SUBJECT: TECHNICAL OPINION ON THE HEALTH CONDITIONS INSIDE THE PRISONS IN RELATION TO THE COVID-19 PANDEMIC

PLAINTIFF: CENTRO DE DERECHOS HUMANOS MIGUEL AGUSTÍN PRO JUÁREZ A.C. (Human Rights Center Miguel Agustín Pro Juárez A.C.)

ACTING DISTRICT JUDGE IN THE STATE OF MORELOS, WITH RESIDENCE IN CUERNAVACA

We, Fernando Alarid-Escudero, PH.D., Héctor Gómez-Dantés, MD MSC., Gregg Gonsalves, PH.D., JADD, Ranit Mishori, M.D, MHS, FAAFP., Michele Heisler, MD, MPA, by this means send you this technical opinion on the health conditions inside the prisons in relation to the COVID-19 pandemic, to be considered at the time of addressing the demand to which this opinion is attached.

RELEVANT BACKGROUND AND QUALIFICATIONS

Fernando Alarid-Escudero, Ph.D., Assistant Professor
Center for Research and Teaching in Economics (CIDE), Division of Public Administration

1. I am an Assistant Professor at the Division of Public Administration at the Center for Research and Teaching in Economics. I co-founded the Stanford-CIDE Coronavirus Simulation Model (SC-COSMO) working group (sc-cosmo.org), a simulation epidemic model of the COVID-19 epidemic that provides policy makers with insights into the impact of different mitigation strategies and policy decisions on health outcomes. I am also a member of the US National Cancer Institute' (NCI) Cancer Intervention and Surveillance Modeling Network (CISNET), a consortium of NCI-sponsored investigators that focuses on modeling to improve our understanding of the impact of cancer control interventions (e.g., prevention, screening, and treatment) on population trends in incidence and mortality. I am a founding member of the Decision Analysis in R for Technologies in Health (DARTH) workgroup (http://darthworkgroup.com) and the Collaborative Network for Value of Information (ConVoI; https://www.convoi-group.org), which are international and multi-institutional collaborative efforts where we develop transparent and open-source solutions to implement decision analysis for health policy analysis and to efficiently quantify the value of potential

future research. In 2020, I was a Society for Medical Decision Making (SMDM) COVID-19 Decision Modeling Initiative grantee (https://nursing.jhu.edu/alumni-giving/giving/covid-decision-modeling/smdm-covid-19-decision-modeling-grant.html) to address the SARS-CoV-2 epidemic in Mexico.

2. I have worked on developing simulation models to identify optimal prevention, control and treatment strategies of different infectious and chronic diseases to address health problems in different settings and countries. For example, I developed a simulation model of H. pylori infection and gastric cancer, which I used to estimate the cost-effectiveness of different screen-and-treat strategies of H. pylori accounting for antibiotic resistance. I also developed a mathematical model of HPV infection and cervical cancer to evaluate different screening and vaccination strategies in average-risk and immunosuppressed women. More recently, I co-developed the SC-COSMO model, a simulation epidemic model of the COVID-19 epidemic that provides policy makers with insights into the impact of different mitigation strategies and policy decisions on health outcomes. As part of SC-COSMO, we are developing a transmission dynamic microsimulation of a prison's incarcerated population and correctional workers that is embedded within a simplified model of the surrounding community.

3. I am not being compensated for my work on this case.

Héctor Gómez-Dantés MD MSc. Researcher and Professor at the National Institute of Public Health (INSP) in Mexico

4. I am a senior medical researcher in infectious diseases and coordinator at the INSP of the Nationl Burden of Disease study in collaboration with the Global Burden of Disease initiative at the Institute of Health Metrics and Evaluation (IHME) in the Washington University. I receive my medical degree from the Faculty of Medicine of the National Autonomous University of Mexico (UNAM). I receive the degree as epidemiologist from the Field Epidemiology Training Program (FETP) from CDC and the Ministry of Health in Mexico, a master´s degree in Community Medicine from the London School of Hygiene and Tropical Medicine and a master's degree in International Health from the Johns Hopkins Bloomberg School of Public Health, focusing on the prevention and control of infectious diseases.

5. I have been in charge of the surveillance of infectious diseases at the ministry of health and responsible of the health information system in the Mexican Social Security Institute (IMSS). I also worked in the Mexican Health Foundation coordinating regional studies of burden of disease for Latin America.

6. I am the faculty member at the post graduate courses at INSP in epidemiology, burden of disease, infectious disease control and public health priorities with emphasis in social determinants. I recently got involved in the study of the burden of injuries and violence in

Mexico particularly violence against young women as well as their pattern of drug abuse.

7. I am not being compensated for my work on this case.

Gregg Gonsalves, Ph.D., Assistant Professor in Epidemiology of Microbial Diseases; Associate Professor of Law and Research Scholar in Law
Yale School of Medicine, Yale Law School

8. I am an Assistant Professor in Epidemiology of Microbial Diseases at the Yale School of Public Health and an Associate Professor of Law and Research Scholar in Law at Yale Law School. I co-direct the Yale Law School/Yale School of Public Health Global Health Justice Partnership. I was the Co-Director of the Yale Law School/Yale School of Public Health/Yale Medical School Collaboration on Research Integrity and Transparency and the Co-Faculty Director of Global Health Studies at Yale College until May 2020. Among others, I also have held appointments at Harvard Medical School, the Institut Pasteur, and the University of Cape Town. I attended Yale College and received a PhD in public health from Yale University. In 2018, I received a MacArthur "genius" grant (i.e. MacArthur Fellowship) from the John D. and Catherine T. MacArthur Foundation.

9. I have worked for over three decades on epidemic diseases, including HIV/AIDS and other global health problems. My research has focused on the use of quantitative models to improve our response to epidemic diseases. I have published over a dozen articles on epidemic disease, including in The Lancet, Science, the New England Journal of Medicine, and the Journal of Clinical Epidemiology. I have received grants for my research from, among others, the National Institute of Allergy and Infectious Diseases, the National Institute on Mental Health, the National Institute on Drug Abuse, the Laura and John Arnold Foundation, the Levi-Strauss Foundation, and the Open Society Foundations. The total amount of the grants on which I have served as principal investigator or co-principal investigator is over $5.5 million (USD).

10. I am not being compensated for my work on this case.

Michele Heisler, MD, MPA, Professor of Internal Medicine and Public Health, University of Michigan Medical School, University of Michigan School of Public Health; Medical Director of Physicians for Human Rights (PHR), New York, NY

11. I am Dr. Michele Heisler. I am a physician licensed in the State of Michigan and a diplomate of the American Board of Internal Medicine. I am Medical Director of Physicians for Human Rights (PHR) and Professor of Internal Medicine and Public Health at the University of Michigan and provide clinical care at the University of Michigan Health System and the Veteran's Affairs Health System in Ann Arbor, MI. I have been on the faculty and practicing medicine at the above health systems since 2002.

12. I am a graduate of Harvard Medical School. I have a master's degree in Public Policy from Princeton University's School of Public and International Affairs. My clinical training (residency and fellowship) was at the University of Michigan Health System in Internal Medicine. I then completed additional fellowship research training as a Robert Wood Johnson Foundation Clinical Scholar at the University of Michigan. In my clinical work caring for low-income Veterans, many of my patients have multiple chronic diseases and behavioral disorders, with a high percentage of formerly incarcerated individuals. I am well trained in caring for complex patients at high risk from severe illness if infected with COVID-19.

