21] Declaration of Dr. Jonathan Louis Golob ("Golob Decl.") ¶ 10 (Exhibit B). This declarations was prepared in connection with litigation unrelated to the instant case, and was previously filed as exhibits to the defendant's Expedited Motion to Revoke Detention Order, No. 1:19-cr-341-DCN (D. Idaho March 18, 2020).

[22] Beyrer Decl. ¶ 5; Golob Decl. ¶ 3.

[23] Beyrer Decl.¶¶ 5-6.

[24] Breyer Decl. ¶ 6. *See also* Golob Decl. ¶ 4 ("In the highest risk populations, the case fatality rate is about 15%.").

[25] Golob Decl. ¶ 10.

unequipped to handle this pandemic"[26] because these measures are "extremely difficult to achieve and sustain" in a prison setting.[27] Indeed, conditions of confinement create the ideal environment for the transmission of contagious disease.[28]

> Congregate settings such as jails and prisons allow for rapid spread of infectious diseases that are transmitted person to person, especially those passed by droplets through coughing and sneezing. When people must share dining halls, bathrooms, showers, and other common areas, the opportunities for transmission are greater. When infectious diseases are transmitted from person to person by droplets, the best initial strategy is to practice social distancing. When jailed or imprisoned, people have much less of an opportunity to protect themselves by social distancing than they would in the community. Spaces within jails and prisons are often also poorly ventilated, which promotes highly efficient spread of diseases through droplets. Placing someone in such a setting therefore dramatically reduces their ability to protect themselves from being exposed to and acquiring infectious diseases.[29]

For example, outbreaks of the flu regularly occur in jails, and during the H1N1 epidemic in 2009, many jails and prisons dealt with high numbers of cases.[30] "Given

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[26] Robin McDowell & Margie Mason, *Locked up: No Masks, Sanitizer as Virus Spreads Behind Bars*, APNews / SFGate (Mar. 29, 2020), https://www.sfgate.com/news/medical/article/Fear-behind-bars-as-the-coronavirus-spreads-15163433.php.

[27] Beyrer Decl. ¶ 17 ("While every effort should be made to reduce exposure in detention facilities, this may be extremely difficult to achieve and sustain.").

[28] Joseph A. Bick, *Infection Control in Jails and Prisons*, 45 Clinical Infectious Diseases 1047-155 (2007), https://doi.org/10.1086/521910.

[29] Declaration of Dr. Jaimie Meyer, MD, ¶ 9 (Exhibit C). This declaration was prepared in connection with litigation unrelated to the instant case, and was previously filed as an exhibit to petitioner's Motion for Preliminary Injunction, Doc. 42., *Velesaca v. Wolf* et. al, 1:20-cv-01803-AKH (S.D.N.Y. Mar. 16, 2020).

[30] *Prisons and Jails are Vulnerable to COVID-19 Outbreaks*, The Verge (Mar. 7, 2020), https://www.theverge.com/2020/3/7/21167807/coronavirus-prison-jail-health-outbreak-covid-19-flu-soap.

the experience in China as well as the literature on infectious diseases in jail, an outbreak of COVID-19 among the U.S. jail and prison population is likely."[31]

Even in the best of times, prisons and jails have "long been known to be associated with high transmission probabilities of infectious diseases."[32] Incarcerated individuals "are at special risk of infection" and "infection control is challenging." [33] Prisons and jails "contain high concentrations of people in close proximity and are breeding grounds for uncontrolled transmission [of infection]."[34] Incarcerated individuals share bathrooms, sinks, and showers. They eat together, and sleep in close proximity to each other. They often lack access to basic hygiene items, much less the ability to regularly disinfect their living quarters.[35] And the

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[31] Beyrer Decl. ¶ 19 (*See* Rhea Mahbubani, *Chinese Jails Have Become Hotbeds of Coronavirus As More Than 500 Cases Have Erupted, Prompting the Ouster of Several Officials*, Business Insider (Feb. 21, 2020), at https://www.businessinsider.com/500-coronavirus-cases-reported-in-jails-in-china-2020-2).