13. I have twenty years of experience leading large-scale epidemiological, longitudinal studies examining clinical, social, and behavioral risk factors for morbidity and death from noncommunicable chronic diseases such as type 2 diabetes and cardiovascular diseases, the very conditions that increase severe illness and death from COVID-19. My research has been funded by the National Institutes of Health, the Agency of Healthcare Quality and Research, the Veterans' Affairs Health Services Research and Development, and PCORI. The total amount of the grants on which I have served as principal investigator or co-principal investigator is over $35 million (USD). I have authored over 225 peer-reviewed studies published in high impact medical and public health journals including Lancet, BMJ, The New England Journal of Medicine, JAMA, and the American Journal of Public Health. Since 2018, I have been an elected member of the Association of American Physicians, an honorary medical society for outstanding researchers in biomedical science and/or translational biomedical research.

14. I am not being compensated for my work on this case.

Ranit Mishori, M.D, MHS, FAAFP, Professor of Family Medicine, Georgetown University School of Medicine, Director of Global Health Initiatives Georgetown University Department of Family Medicine and Senior Medical Advisor, Physicians for Human Rights.

15. I am a senior medical advisor at Physicians for Human Rights (PHR), and Professor of family medicine at the Georgetown University School of Medicine, where I am the director of the department's Global Health Initiatives, Health Policy fellowship and our practice-based research network. A fellow of the American Academy of Family Physicians and Diplomate of the American Board of Family Medicine, I did my residency training at the Georgetown University/Providence Hospital Family Medicine Residency program. I received my medical degree from Georgetown University School of Medicine and a master's degree in International Health from the Johns Hopkins Bloomberg School of Public Health, in the Disease Control and Prevention Track (focusing on the science of how to halt the spread of infectious disease).

16. I am the faculty leader for Georgetown University School of Medicine's Correctional Health Interest group, where I supervise medical students placed at various area jails, prisons and detention centers. In addition, I am the director of Georgetown University's Asylum program

which focuses on the care and medico-legal issues of asylum seekers, including in immigration detention. I have written extensively and given talks and lectures about such issues nationally and internationally. In my role as senior medical advisor at PHR (and prior to that, as a consultant for PHR), I have reviewed and analyzed dozens of cases related to health outcomes of individuals in correctional facilities, and advised the organization and other partners (civil society, legal aid organizations and the media) about issues related to incarceration, including hunger strikes, medical care quality, communicable disease management, violence, and care of pregnant women in such settings.[1]

17. As an attending physician at the Georgetown University/Washington Hospital Center Family Medicine Residency Program, I work with urban underserved populations, including the homeless, formerly incarcerated individuals, immigrants and refugees. I routinely come in contact with victims of abuse, trauma and poverty where I regularly assess their medical as well as psycho-social needs in the context of their social determinants of health (such as unstable housing and incarceration).

18. For four years I was an elected member of the American Academy of Family Physicians' Commission on the Health of the Public and Science, where I chaired the Public Health Issues sub-committee. During that time, I was a lead author of the Academy's comprehensive position paper on Incarceration and Health.

19. To ensure accurate public information about COVID-19, I have also served as a special advisor on COVID-19 coverage for PBS NewsHour and appeared as an expert on their news programming. I have also served as a special advisor for their institutional preparedness, news coverage and staff safety related to COVID-19.

20. Since the onset of the COVID-19 pandemic, I have also applied my public health expertise in advising, planning, and executing COVID-19 responses, including at Georgetown University and the Department of Family Medicine at Georgetown Medical Center.

21. I am not being compensated for my work on this case.

THE COVID-19 PANDEMIC

22. COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus

[1] *See, e.g.*, Ranit Mishori, *Risk Behind Bars: Coronavirus and Immigration Detention*, The Hill (Mar. 17, 2020), https://thehill.com/opinion/immigration/487986-risk-behind-bars-coronavirus-and-immigration-detention; Amanda Holpuch, *Coronavirus Inevitable in Prison-Like US Immigration Centers, Doctors Say*, The Guardian (Mar. 11, 2020), https://www.theguardian.com/world/2020/mar/11/coronavirus-outbreak-us-immigration-centers; Abigail Hauslohner, et al., *Coronavirus Could Pose Serious Concern in ICE Jails, Immigration Courts*, The Washington Post (Mar. 12, 2020), https://www.washingtonpost.com/immigration/coronavirus-immigration jails/2020/03/12/44b5e56a- 646a-11ea-845d-e35b0234b136_story.html; Silvia Foster-Frau, *Coronavirus Cases in Migrant Detention Facilities Called 'Inevitable'*, Express News (Mar. 15, 2020) https://www.expressnews.com/news/us-world/border-mexico/article/Whether-in-detention-or-in-Mexico-U-S-15129447.php.

2 (SARS-CoV-2).

23. The disease caused by the novel coronavirus is called COVID-19. On January 23, 2020, the World Health Organization (WHO) issued a statement warning that every country in the world "should be prepared for containment, including active surveillance, early detection, isolation and case management, contact tracing and prevention of onward spread of 2019-nCoV infection," and advising the world to "place particular emphasis on reducing human infection, prevention of secondary transmission and international spread and contributing to the international response…."[2]

24. SARS-CoV-2 is readily spread through respiratory transmission and can be spread by both symptomatic and asymptomatic individuals. All people are susceptible to and capable of being infected with SARS-CoV-2 because of the ease with which the virus spreads and the lack of immunity in the population. The virus is spread through large and small droplets; that is, when an infected individual—whether symptomatic or asymptomatic—speaks, coughs, sneezes, talks, sings, and the like, they expel droplets which can transmit the virus to others in their proximity. Growing evidence suggests that the virus can be aerosolized, such that tiny droplets containing the virus can remain in the air and be inhaled by others who come into contact with that air. The virus is also known to be spread through the touching of contaminated surfaces, for example, when an infected person touches a surface with a hand they have coughed into and then another person touches that same surface before it has been disinfected and then touches their face. The virus can survive on contaminated surfaces for up to three days.[3]

25. In the absence of effective social distancing measures, each infected individual is estimated to infect two to three others, in a community context. This "replication number" or R0 is considered to be high, and is twice that of seasonal influenza. Modeling estimates show that the replication number in enclosed settings, such as cruise ships and nursing homes can be as high as 5 to 10. Infected persons can transmit the virus before they start to show symptoms, and perhaps even for weeks after their symptoms resolve. A substantial fraction of infected individuals, perhaps up to 35%, never show symptoms at all but may still transmit the virus to others.[4] Others may be capable of transmitting the virus before they develop symptoms. This means that testing or isolating only persons known to have symptoms will not stop the spread of infection. In addition, some people are so-called "super spreaders," who are thought to be

[2] World Health Organization, *Statement on the meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)* (Jan. 23, 2020), https://www.who.int/news-room/detail/23-01-2020-statement-on-the-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov).

[3] Neeltje van Doremalen et al., *Aerosol and Surface Stability of SARS-CoV-2 as Compared With SARS-CoV-1*, 382 NEW ENG. J. MED. 1962 (2020), https://pubmed.ncbi.nlm.nih.gov/32182409/.

[4] *COVID-19 Pandemic Planning Scenarios*, CTR. FOR DISEASE CONTROL AND PREVENTION (May 20, 2020), https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html.

more infectious than others and contribute to a higher rate of transmission due to a variety of causes, including behaviors and biological factors.

26. COVID-19 is a serious multi-system disease, which can lead to, among other things, respiratory, heart and kidney failure, and death. Older patients and patients with chronic underlying conditions are at a particularly high risk of severe cases and complications.[5] The need for care, including intensive care, and the likelihood of death, is much higher from COVID-19 than from influenza. According to recent estimates, the case fatality rate of people confirmed cases with COVID-19 is about ten times higher than a severe seasonal influenza, even in advanced countries with highly effective health care systems. Serious illness, sometimes resulting in death, occurs in approximately 3.4% of cases.[6] The rate of life-threatening complications is higher among elderly and other at-risk individuals.

27. For individuals who become more seriously ill, a common complication is a condition called interstitial pneumonia, which can affect both lungs and causes partial or total collapse of the lung alveoli (the small air sacks in the lungs), making it difficult or impossible for patients to breathe. Thousands of patients have required hospital-grade respirators, and COVID-19 can progress from a fever to life-threatening pneumonia.

28. In about 14 percent of cases of COVID-19, illness can be very severe.[7] Critical disease with respiratory failure, shock, or multiorgan dysfunction was reported in 5 percent of cases. Among hospitalized patients, the proportion of critical or fatal disease is higher. In a study that included 2,634 patients who had been hospitalized for COVID-19 in the New York City area—the epicenter of the COVID pandemic in the United States in March and April, 2020—14 percent were treated in the intensive care unit and 12 percent received mechanical ventilation. Mortality among those receiving mechanical ventilation was estimated in one study to be 88 percent.

29. Certain populations of people are at particular risk of developing more serious complications from COVID-19. People over the age of sixty-five are at higher risk, with those over seventy at serious risk. However, CDC has recently removed the specific age threshold from the older adult classification. CDC now warns that among adults, risk increases steadily as you age, and it's not just those over the age of 65 who are at increased risk for severe illness. As the U.S. Center for Disease Control and Prevention (CDC) and WHO have advised, certain medical

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[5] Fei Zhou et al., *Clinical Course and Risk Factors for Mortality of Adult Inpatients with COVID-19 in Wuhan, China*, 395 LANCET 1054 (2020), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30566-3/fulltext.
[6] *Supra* note 4.
[7] Zunyou Wu & Jennifer McGoogan, *Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72,314 Cases From the Chinese Center for Disease Control and Prevention*, JAMA (2020); *see also* Safiya Richardson et al., *Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area*, JAMA (2020); Laura Myers et at., *Characteristics of Hospitalized Adults With COVID-19 in an Integrated Health Care System in California*, JAMA (2020).

conditions increase the risk of serious COVID-19 for people of any age. These medical conditions include: those with lung disease, heart disease, diabetes, blood disorders, high blood pressure, obesity, chronic liver or kidney disease, inherited metabolic disorders, developmental delays, those who are immunocompromised (such as from cancer, HIV, autoimmune diseases), those who have survived strokes, and those who are pregnant.[8]

30. There is no vaccine against COVID-19 and no vaccine is expected to be available until mid-2021 at the earliest. The anti-viral treatment for COVID-19, remdesivir, in early studies has been found to have only small to modest effects on time to recovery and no effect on survival. Thus, almost all patients who develop severe disease, particularly those who require mechanical ventilation, face a high probability of death. A recently published study on the corticosteroid dexamethasone suggests that the drug can reduce 28-day mortality among those receiving invasive mechanical ventilation or oxygen at randomization, but not among patients not receiving respiratory support. Except for dexamethasone, the only known effective measures to prevent severe disease or deaths resulting from COVID-19 are to prevent individuals from being infected with the virus. Moreover, young and healthy individuals may be more susceptible than originally thought. Data from the CDC show that up to one-fifth of infected people ages 20-44 have been hospitalized, including 2-4 percent in that age group who were treated in an intensive care unit.[9]

31. Contrary to what many people believe, immunity to pathogens like SARS-CoV-2 is not present or absent. Instead, there are levels of immunity, often based on the levels of antibodies in the body. At the moment, there are still open questions about whether individuals who recover from COVID-19 will have developed full immunity even in the immediate aftermath. Looking to other beta-coronaviruses allows us to infer that there is a significant risk that immunity will diminish substantially over time; whether that is measured in months or years is uncertain. The coronaviruses that cause the common cold, for example, spur only short-term immunity that wanes after several months. Antibodies to the related coronavirus (SARS-CoV) that caused the SARS epidemic in 2002-2004 appeared to wane after several years. The latest data suggest that antibody responses to SARS-CoV-2 are transient and do not necessarily appear in all patients infected by the virus.

32. The number of people infected is still growing across the globe. As of July 19, 2020, there are more than 14 million reported cases, and at least 599,000 cases of death attributed to this

[8] *See* Centers for Disease Control and Prevention, *Coronavirus Disease 2019 (COVID-19): People Who May Be at Higher Risk*, https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/high-risk-complications.html (last accessed May 27, 2020).
[9] Sharon Begley, *New Analysis Breaks Down Age-Group Risk for Coronavirus — and Shows Millennials Are Not Invincible*, (March 18, 2020), https://www.statnews.com/2020/03/18/coronavirus-new-age-analysis-of-risk-confirms-young-adults-not-invincible/; Centers for Disease Control and Prevention, *Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) — United States, February 12–March 16, 2020* (Mar. 26, 2020), https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm?s_cid=mm6912e2_w/.

disease.[10] These numbers are most likely undercounts of the true number of cases due to access issues and pervasive testing challenges noted throughout the world.

33. In Mexico, the first case was reported on February 28, 2020.[11] According to the National Agency of Science and Technology, as of July 9, Mexico has had over 268,000 confirmed cases, and over 32,000 have died. These numbers place Mexico among the 10 countries with the highest number of cases and fatalities.[12] On July 8, the country reported its highest figure of daily new cases (6,995), and a daily figure of 782 deaths, making it the sixth country in the world with the most confirmed cases. The highest daily mortality rate was on June 3, when the country reported 1,091 deaths.[13] Nationwide, cases continue to grow at a 2.7% rate.[14] Because Mexico does not have regular, reliable, comprehensive testing, the number of people infected with SARS-CoV-2 is likely to be far larger than the number of documented diagnosed cases. In May, the New York Times found that the Mexican government was not reporting hundreds, possibly thousands, of deaths from the coronavirus in Mexico City, according to officials and confidential data[15]. According to John Hopkins Univerisity's global dashboard of coronavirus testing, as of 26 August Mexico is conducting on average 4 tests for every 100,000 persons on a daily basis.[16] In July, The Guardian reported that "testing has been rare in Mexico, even for people presenting Covid-19 symptoms at hospital and for the physicians, nurses and paramedics treating them"[17], referring to the coronavirus tsar, Hugo López-Gatell, who "has steadfastly opposed widespread testing, calling it "a waste of time, effort and resources".[18] On 21 August, Michael Ryan, a senior WHO official, claimed that the scale of the pandemic in Mexico was "under-recognized and under-represented", adding that most people are being under-diagnosed or diagnosed late, which has a higher toll on poor and indigenous communities.[19]