[32] Letter from Patricia Davidson, Dean, Johns Hopkins School of Nursing, et al., to Hon. Larry Hogan, Governor of Maryland (Mar. 25, 2020), https://bioethics.jhu.edu/wp-content/uploads/2019/10/Johns-Hopkins-faculty-letter-on-COVID-19-jails-and-prisons.pdf (co-signed by over 200 faculty members of Johns Hopkins Bloomberg School of Public Heath, School of Nursing, and School of Medicine) ("Johns Hopkins Letter").

[33] Open Letter from Gregg S. Gonsalves, Assistant Professor, Department of Epidemiology of Microbial Diseases, Yale School of Public Health, et al. to Vice President Mike Pence and Other Federal, State and Local Leaders 4 (Mar. 2, 2020), https://law.yale.edu/sites/default/files/area/center/ghjp/documents/final_covid-19_letter_from_public_health_and_legal_experts.pdf (co-signed by 814 experts in public health, law and human rights); *see also* Joseph A. Bick, *Infection Control in Jails and Prisons*, 45 Clinical Infectious Diseases 1047-155 (2007), https://doi.org/10.1086/521910.

[34] Letter from Dr. Sandro Galea, Dean, Boston University School of Public Health, et al., to President Trump 1 (Mar. 27, 2020), https://thejusticecollaborative.com/wp-content/uploads/2020/03/Public-Health-Expert-Letter-to-Trump.pdf (co-signed by numerous public health officials from leading medical and public health institutions) ("Public Health Experts' Letter").

[35] *See e.g.*, David Patton, Exec. Director, *Statement from Federal Defenders of New York*, Federal Defenders of New York (Mar. 8, 2020), https://federaldefendersny.org/about-us/news/statement-from-federal-defenders-of-new-york.html; Public Health Experts' Letter, at 1; Timothy Williams et al., *'Jails Are Petri Dishes': Inmates Freed as the Virus Spreads Behind Bars*, NY Times (Mar. 30, 2020), https://www.nytimes.com/2020/03/30/us/coronavirus-prisons-jails.html) ("*Jails Are Petri Dishes*");

BOP is overcrowded: Low, medium, and high facilities are all operating at overcapacity and BOP's total inmate population exceeds the rated capacity of its prisons by an average of 12 to 19 percent.[36] "The conditions and reality of incarceration makes prisons and jails tinderboxes for the spread of disease."[37] In short, "our jails are petri dishes"[38]

Further, now that people are sick, BOP does not have the capacity or equipment to treat them. "Most people in the higher risk categories," who contract COVID-19 "will require more advanced support: positive pressure ventilation, and in extreme cases, extracorporeal mechanical oxygenation. Such care requires highly specialized equipment in limited supply as well as an entire team of care providers, including but not limited to 1:1 or 1:2 nurse to patient ratios, respiratory therapists and intensive care physicians."[39] "For high risk patients who do not die from COVID-19, a prolonged recovery is expected to be required, including the need for

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Brie Williams et al., *Correctional Facilities in the Shadow of COVID-19: Unique Challenges and Proposed Solutions*, Health Affairs Blog (Mar. 26, 2020), https://www.healthaffairs.org/do/10.1377/hblog20200324.784502/full/ ("*Unique Challenges*"); *see also* Keegan Hamilton, *Sick Staff, Inmate Transfers, and No Tests How the U.S. is Failing Federal Inmates as Coronavirus Hits*, Vice (Mar. 24, 2020) https://www.vice.com/en_us/article/jge4vg/sick-staff-inmate-transfers-and-no-tests-how-the-us-is-failing-federal-inmates-as-coronavirus-hits ("*Sick Staff*") (noting access to hand sanitizer varies by facility).

[36] *See* Fed. Bureau of Prisons, *Federal Bureau of Prisons Program Fact Sheet* (rev. July 31, 2019), .https://www.bop.gov/about/statistics/docs/program_fact_sheet_20191004.pdf.; *see also* U.S. Dep't of Justice, *FY2020 Performance Budget Congressional Submission Federal Prison Systems Buildings and Facilities* 3, https://www.justice.gov/jmd/page/file/1144631/download (last visited Apr. 1, 2020).

[37] Kindy, *Explosions of Coronavirus Cases* (quoting Udi Ofer, director of the American Civil Liberties Union's Justice Division).

[38] Williams, *"Jails Are Petri Dishes"*.