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[10] WHO Coronavirus Disease (COVID-19 Dashboard), World Health Org., https://covid19.who.int/ (last visited July 7, 2020).
[11] Wall Street Journal, *Mexico Confirms First Case of Coronavirus*, https://www.wsj.com/articles/mexico-confirms-first-case-of-coronavirus-11582898181 28 February 2020 [last accessed July 8 2020]
[12] Gobierno de México, *COVID-19 en México, Información General*, https://coronavirus.gob.mx/datos/ [last accessed July 8 2020]
[13] The New York Times, *Mexico Coronavirus Map and Case Count*, https://www.nytimes.com/interactive/2020/world/americas/mexico-coronavirus-cases.html#cases [last accessed July 9 2020]
[14] Telemundo, *En cifras: México marca con 6,995 casos un nuevo récord diario de contagios*, https://www.telemundo20.com/noticias/mexico/coronavirus-en-mexico-casos-confirmados-sospechosos-estrategia-prevencion/1995026/ 8 July 2020 [last accessed July 9 2020]
[15] The New York Times, https://www.nytimes.com/2020/05/08/world/americas/mexico-coronavirus-count.html
[16] John Hopkins University & Medicine, *Coronavirus Resource Center*, https://coronavirus.jhu.edu/testing/international-comparison [last accessed August 26 2020]
[17] The Guardian, *Mexico Flying Blind as Lack of COVID-19 Testing Mystifies Experts*, 24 July 2020, https://www.theguardian.com/global-development/2020/jul/24/mexico-covid-19-testing-coronavirus [last accessed August 26 2020]
[18] MSN, *No más pruebas, 'es desperdicio de tiempo y recursos': López-Gatell*, 18 May 2020 https://www.msn.com/es-mx/noticias/mexico/no-m%C3%A1s-pruebas-es-desperdicio-de-tiempo-y-recursos-l%C3%B3pez-gatell/ar-BB14Hhzx [last accessed August 26 2020]
[19] UN News, *En México hacen falta más pruebas de COVID-19 y los pobres tienen doble riesgo de morir*, 21 August 2020, https://news.un.org/es/story/2020/08/1479332

34. In the State of Morelos, as of July 9, the Secretary of State for Health in Morelos reported a total of 3,337 SARS-CoV-2 cases statewide, adding up to 732 deaths.[20] The state remained under the red light alert indicating a high risk.[21] The population of the state was estimated at 1,965,487 in 2017.[22] The Secretary of State for Health, Marcos Cantu Cuevas, stated on a press conference on July that 6,657 tests had been performed in the state, and the new plan[23] for reopening and reactivating the economy includes increased testing.[24]

35. For all people, even in countries with advanced economies with very effective health care systems, the case fatality rate of COVID-19 is about ten-fold higher than that observed from a severe seasonal influenza. In the more vulnerable groups, the rates of severe disease requiring specialized or hospital-based care, including intensive care and death, are much higher than observed in influenza infection. In the highest risk populations, the case fatality rate is about 15 percent. For many who do not die from COVID-19, a prolonged recovery is expected to be required, including the need for extensive rehabilitation for profound deconditioning, loss of digits, neurologic damage, and loss of respiratory capacity that can be expected from such a severe illness. Even among individuals who do not require hospitalization, prolonged disease with debilitating symptoms has been reported widely.

36. Based on data collected by the CDC, WHO and U.S. National Center for Biotechnology Information on the speed at which SARS-CoV-2 has spread since it is first known to have infected a human in November 2019, the virus is estimated to be twice as contagious as influenza.[25] Unlike influenza, there are no known vaccines or antiviral medications to prevent or treat infection from SARS-CoV-2.

37. The current estimated incubation period of COVID-19 is between 2 and 14 days, meaning that a patient who begins showing symptoms today may have been contagious for as long as two weeks prior. The median time from exposure to symptom onset is 4-5 days.

38. The time course of the disease once symptoms appear can be very rapid. A patient's condition can seriously deteriorate in as little as five days (perhaps sooner) following initial detection of symptoms. The current estimated rate for life-threatening complications is approximately 20

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[20] Secretaria de Salud de Morelos, *Situacion Actual del Coronavirus COVID-19 en Morelos*, http://salud.morelos.gob.mx/pdf/situacion-actual-2020 8 July 2020 [last accessed July 9 2020]

[21] Secretaria de Salud de Morelos, *Situacion Actual del Coronavirus COVID-19 en Morelos*, http://salud.morelos.gob.mx/pdf/situacion-actual-2020 8 July 2020 [last accessed July 9 2020]

[22] Servicio de Salud de Morelos, Direccion de Planeacion y Evaluacion, Subdireccion de Planeacion y Desarrollo, *Diagnostico en Salud Edicion 2019, 1.1.1 Contexto Geografico Estatal y Municipal*, [last accessed July 7 2020]

[23] Gobiernos de Morelos, *Comunicado de Prensa: Ejes rectores del Plan Integral para la Reapertura y Reactivación Económica de Morelos*, https://morelos.gob.mx/?q=prensa/nota/comunicado-de-prensa-ejes-rectores-del-plan-integral-para-la-reapertura-y-reactivacio 8 July 2020 [last accessed July 9 2020]

[24] La Union de Morelos, *Incrementarán número de pruebas de COVID-19*, https://www.launion.com.mx/morelos/politica/noticias/163468-incrementaran-numero-de-pruebas-de-covid-19.html 8 July 2020 [last accessed July 9 2020]

[25] Brian Resnick & Christina Animashaun, *Why Covid-19 Is Worse than the Flu, in One Chart*, Vox (Mar. 18, 2020), https://www.vox.com/science-and-health/2020/3/18/21184992/coronavirus-covid-19-flu- comparison-chart.

percent, with a disease fatality rate estimated at between 1 percent and 5 percent.

39. It is clear that, currently, the numbers of people diagnosed reflect only a portion of those likely infected; very few people have been tested, and many carriers are asymptomatic, so they do not even know they should be tested. As a result, thousands of people are likely living day to day and carrying a potentially fatal disease that is easily transmitted—and no one is aware of it.

40. Because there is no vaccine and no effective anti-viral treatments, coronavirus prevention strategies include containment and mitigation. Containment requires identifying and isolating people who are ill or who have had contact with people who are ill. It also requires widespread use of personal protective equipment such as masks.

41. There is a wide consensus among public health and medical experts that avoiding congregative environments and practicing scrupulous social distancing is essential to preventing transmission of SARS-CoV-2. This consensus is the basis for governments' actions throughout the world, including unprecedented, sweeping bans on gatherings of any size, shelter-in-place orders, and the closure of all but essential buildings. Schools, courts, collegiate and professional sports, theater and other congregate settings have been closed as part of this risk mitigation strategy globally.

42. As recognized by CDC guidelines, the stay at home orders and mask wearing mandates, the only ways to meaningfully limit the spread of SARS-CoV-2 are self-quarantine, social distancing, mask wearing, frequent handwashing, and disinfecting surfaces. Self-quarantine involves not physically interacting with those outside one's household. Social or physical distancing is maintaining at least six feet of distance between individuals. Both of these interventions are aimed at keeping infected individuals (with or without symptoms) far enough apart from one another so that they do not transmit the virus to others. Frequent handwashing and regular disinfection of surfaces can help curb the spread via contaminated surfaces. None of these steps alone or in combination, however, is guaranteed to halt transmission.

43. Transmission of SARS-CoV-2 is more likely to occur in any location where there is close proximity (less than six feet) between individuals, particularly in small, poorly ventilated indoor spaces. Because transmission of the virus can occur via contact with contaminated surfaces, there is also risk of spread of the virus at any location where multiple individuals touch surfaces.

44. An important infection mitigation strategy is to avoid conditions that lead to "cluster transmission," where a single infected individual transmits the coronavirus to a large number of bystanders. Cluster transmissions occur when large groups of people are put into close spaces and are not able to practice appropriate social distancing protocols, or when many

persons have close interactions with a single infected individual. A single cluster event can lead to multiple new infections.

45. In the United States, clusters have been particularly pernicious in meat-packing plants, where workers are required to work on processing lines in close physical proximity to other workers. Otherwise-healthy workers at meat-packing facilities have become infected with the coronavirus at rates comparable to those in outbreaks in nursing homes and prisons.[26] Other examples of cluster transmissions include choir practices,[27] funerals and birthday parties,[28] or church services.[29]

THE SPECIFIC COURSE OF THE PANDEMIC IN PRISONS

Individuals in prisons are at risk of serious harm during the COVID-19 pandemic

46. Prisons are designed to maximize control of the incarcerated population, not to minimize disease transmission or to efficiently deliver health care. These facilities are enclosed congregate environments, much like the cruise ships that were the site of the largest concentrated outbreaks of COVID-19.[30]

47. Prisons have even greater risk of infectious spread than other enclosed environments because of conditions of crowding, the proportion of vulnerable people detained, and often scant medical care resources. People incarcerated in prisons live in close quarters and cannot achieve the "physical (social) distancing" needed to effectively prevent the spread of the novel coronavirus. Toilets, sinks, and showers are shared, without regular, repeated disinfection between uses. Food preparation and food service is communal, with little opportunity for frequent surface disinfection. Spaces are poorly ventilated, which promotes highly efficient

[26] Michael Corkery, David Yaffe-Bellany & Derek Kravitz, *As Meatpacking Plants Reopen, Data About Worker Illness Remains Elusive*, N.Y. TIMES (May 25, 2020), https://www.nytimes.com/2020/05/25/business/coronavirus-meatpacking-plants-cases.html.
[27] Lea Hamner et al., *High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice — Skagit County, Washington, March 2020*, 69 MORBIDITY & MORTALITY WKLY. REP. 606 (2020), https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6919e6-H.pdf.
[28] Shelby Bremer, *CDC Report Shows How a Funeral and Birthday Party 'Super Spread' COVID-19 in Chicago*, NBC CHI. (Apr. 9, 2020), https://www.nbcchicago.com/news/local/cdc-report-shows-how-a-funeral-and-birthday-party-super-spread-covid-19-in-chicago/2253006/.
[29] Allison James et al., *High COVID-19 Attack Rate Among Attendees at Events at a Church — Arkansas, March 2020*, 69 MORBIDITY & MORTALITY WKLY. REP. 632 (2020), https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6920e2-H.pdf.
[30] *See e.g.*, Jamie Ducharme, *Up to 80% of COVID-19 Infections Are Asymptomatic, a New Case Report Says*, Time (May 27, 2020), https://time.com/5842669/coronavirus-asymptomatic-transmission/.

spread of diseases through droplets.

48. Many prisons lack the supplies and staff needed to perform cleaning procedures such as regular disinfection of high-touch surfaces, which is essential to preventing viral spread. Facilities often do not provide adequate opportunities to exercise necessary hygiene measures, such as frequent handwashing or use of alcohol-based sanitizers when handwashing is unavailable. Jails and prisons are often under-resourced and ill-equipped with sufficient hand soap and alcohol-based sanitizers for people detained in and working in these settings.

49. The medical facilities at prisons are almost never sufficiently equipped to handle widespread outbreaks of infectious diseases. To prevent transmission of droplet-borne infectious diseases, people who are infected need to be isolated in specialized airborne negative pressure rooms. Most jails and prisons have few negative pressure rooms if any, and these may be already in use by people with other conditions (including tuberculosis or influenza). Resources could become exhausted rapidly and any beds available could be at capacity. As an outbreak spreads, medical personnel may become sick and not show up to work. Facilities can become dangerously understaffed with healthcare providers.

50. Due to the limitations of in-house medical services, prisons often need to rely on outside facilities (hospitals, emergency departments) to provide intensive medical care given that the level of care they can provide in the facility itself is typically relatively limited. During an epidemic, relying on outside facilities may not be possible, as those outside facilities will likely be at or over capacity themselves.

51. As health systems have additional burden caring for individuals with COVID-19, people with chronic underlying physical and mental health conditions may not be able to receive the care they need. Failure to provide individuals adequate medical care for their underlying chronic health conditions could result in increased risk of SARS-CoV-2 infection and increased risk of infection-related morbidity and mortality if they do become infected. Moreover, mental health conditions may be exacerbated by the stress of incarceration during the COVID-19 pandemic, including isolation and lack of visitation.

52. As an outbreak spreads through jails, prisons, and communities, correctional officers and other security personnel may become sick and not show up to work. Absenteeism poses substantial safety and security risk to both the people inside the facilities and the public. Worse yet, if vendors and staff are asymptomatic or pre-symptomatic and showing up for work, the risk of spreading the virus is increased substantially.

53. Due to the crowded conditions and scarcity of sanitary and medical resources, transmission of infectious diseases in prisons is incredibly common. These risks are magnified for those diseases, like COVID-19, that are transmitted by respiratory droplets. The experiences of other nations fighting SARS-CoV-2 outbreaks demonstrate the particular risk that its transmission presents in prison settings. For instance, at the early stages of the pandemic, prisons in China

reported more than 500 cases of COVID-19 spread across four facilities, affecting both correctional officers and incarcerated people.[31] Likewise, in the United States, the coronavirus has spread rapidly in various prison environments. For instance, the jail on Rikers Island in New York City went from a single confirmed case to 287 cases in just over two weeks.[32] Similarly, in Cook County, Illinois, the number of positive cases in the county jail rose from 2 to 291 in just two weeks.[33] At one point, an outbreak at Marion Correctional Institution (CI) in Ohio was the largest-known source of coronavirus infections in the United States.[34] Over 80% of the individuals incarcerated at Marion CI tested positive—in other words, over 2,000 of the 2,500 detainees.[35] That county was experiencing above average rates of community spread outside the prison.[36] This experience demonstrates that once SARS-CoV-2 begins spreading within a prison, it is only a matter of time until the outbreak spreads rapidly with many of those inside eventually infected and with the disease soon spreading to the community.

54. COVID-19 threatens the well-being of incarcerated individuals, the corrections staff who shuttle between prisons and outside communities, and members of those outside communities. Staff, visitors, contractors, and vendors who pass between communities and facilities can bring infectious diseases into and out of facilities. Moreover, rapid turnover of prison populations means that people often cycle between facilities and communities. People often need to be transported to and from facilities to attend court hearings and move between facilities. Strains on the medical systems of prison facilities have implications for outside hospitals and emergency departments on which those facilities already depend for intensive medical care services. Prison health is public health.