[39] Golob Decl. ¶ 6.

extensive rehabilitation for profound deconditioning, loss of digits, neurological damage, and loss of respiratory capacity."[40]

The BOP simply does not have the staff or facilities to respond to this crisis humanely. Indeed, BOP has proven incapable of protecting the people within its walls—even on an ordinary day.[41] In 2016, DOJ's Office of Inspector General (OIG) found that BOP experienced chronic medical staff shortages and failed to take adequate measures to address them, endangering the safety and security of its institutions.[42] From 2010 to 2014, BOP's total medical staff was "approximately 17 percent less than what the BOP projected was necessary to provide what it considers to be 'ideal' care," and 12 institutions were so medically understaffed that they were described as "crisis level."[43] Lack of adequate staffing has resulted in medical personnel and other non-correctional staff working as guards,[44] and has

[40] Golob Decl. ¶ 4.

[41] *See, e.g.*, U.S. Dep't of Justice Office of the Inspector General, *Review of the Federal Bureau of Prisons' Medical Staffing Challenges* (Mar. 2016), https://oig.justice.gov/reports/2016/e1602.pdf ("*Medical Staffing Challenges*"); U.S. Dep't of Justice Office of the Inspector General, *The Impact of an Aging Inmate Population on the Federal Bureau of Prisons* (Rev. Feb. 2016), https://oig.justice.gov/reports/2015/e1505.pdf ("*Aging Inmate Population*").

[42] *Medical Staffing Challenges*, at i, 1-2.

[43] *Id.* at 1.

[44] *See Oversight of the Federal Bureau of Prisons and Implementation of the First Step Act of 2018: Hearing before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 115th Cong. 2-4 (2019) (statement of Kathleen Hawk Sawyer, Director, Fed. Bureau of Prisons), https://docs.house.gov/meetings/JU/JU08/20191017/110089/HHRG-116-JU08-Wstate-SawyerK-20191017.pdf; Hamilton, *Sick Staff*.

made wait times for individuals to receive even routine medical care unacceptably long.[45]

[Insert if Client has AGE risk factor] Moreover, BOP's care for its rapidly aging population—a population that is at grave risk for complications from COVID-19—has been woefully inept.[46] According to OIG, BOP lacks appropriate staffing levels and infrastructure to address the needs of aging inmates.[47] Overcrowding prevents BOP from placing aging individuals in facilities that best address their medical needs.[48] Aging persons could wait years for routine medical equipment like eyeglasses or dentures.[49] These overcrowded and understaffed facilities cannot provide routine care on a good day, let alone during a global pandemic.

Correctional experts agree that "America's 7,000 jails, prisons, juvenile and immigration detention centers are completely unequipped to handle this pandemic,"[50] and absent swift action, we will "see devastation that is

[45] *See Aging Inmate Population*, at 17-19.

[46] *See* CDC, *People at Higher Risk for Severe Illness*.

[47] *See Aging Inmate Population*, at i-ii.

[48] *See id.* at 25-26.

[49] *See id.* at 17-19. One incarcerated individual requested dentures in 2010 and had still not received them when he was interviewed by OIG years later. He said "this makes it extremely hard to eat because he cannot chew food." *Id.* at 18. Another aging person had waited two years for an eye examination and was using a magnifying glass in the interim. *Id.* at 19.

[50] Robin McDowell & Margie Mason, *Locked up: No Masks, Sanitizer as Virus Spreads Behind Bars*, APNews / SFGate (Mar. 29, 2020), https://www.sfgate.com/news/medical/article/Fear-behind-bars-as-the-coronavirus-spreads-15163433.php.

unbelievable."[51] Rikers Island may be the canary in the coalmine for the BOP and other prison systems during this pandemic. Rikers Island, a New York State correctional institution, did not heed expert advice to rapidly reduce its prison population.[52] COVID-19 has infected the institution at an exponential rate:[53] Rikers now suffers an infection rate that is five times higher than the rest of New York City and is thirty-four times higher than the United States.[54] Rikers is no outlier. The Cook County jail in Chicago went from two positive COVID-19 cases to 101 confirmed cases in a week.[55] The progression of COVID-19 in these facilities is a harbinger of what will happen within the federal prison system as the virus continues to spread.