55. Because of the heightened risk of congregate settings, the course of the pandemic in prisons will likely differ in key ways from the course of the pandemic in the community at large. Like nursing homes and meat-packing plants, prisons are institutional amplifiers creating "super-spreading events" (SSE) for SARS-CoV-2. This makes them particularly dangerous for accelerating the spread of the disease both within the facility and to the wider community. In fact, new community-wide outbreaks have been documented in several communities worldwide where these institutional amplifiers are located.

56. There are two primary ways in which the course of the pandemic in prisons will be specific to their role as institutional amplifiers of SSEs: (1) absent significant and sustained reductions of

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[31] Evelyn Cheng & Huileng Tan, *China Says More than 500 Cases of the New Coronavirus Stemmed from Prisons, CNBC* (Feb. 20, 2020), https://www.cnbc.com/2020/02/21/coronavirus-china-says-two-prisons- reported-nearly-250-cases.html.
[32] COVID-19 Infection Tracking in NYC Jails, The Legal Aid Society, *available at* https://legalaidnyc.org/covid-19-infection-tracking-in-nyc-jails/.
[33] Tyler Kendall, *"We're at war with no weapons": Coronavirus cases surge inside Chicago's Cook County jail*, CBS NEWS (Apr. 5, 2020), available at https://www.cbsnews.com/news/chicago-cook-county-jail-coronavirus-life-inside-covid-19-cases/.
[34] Rick Rojas & Michael Cooper, *Georgia, Tennessee and South Carolina Say Businesses Can Reopen Soon*, N.Y. TIMES (Apr. 20, 2020), *available at* https://www.nytimes.com/2020/04/20/us/coronavirus-us-hot-spots-reopening.html.
[35] Sarah Volpenhein, *Marion prison coronavirus outbreak seeping into larger community*, MARION STAR (Apr. 25, 2020), https://www.marionstar.com/story/news/local/2020/04/25/marion-prison-ohio-coronavirus-outbreak-seeping-into-larger-community/3026133001/.
[36] *Id*.

the population of prisons, these institutions are likely to increase the risk of further outbreaks of SARS-CoV-2 in communities at large; and (2) further outbreaks will be more dangerous to individuals in prisons than if they were not detained, which in turn increases the risk to the broader community.

Prisons can serve as reservoirs of COVID-19 and can increase the risk of future outbreaks

57. Because it is impossible for prisons to be disconnected from the communities around them, the persistence of SARS-CoV-2 in these facilities will pose a continuous risk to the public. The risk of SARS-CoV-2 persisting in these facilities will only decrease to the extent the population in these facilities is reduced and remains reduced, something that is particularly true when it comes to individuals at high risk for SARS-CoV-2. Many corrections departments have tried to combat COVID-19 through other kinds of measures (e.g. infection control, limited physical ("social") distancing). However, the continuing and growing outbreaks in these facilities show the difficulty in containing SARS-CoV-2 in these environments. It can only take one weak link to undermine society-wide efforts to combat the virus. Prisons threaten to play a similar role. Therefore, from the standpoint of public health in the society as a whole it is crucial that steps be taken to reduce the risk posed by these facilities as much as possible.[37] Due to under-testing and the lag time in obtaining and reporting test results, the discovery of new cases in prisons may be delayed as well.

Prisons can serve as an accelerant to the spread of SARS-CoV-2 and people in these facilities will be significantly more at risk for severe COVID-19

58. Prisons are tinderboxes for the spread of infectious disease. Once SARS-CoV-2 is in such facilities, it can spread rapidly both within and beyond the facilities. This will also likely demand significant resources from nearby hospitals. Because of the inevitable circulation between prisons and the outside community, both in terms of new arrests as well as staff and vendors coming and going, there is a high risk that once SARS-CoV-2 is introduced into these facilities—an outbreak within a facility will then serve as a springboard for further spread to the outside community. Furthermore, transferring individuals between facilities will also increase the risk of transmission between facilities, meaning that SARS-CoV-2 could be introduced to a prison in a community that has lower rates of community spread.[38] This is particularly of concern given reports of individuals spreading the virus while asymptomatic.

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[37] Hillary Leung, *Singapore Was a Coronavirus Success Story—Until an Outbreak Showed How Vulnerable Workers Can Fall Through the Cracks*, Time (Apr. 29, 2020), https://time.com/5825261/singapore-coronavirus-migrant-workers-inequality/ ("'If we forget marginalized communities, if we forget the poor, the homeless, the incarcerated…we are going to continue to see outbreaks,' says Gavin Yamey, Associate Director for Policy at the Duke Global Health Institute. 'This will continue to fuel our epidemic.'").

[38] *See, e.g.*, Dianne Solis, *Virus began spreading in Texas detention center as positive immigrants were quickly transferred in from Northeast*, Dallas Morning News (Apr. 27, 2020), https://www.dallasnews.com/news/public-health/2020/04/27/virus-began-spreading-in-texas-detention-center-as-positive-immigrants-were-quickly-transferred-in-from-northeast/ (describing how transfer of around 20 individuals from detention in one facility likely triggered rapid spread of COVID-19 in another facility).

59. Even if a prison were able to successfully eliminate an outbreak of SARS-CoV-2 in a facility, increasing the population of that facility—particularly by returning individuals at high risk of infection and severe disease—poses substantial risks both to those individuals and society at large. Once again, by the time a facility realizes there are new cases, it may well be too late to prevent a full-blown outbreak.

It will take longer to combat the COVID-19 pandemic in prisons

60. Because true physical ("social") distancing is much more difficult in congregate settings like prisons, even if the outside world is increasingly successful at reducing the spread of SARS-CoV-2, prisons are likely to lag behind. For example, the rate of infection among prisoners and staff in the New York City jail system as of July 3, 2020 was approximately 11%, while in New York City as a whole the rate was 2.26%.[39] Dr. Anthony S. Fauci, the chief medical advisor to the U.S. President's COVID-19 task force, recently stated that "he expects cases to spike in closed environments like nursing homes, prisons and factories."[40] As such, even if the situation improves significantly in surrounding communities, this does not mean that the level of risk will have fallen to similar levels within prisons—to the contrary, the risk will remain considerably higher in these congregate facilities as the conditions there offer the perfect environment for the spread of the virus.

PRISON CONDITIONS IN THE STATE OF MORELOS, MEXICO

61. Mexican prisons have been described by human rights groups as "a potential epicenter for rapid COVID-19 spread, both inside and outside of detention centers".[41] Several prisons in the country have already reported COVID-19 cases and deaths. As of July 14, the National Human Rights Commission reported 1.739 confirmed cases, 394 suspected cases and 164 deaths (one in Morelos) in prisons.[42] However, human rights and civil society organizations claim that official figures do not correspond to the actual reach of the virus in prisons.[43] According to the Asistencia Legal por los Derechos Humanos, A.C. ("Asilegal"), as of July 14, 2020 there had been 2,305 confirmed cases and 197 deaths in prisons nationwide. Of confirmed cases, 1,997 were prisoners and 308 were staff. Of the deaths, 167 were prisoners and 30 were staff members.[44] As of June 18, the contagion rate at the national level in prisons is estimated at 8.5 new cases every day. [45] Because the many infected people can be asymptomatic or pre-

[39] https://legalaidnyc.org/covid-19-infection-tracking-in-nyc-jails/
[40] https://www.nytimes.com/2020/05/11/health/coronavirus-second-wave-infections.html
[41] Human Rights Watch, *Covid-19: The Risk in Mexican Prisons*, https://www.hrw.org/news/2020/06/04/covid-19-risk-mexican-prisons 4 June 2020 [last accessed July 7 2020]
[42] Comisión Nacional de Derechos Humanos, https://twitter.com/CNDH/status/1279929302214205440 5 July 2020
[43] Brookings, *Mexico's prisons, COVID-19, and the amnesty law*, 22 May 2020, https://www.brookings.edu/blog/order-from-chaos/2020/05/26/mexicos-prisons-covid-19-and-the-amnesty-law/
[44] Asilegal, *Mapa Penitenciario COVID-19*, https://asilegal.org.mx/mapa-penitenciario-covid-19/
[45] Asilegal, *Mapa Penitenciario COVID-19*, https://asilegal.org.mx/mapa-penitenciario-covid-19/

symptomatic, and because Mexico does not have regular, reliable, comprehensive testing, the number of people infected with SARS-CoV-2 is likely to be far larger than the number of documented diagnosed cases.

62. Between 5.1 and 10% of the population in Mexican prisons is especially vulnerable to the virus due to age or underlying medical conditions.[46] Nationwide, As of 6 July, a total of 3,685 (less than 2% of the total prison population) persons had been released, with most of the releases (2,583) in the State of Mexico (and none of them were from the State of Morelos). These releases were granted mostly to elderly persons and persons with comorbidities, with a few releases granted to pregnant women and women with children.[47]

63. There are 8 prisons in the State of Morelos of which six are local: (1) Centro Estatal de Reinserción Social Morelos en (CERESO) Atlacholoaya ("CERESO Atlacholoaya"); (2) Centro Femenil de Reinserción Social (CEFERESO) Atlacholoaya ("CEFERESO Atlacholoaya"); (3) Cárcel de Reinserción Social en Cuautla ("Cuautla Prison"); (4) Cárcel Distrital de Jojutla ("Jojutla Prison"); (5) Cárcel Distrital de Jonacatepec. ("Jonacatepec Prison"); (6) Centro de Ejecución de Medidas Privativas de Libertad para Adolescentes en Alpuyeca ("CEMPLA").

64. According to the Asilegal map, as of July 14, 2020 at least three prisoners and two members of the staff have died during the pandemic at CERESO Atlacholoaya[48]. The official numbers of people infected with COVID-19 in these six prisons are not currently available. However, on May 22, Gilberto Barba Ocampo, the director general of Social Reintegration of the State of Morelos confirmed that so far five prisoners had died from "respiratory diseases", most of them over 60, though it still was to be determined whether the deaths were related to COVID-19. He also added that 18 prisoners had been in isolation due to their respiratory problems[49].

65. Based on the available information, there are already systemic deficiencies in these local prisons. These include overpopulation, inadequate medical care, difficulties in accessing water and personal hygiene products. The prison population in Mexico exceeds 201,065 people.[50] The National Commission for Human Rights (CNDH) has recently underlined the systemic

[46] Sociedad de Criminología Latinoamericana, *Los Efectos del Coronavirus en las Cárceles de Latinoamérica*, https://criminologialatam.wordpress.com/2020/06/12/efectos-del-covid-19-carceles-de-latino-america 12 June 2020, p. 62 [last accessed July 9 2020]

[47] Sociedad de Criminología Latinoamericana, *Los Efectos del Coronavirus en las Cárceles de Larinoamérica*, 12 June 2020, p. 63 [last accessed July 9 2020]
Mostly through various provisions of National law on enforcement of sentences (The Ley Nacional de Ejecución Penal)

[48] Asilegal, *Mapa Penitenciario COVID-19*, https://asilegal.org.mx/mapa-penitenciario-covid-19/

[49] El Universal, *Reportan dos muertes por Covid en penales de Morelos*, 22 May 2020 https://www.eluniversal.com.mx/estados/reportan-dos-muertes-por-covid-en-penales-de-morelos

[50] *Cuaderno mensual de información estadística penitenciaria nacional. Prevención y readaptación social. México. 2019* https://forojuridico.mx/situacion-del-sistema-penitenciario-mexicano-2/#_ftn3 [last accessed 8 July 2020]

deficiencies of the penitentiary system, notably overcrowding[51]. Figures from the most recent penitentiary population census estimate that 45.6% of persons deprived of liberty share a cell with more than five persons.[52] These figures also show that only 40% of the persons in prison at the national level received personal hygiene supplies, out of which only 7.6% of these were incarcerated in state and local facilities.[53] Furthermore, 22.4% of the national prison population did not receive medical attention.[54] The 2019 National Diagnosis of Prison Supervision reports deficient hygiene, material and equipment conditions in 63% of state prisons, as well as deficiencies in health care services in 33% of state prisons.[55] The 2019 National Diagnosis also identified deficiencies in attention to women with minors in the CEFERESO Atlacholoaya.[56]

66. The Special COVID-19 report published by the National Human Rights Commission on July 1, 2020 states that the prison population in Morelos is 3,456 despite a capacity for only 2,047. Thus, the facilities are 68.8% over their full capacity.[57] In terms of overcrowding, according to the 2019 Diagnosis**,** Cuautla Prison was the most overpopulated facility, with a capacity of 218 and a population of 495 (127% over full capacity), CERESO Atlacholoaya had a capacity of 2,019 and a population of 2,337 (15% over capacity), and Jojutla Prison had a capacity of 132 and a population of 338 (156% over capacity).[58] According to the National Human Rights Commission, the prison population in Morelos belonging to vulnerable groups is distributed as follows: 77 indigenous persons, 28 have mental impairments, 197 are elderly and 503 are disabled or have other pathologies, and there are 18 foreigners.[59]

67. In 2019, the National Diagnosis of Prison Supervision[60] assessed penitentiary facilities in the State of Morelos under the following rubrics: I) Guarantees of personal integrity of prisoners; II) Guarantees of dignified imprisonment; III) Conditions of governance; IV) Social reintegration; and V) Prisoners with special needs. Rubric I includes healthcare, and rubric II includes state of facilities, hygiene and food. The 2019 National Diagnosis for Morelos