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[51] David Montgomery, *'Prisons are Bacteria Factories'; Elderly Most at Risk*, Stateline, PewTrusts (Mar. 25, 2020), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/03/25/prisons-are-bacteria-factories-elderly-most-at-risk.

[52] *See* Jean Casella & Katie Rose Quandt, *US Jails Will Become Death Traps in the Coronavirus Pandemic*, The Guardian (Mar. 30, 2020), https://www.theguardian.com/commentisfree/2020/mar/30/jails-coronavirus-us-rikers-island ("From a public health and public safety standpoint, the solution to this crisis is quite simple: let them go.").

[53] *See, e.g.*, Katie Shepard, *'Trapped on Rikers': Jails and Prisons Face Coronavirus Catastrophe as Officials Slowly Authorize Releases*, Wash. Post (Mar. 23, 2020), https://www.washingtonpost.com/nation/2020/03/23/coronavirus-rikers-island-releases/ (noting that the chief physician for Rikers Island warned "a storm is coming . . . We have told you who is at risk. Please let as many people out as you possibly can."); Chelsea Rose Marcius, *Coronavirus Has Left Nearly 800 Inmates Quarantined in NYC Jails*, New York Daily News (Mar. 29, 2020), https://www.nydailynews.com/coronavirus/ny-coronavirus-quarantine-inmates-city-jails-rikers-island-20200329-r4ozbsavc5c35bhkqk6zuwm35y-story.html; *see also* Meagan Flynn, *Top Doctor at Rikers Island Calls the Jail a 'Public Health Disaster Unfolding Before our Eyes*, Wash. Post (Mar. 31, 2020), https://www.washingtonpost.com/nation/2020/03/31/rikers-island-coronavirus-spread/.

[54] *See* The Legal Aid Society, *COVID-19 Infection Tracking in NYC Jails*, https://legalaidnyc.org/covid-19-infection-tracking-in-nyc-jails/ (last visited Apr. 26, 2020). The infection rate in Rikers is also exponentially higher than the rates in Wuhan, China and Lombardy, Italy.

[55] *See* Williams, '*Jails are Petri Dishes*'.

IV. Arguments for Clients at Higher Risk for Severe Illness Due to Age and/or Underlying Conditions

The CDC has issued guidance that individuals at higher risk of contracting COVID-19 – older adults and people of any age who have serious underlying medical conditions such as chronic lung disease or moderate to severe asthma, heart disease, diabetes, severe obesity, and people who are immunocompromised (including from cancer treatment, smoking, bone marrow or organ transplantation, poorly controlled HIV or AIDS, prolonged use of corticosteroids and other immune-weakening medications)[56] – take immediate preventative actions, including staying home, washing hands often, and avoiding close quarters.[57] Such precautions are not possible in the BOP.

[IF CLIENT IS OLDER:]

CDC reports that "8 out of 10 deaths [in the United States] . . . have been in adults 65 years old and older" and "31-59% of adults 65-84 years old with confirmed COVID-19 have required hospitalization."[58] This trend maintains globally and in the BOP: the regional director for WHO Europe has reported that "95% of COVID-

[56] Centers for Disease Control and Prevention, *People Who Are at Higher Risk for Severe Illness*, https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html (CDC, *People at Higher Risk for Severe Illness*) (last visited Apr. 1, 2020).

[57] Centers for Disease Control and Prevention, *What You Can Do*, https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/what-you-can-do.html (last visited Apr. 1, 2020).

[58] Centers for Disease Control and Prevention, *Coronavirus Disease 2019 (COVID-19): Older Adults*, https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html (last visited Mar. 21, 2020).

19 fatalities on the continent have been people older than 60" and "more than 50% of all deaths in Europe were people aged 80 or older"[59] and the BOP has reported that of the 27 individuals who died from COVID-19 while in its custody, 22 were age 50 or older.[60] Based on a study that "examined data from individuals who tested positive for COVID-19 in 38 countries[,] . . . risk of death from the disease rose with each decade of age."[61] "The chance that a COVID-19 patient would develop symptoms severe enough to require hospitalization, especially for respiratory support, also rose sharply with age."[62]

COVID-19 is caused by a new coronavirus and "[o]lder people are not as good at reacting to microorganisms they haven't encountered before."[63] "With advancing age, the body has fewer T cells, which produce virus-fighting chemicals. By puberty, the thymus is producing tenfold fewer T cells than it did in childhood" and "by age 40 or 50, there is another tenfold drop."[64] "That leaves the body depleted of

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[59] Alex Lardieri, *WHO: Nearly All Coronavirus Deaths in Europe Are People Aged 60 and Older*, U.S. News & World Rep. (Apr. 2, 2020), https://www.usnews.com/news/world-report/articles/2020-04-02/who-nearly-all-coronavirus-deaths-in-europe-are-people-aged-60-and-older.

[60] *See* Fed. Bureau of Prisons, *BOP News Stories* https://www.bop.gov/resources/news_stories.jsp (last visited Apr. 26, 2020).

[61] Erin Schumaker, Risk for Severe COVID-19 Increases with Each Decade of Age, ABC News (Apr. 1, 2020), https://abcnews.go.com/Health/risk-severe-covid-19-increases-decade-age/story?id=69914642.

[62] Sharon Begley, *What Explains Covid-19's Lethality for the Elderly? Scientists Look to 'Twilight' of the Immune System*, Stat News (Mar. 30, 2020), https://www.statnews.com/2020/03/30/what-explains-coronavirus-lethality-for-elderly/ ("Begley, *What Explains Covid-19's Lethality for the Elderly?*").

[63] Begley, *What Explains Covid-19's Lethality for the Elderly?*

[64] Begley, *What Explains Covid-19's Lethality for the Elderly?*

T cells" that would, in a younger person, "be deployed against a never-before-seen microbe" such as the novel coronavirus.[65]

Due to reduced immunity, when an older person contracts a virus it "is likely to stick around and cause complications."[66] "[G]enerally, people aged 65 and over are at risk of getting pneumonia, as well as people with medical conditions such as diabetes, cancer or a chronic disease affecting the lungs, heart, kidney or liver, smokers, . . . and infants aged 12 months and under."[67] "[T]here is evidence that pneumonia caused by COVID-19 may be particularly severe" because "cases of coronavirus pneumonia tend to affect all of the lungs, instead of just small parts."[68] "[T]he body's response is first to try and destroy [the virus] and limit its replication."[69] But the immune response "can be impaired in some groups, including people with underlying heart and lung conditions, diabetes and the

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[65] Begley, *What Explains Covid-19's Lethality for the Elderly?*

[66] *What Heart Patients Should Know about Coronoavirus*, Am. Heart Ass'n News (Mar. 24, 2020), https://www.heart.org/en/news/2020/02/27/what-heart-patients-should-know-about-coronavirus ("*What Heart Patients Should Know,* Am. Heart Ass'n News").

[67] Graham Readfearn, *What Happens to People's Lungs When They Get Coronavirus?*, The Guardian (Apr. 1, 2020), https://www.theguardian.com/world/2020/apr/01/what-happens-to-peoples-lungs-when-they-get-coronavirus-acute-respiratory-covid-19 ("Readfearn, *What Happens to People's Lungs?*").

[68] Readfearn, *What Happens to People's Lungs?*

[69] Readfearn, *What Happens to People's Lungs?*

elderly."[70] Indeed, "[a]ge is the major predictor of risk of death from pneumonia" and "[p]neumonia is always serious for an older person."[71]

[IF CLIENT HAS ANY UNDERLYING CONDITIONS OTHER THAN AGE:]

According to a recent analysis by the CDC, "people with chronic conditions including diabetes, lung disease and heart disease appear to be at higher risk of severe illness from COVID-19."[72] The report revealed "78% of COVID-19 patients in the U.S. requiring admission to the intensive care unit had at least one underlying condition. And 94% of hospitalized patients who died had an underlying condition."[73] "Among COVID-19 patients admitted to the ICU, 32% had diabetes, 29% had heart disease and 21% had chronic lung disease, which includes asthma, COPD and emphysema. In addition, 37% had other chronic conditions including hypertension or a history of cancer."[74] The BOP has reported that of the 27 individuals who died from COVID-19 while in custody, all had "pre-existing medical conditions."[75]

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[70] Readfearn, *What Happens to People's Lungs?*

[71] Readfearn, *What Happens to People's Lungs?*

[72] Allison Aubrey, *Who's Sickest from COVID-19? These Conditions Tied to Increased Risk*, NPR (Mar. 31, 2020), https://www.npr.org/sections/coronavirus-live-updates/2020/03/31/824846243/whos-sickest-from-covid-19-these-conditions-tied-to-increased-risk ("Aubrey, *Who's Sickest from COVID-19?*").

[73] Aubrey, *Who's Sickest From COVID-19?*

[74] Aubrey, *Who's Sickest From COVID-19?*

[75] *See* Fed. Bureau of Prisons, *BOP News Stories* https://www.bop.gov/resources/news_stories.jsp (last visited Apr. 26, 2020).

[IF UNDERLYING CONDITION IS HEART DISEASE:]

"[P]eople with heart conditions really are at high risk of developing complications."[76] "Of the first 44,672 diagnosed COVID-19 cases in China, patients with cardiovascular diseases had the highest fatality rate, at 10.5%. Other heart conditions include previous heart attacks or strokes."[77] "When the coronavirus enters your body and gets down to your lungs, what it does is stop the lungs effectively passing oxygen through into the blood, and so the heart has to work harder to pump that blood, which has less oxygen in it," through the body, and if there is "an underlying heart condition, that will put excess strain on [the] heart and lead to further complications."[78] By "taxing the system as a whole," the virus "could exacerbate problems for someone with heart failure, where the heart is already having problems pumping efficiently."[79]

When infected with COVID-19, "the lungs turn grey all over as the infection works from the outer air sacs of the lungs. Fluid, pus and debris build. And patients develop Acute Respiratory Distress Syndrome [ARDS]."[80] "There is no cure for ARDS. Ventilators buy time as the body tries to heal but the lack of oxygen and the

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[76] Emmanuel Ocbazghi, *How COVID-19 Affects People with Diabetes, Cancer, and Other Conditions*, Bus. Insider (Apr. 2, 2020), https://www.businessinsider.com/how-covid-19-affects-conditions-diabetes-asthma-cancer-underlying-copd-2020-3 ("Ocbazghi, *How COVID-19 Affects People*").

[77] Ocbazghi, *How COVID-19 Affects People.*

[78] Ocbazghi, *How COVID-19 Affects People.*

[79] *What Heart Patients Should Know,* Am. Heart Ass'n News.

[80] Katharin Czink, et al., *Why COVID-19 Is So Dangerous for the Heart*, WGNTV (Mar. 30, 2020), https://wgntv.com/news/medical-watch/why-covid-19-is-so-dangerous-for-the-heart/ ("Czink, *Why COVID-19 Is So Dangerous*").

assault on the body put a tremendous strain on the heart. Many patients develop heart failure. Those with weak hearts to begin with are most at risk."[81]

"A virus also may pose a special risk for people who have the fatty buildup known as plaque in their arteries" and "[e]vidence indicates similar viral illnesses can destabilize these plaques, potentially resulting in the blockage of an artery feeding blood to the heart, putting patients at risk of heart attack."[82] "Someone with an underlying heart issue also might have a less robust immune system" and when they catch a virus "it's likely to stick around and cause complications."[83] "When a patient gets infected with something like this coronavirus, the fever causes a spike in the heart rate. Shortness of breath means the patient gets less oxygen. People with limited cardiac capacity can go into arrest."[84]

[IF UNDERLYING CONDITION IS DIABETES]

"Diabetes is a metabolic syndrome that involves blood glucose levels," weakening the immune system and making "it less effective."[85] Due to a weakened immune system, people with diabetes "are at risk for many infections[,] not just

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[81] Czink, *Why COVID-19 Is So Dangerous*.

[82] *What Heart Patients Should Know,* Am. Heart Ass'n News.

[83] *What Heart Patients Should Know,* Am. Heart Ass'n News.

[84] Joel Achenbach, et al., *New CDC Data Shows Danger of Coronavirus for those With Diabetes, Heart or Lung Disease, Other Chronic Conditions*, Wash. Post (Mar. 31, 2020), https://www.washingtonpost.com/health/new-cdc-data-on-underlying-health-conditions-in-coronavirus-patients-who-need-hospitalization-intensive-care/2020/03/31/0217f8d2-7375-11ea-85cb-8670579b863d_story.html ("Achenbach, *New CDC Data Shows Danger of Coronavirus"*).

[85] Achenbach, *New CDC Data Shows Danger of Coronavirus*.

coronavirus."[86] For example, "[t]hey often struggle with infections on their skin and soft tissues, with pneumonia and even more serious conditions."[87]

People with diabetes have a "higher risk of developing complications" from COVID-19 because "[h]igh levels of blood sugar over a long period of time can actually depress your immune system, so it doesn't respond as quickly to the virus."[88] That buys the virus "more time to replicate, get down to [the] lungs, and cause . . . [breathing] problems . . . that can lead to needing hospital treatment."[89] With COVID-19, "the lungs turn grey all over as the infection works from the outer air sacs of the lungs. Fluid, pus and debris build. And patients develop Acute Respiratory Distress Syndrome [ARDS]."[90] "There is no cure for ARDS. Ventilators buy time as the body tries to heal but the lack of oxygen and the assault on the body put a tremendous strain on the heart. Many patients develop heart failure."[91]

Diabetics also face a higher risk of developing pneumonia.[92] "[T]here is evidence that pneumonia caused by COVID-19 may be particularly severe" because "cases of coronavirus pneumonia tend to affect all of the lungs, instead of just small

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[86] Achenbach, *New CDC Data Shows Danger of Coronavirus.*

[87] Achenbach, *New CDC Data Shows Danger of Coronavirus.*

[88] Ocbazghi, *How COVID-19 Affects People.*

[89] Ocbazghi, *How COVID-19 Affects People.*

[90] Czink, *Why COVID-19 Is So Dangerous.*

[91] Czink, *Why COVID-19 Is So Dangerous.*

[92] Readfearn, *What Happens to People's Lungs?*

parts."[93] "[T]he body's response is first to try and destroy [the virus] and limit its replication."[94] "But," the immune response "can be impaired in some groups, including people with underlying heart and lung conditions, diabetes and the elderly."[95] "In fact, . . . the cause of most deaths from influenza [is] not the flu virus itself, but a secondary bacterial infection (often pneumonia)."[96]

[IF UNDERLYING CONDITION IS OBESITY]

People with obesity are more susceptible to contracting viruses and prone to complications from these viruses. "Obesity can increase inflammation and weaken a person's immune system, making it more difficult to combat infections."[97] "Excessive weight, and the poor-quality diet that causes it, is strongly associated with insulin resistance, chronic inflammation and other abnormalities that may lower immunity to viral respiratory infection or predispose to complications."[98] "In general, patients with severe obesity are a more challenging population to manage

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[93] Readfearn, *What Happens to People's Lungs?*

[94] Readfearn, *What Happens to People's Lungs?*

[95] Readfearn, *What Happens to People's Lungs?*

[96] Avery Miles, *What You Need to Know About Living With a Compromised Immune System During COVID-19 Outbreak*, Everyday Health (Mar. 16, 2020), https://www.everydayhealth.com/infectious-diseases/what-you-need-to-know-about-living-with-a-compromised-immune-system-during-covid-19-outbreak/.

[97] Dawson White, *Are People Who Are Obese at Higher Risk of Coronavirus? Here's What Experts Say*, Miami Herald (Mar. 26, 2020), https://www.miamiherald.com/news/coronavirus/article241523151.html ("White, *Obese at Higher Risk*").

[98] David S. Ludwig, *Americans Are Already Too Diseased to Go Back to Work Right Now*, N.Y. Times (Mar. 30, 2020) https://www.nytimes.com/2020/03/30/opinion/obesity-us-health-coronavirus.html.

in the intensive care setting" and "will have less physiologic reserve if they develop any severe illness, particularly a respiratory infection like COVID-19."[99] "Extra weight can also put pressure on the lungs and make it more difficult to breathe, making complications from COVID-19 — a respiratory illness — more likely."[100]

[IF UNDERLYING CONDITION IS CHRONIC LUNG DISEASE (ASTHMA/COPD/SMOKING/EMPHYSEMA)]

"People with moderate to severe asthma may be at higher risk of getting very sick from COVID-19" because "COVID-19 can affect your respiratory tract (nose, throat, lungs), cause an asthma attack, and possibly lead to pneumonia and acute respiratory disease."[101] The coronavirus "attacks the edges of the lungs" and "[w]ith asthma, anything that's foreign or unusual that enters the lungs often triggers an asthmatic response and causes the airways to narrow further and . . . become wheezy."[102]

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[99] Abby Haglage, *Obesity May Be Fueling Coronavirus Hospitalizations — An Expert Explains Why*, Yahoo Lifestyle (Apr. 2, 2020), https://www.yahoo.com/lifestyle/obesity-may-be-fueling-coronavirus-hospitalizations-expert-explains-why-194605061.html.

[100] White, *Obese at Higher Risk*.

[101] Centers for Disease Control and Prevention, *Coronavirus Disease 2019 (COVID-19): People with Moderate to Severe Asthma*, https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/asthma.html (last visited Apr. 2, 2020); *see also* David Levine, *Coronavirus and Asthma*, U.S. News & World Rep. (Mar. 27, 2020) https://health.usnews.com/conditions/articles/coronavirus-and-asthma.

[102] Ocbazghi, *How COVID-19 Affects People*.

"Like influenza and the common cold, coronavirus can cause an upper respiratory infection, which can make breathing difficult. That puts those who already have respiratory ailments, such as chronic obstructive pulmonary disease, or COPD, at a higher risk for severe and potentially life-threatening complications."[103] When COVID-19 "venture[s] deeper into the lungs" the "results [are] pneumonia-like symptoms, requiring hospitalization and sometimes intubation on a ventilator. People who smoke or have chronic lung conditions are especially vulnerable."[104]

"[T]here is evidence that pneumonia caused by COVID-19 may be particularly severe" because "cases of coronavirus pneumonia tend to affect all of the lungs, instead of just small parts."[105] "[T]he body's response is first to try and destroy [the virus] and limit its replication."[106] "But," the immune response "can be impaired in some groups, including people with underlying . . . lung conditions. . . ."[107]

[IF UNDERLYING CONDITION IS BEING IMMUNOCOMPROMISED]

The CDC has identified a compromised immune system as an underlying condition that increases the risk of contracting COVID-19. [CLIENT is

[103] Levine, *Coronavirus and Asthma.*

[104] Achenbach, *New CDC Data Shows Danger of Coronavirus.*

[105] Readfearn, *What Happens to People's Lungs?*

[106] Readfearn, *What Happens to People's Lungs?*

[107] Readfearn, *What Happens to People's Lungs?*

immunocompromised because s/he is (e.g., older, pregnant, has a chronic condition that affects her/his immune system, such as cancer, or takes certain medications, such as some cancer treatments or medicines taken after an organ transplant, that weaken the immune system, etc.[108]).] An "impaired immune system has a weakened ability to fight infections," making immunocompromised people "more likely to contract the novel coronavirus and die from it."[109] An immunocompromised person "may not be able to fight off a potentially deadly bacterial infection," such as pneumonia.[110] "[T]here is evidence that pneumonia caused by COVID-19 may be particularly severe. . . . [C]ases of coronavirus pneumonia tend to affect all of the lungs, instead of just small parts." "In fact, . . . the cause of most deaths from influenza [is] not the flu virus itself, but a secondary bacterial infection (often pneumonia)."[111]

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[108] Cleveland Clinic, *FAQs: What You Should Know About COVID-19 and Chronic Medical Conditions* (Mar. 17, 2020), https://health.clevelandclinic.org/faqs-what-you-should-know-about-covid-19-and-chronic-medical-conditions/; Lisa Esposito, *Immunocompromised and Coronavirus: How to Protect Yourself*, U.S. News & World Rep. (Mar. 27, 2020), https://health.usnews.com/conditions/articles/immuncompromised-and-coronavirus-how-to-protect-yourself.

[109] Catherine Kim, Immunocompromised People Are Anxious about Being Left Behind in the Coronavirus Pandemic, Vox (Mar. 27, 2020) https://www.vox.com/identities/2020/3/27/21195024/immunocompromised-coronavirus-covid19-trump.

[110] Miles, *Compromised Immune System During COVID-19 Outbreak*.

[111] Miles, *Compromised Immune System During COVID-19 Outbreak*.