[51] Comisión Nacional de Derechos Humanos en Mexico, *Informe Especial COVID-19 en Centros Penitenciarios*, https://www.cndh.org.mx/documento/informe-especial-covid-19-en-centros-penitenciarios p. 2
[52] Comisión Nacional de Derechos Humanos en Mexico, *Informe Especial COVID-19 en Centros Penitenciarios*, https://www.cndh.org.mx/documento/informe-especial-covid-19-en-centros-penitenciarios p. 2
[53] Comisión Nacional de Derechos Humanos en Mexico, *Informe Especial COVID-19 en Centros Penitenciarios*, https://www.cndh.org.mx/documento/informe-especial-covid-19-en-centros-penitenciarios p. 2
[54] Comisión Nacional de Derechos Humanos en Mexico, *Informe Especial COVID-19 en Centros Penitenciarios*, https://www.cndh.org.mx/documento/informe-especial-covid-19-en-centros-penitenciarios p. 2
[55] Comisión Nacional de Derechos Humanos, Diagnóstico Nacional de Supervisión Penitenciaria 2019, https://www.cndh.org.mx/sites/all/doc/sistemas/DNSP/DNSP_2019.pdf, p. 8
[56] Comisión Nacional de Derechos Humanos, Diagnóstico Nacional de Supervisión Penitenciaria 2019, https://www.cndh.org.mx/sites/all/doc/sistemas/DNSP/DNSP_2019.pdf, p. 271
[57] Comisión Nacional de Derechos Humanos en Mexico, *Informe Especial COVID-19 en Centros Penitenciarios*, https://www.cndh.org.mx/documento/informe-especial-covid-19-en-centros-penitenciarios p. 41
[58] Comisión Nacional de Derechos Humanos, *Diagnóstico Nacional de Supervisión Penitenciaria 2019*, https://www.cndh.org.mx/sites/all/doc/sistemas/DNSP/DNSP_2019.pdf, p. 270.
[59] Comisión Nacional de Derechos Humanos en Mexico, *Informe Especial COVID-19 en Centros Penitenciarios*, https://www.cndh.org.mx/documento/informe-especial-covid-19-en-centros-penitenciarios p. 41
[60] Comisión Nacional de Derechos Humanos, *Diagnóstico Nacional de Supervisión Penitenciaria 2019*, https://www.cndh.org.mx/sites/all/doc/sistemas/DNSP/DNSP_2019.pdf

identifies deficiencies in overcrowding, healthcare, prevention of violent incidents, and material conditions and hygiene. It also concludes that there is a "lack or deficiency of material conditions and hygiene" in the medical areas, kitchens and canteens. Other highlights include shortcomings in attention to women with children and pregnant, and elderly prisoners.[61] The National Diagnosis uses a scoring system for the rubrics that grants green, yellow or red lights to prisons according to the criteria under each rubric. Only Jonacatepec Prison received a green light under rubric I, guarantees of personal integrity. The remaining four facilities (CERESO Atlacholoaya, CEFERESO Atlacholoaya, Cuautla Prison, Jojutla Prison) received red lights under rubric II, guarantees of dignified imprisonment. Cuautla Prison and Jojutla Prison received red lights under rubric I, which includes healthcare. The assessment in the Diagnosis resulted in a total score of 5.97 for Cuautla Prison, 5.98 for CERESO Atlacholoaya, 6.04 for Jojutla Prison and 7.32 for CEFERESO Atlacholoaya, out of a maximum score of 10. At the state level, the assessment of rubric II, guarantees of dignified imprisonment, received a red light, while the other four received a yellow light.

EVALUACIÓN DE CENTROS POR RUBRO

CENTROS	I	II	III	IV	V
1) CENTRO FEMENIL DE REINSERCIÓN SOCIAL EN ATLACHOLOAYA					
2) CENTRO DE REINSERCIÓN SOCIAL CUAUTLA					
3) CENTRO DISTRITAL JOJUTLA					
4) CENTRO ESTATAL DE REINSERCIÓN SOCIAL MORELOS EN ATLACHOLOAYA					
5) CENTRO DISTRITAL JONACATEPEC					

Source: Comisión Nacional de Derechos Humanos, *Diagnóstico Nacional de Supervisión Penitenciaria 2019*, p. 270

68. More recently, in January 2020, a report from the Human Rights Commission for the State of Morelos identified urgent problems of overpopulation, deficient medical care, lack of personnel, lack of employment activities and clear inequality among the incarcerated in the five local prisons and the juvenile facilities (CEMPLA). Other issues reported included suicides, homicides, deaths due to diseases, confirmed cases of HIV, and riots. These structural problems are widespread at the national level, with reports[62] of 21% of prisoners

[61] Comisión Nacional de Derechos Humanos, *Diagnóstico Nacional de Supervisión Penitenciaria 2019*, https://www.cndh.org.mx/sites/all/doc/sistemas/DNSP/DNSP_2019.pdf, p. 271.
[62] El Sol de Cuernavaca, *Morelos con Deficiencias en el Sistema Penitenciario: CDHEM*, https://www.elsoldecuernavaca.com.mx/policiaca/morelos-con-deficiencias-en-el-sistema-penitenciario-cdhem-4760736.html 28 January 2020 [last accessed July 7 2020]

sharing cells with six to ten people, and 13% sharing with more than fifteen people, conditions that prevent the implementation of social distancing. Access to water and personal hygiene are also an issue, with 12 out of every 100 prisoners lacking a space to wash themselves, and 30 out of 100 lacking access to clean water and medication.

69. The poor material conditions in prisons, together with overcrowding, have led to the outbreak of riots. In the State of Morelos, a riot in early July at the Atlacholoaya prison due to disputes over governance of the prison left four dead and multiple injured.[63] Nationwide, around 12 riots in 9 states have been reported.[64] According to the Latin-American Criminology Society, such riots and conflicts are likely to increase due to the foreseeable increase in contagion and deaths (caused by lack of healthcare, structural material conditions and overcrowding) as well as to the continued restrictions on family visits that provide persons in prison with medicine, food and personal hygiene.[65]

RISK MITIGATION AS THE ONLY VIABLE PUBLIC HEALTH STRATEGY IN PRISONS

70. Evidence shows that decreasing prison population is an urgent priority for mitigating the risks in prisons, particularly when it comes to individuals at highest risk for SARS-CoV-2 and severe COVID-19.
71. So far, high degrees of physical ("social") distancing have proven to be one of the highest-impact strategies to reduce the spread of SARS-CoV-2. Until the discovery of a vaccine to prevent transmission or effective antiviral drugs, which can extend survival and save lives, this will remain the case. Thus, the only viable public health strategy available is risk mitigation. A recent study by a team from Stanford and Yale universities of a large US jail[66] show a very large infection outbreak reduction effect of mass release of prisoners. The combination of mass release, moving those incarcerated to single cell, and testing of asymptomatic individuals had the largest impact. Given the conditions in Mexican prisons and testing capabilities in general, it is unlikely that single-celling or increased testing can be achieved to mitigate outbreaks. Therefore, release remains the only practical and viable option.
72. In our opinion, from an epidemiological perspective, local prisons in the State of Morelos and across Mexico should immediately take the steps necessary to provide for the release of any incarcerated persons who can safely be released. Such steps are necessary for the safety of

[63] Noticias en la Mira, *Riña en penal de Atlacholoaya deja 4 muertos*, https://noticiasenlamira.com/estados/al-menos-2-muertos-por-rina-en-penal-de-atlacholoaya-morelos/ 1 July 2020 [last accessed 9 July 2020]
[64] Sociedad de Criminología Latinoamericana, *Los Efectos del Coronavirus en las Cárceles de Larinoamérica*, https://criminologialatam.wordpress.com/2020/06/12/efectos-del-covid-19-carceles-de-latino-america/ 12 June 2020, p. 63 [last accessed July 9 2020]
[65] Sociedad de Criminología Latinoamericana, *Los Efectos del Coronavirus en las Cárceles de Larinoamérica*, https://criminologialatam.wordpress.com/2020/06/12/efectos-del-covid-19-carceles-de-latino-america/ 12 June 2020, p. 63 [last accessed July 9 2020]
[66] Malloy, G., Puglisi, L, et al. (2020) *The effectiveness of interventions to reduce COVID-19 transmission in a large urban jail* https://www.medrxiv.org/content/10.1101/2020.06.16.20133280v1.full.pdf

incarcerated individuals as well as the broader community as Mexico addresses the rapid spread of SARS-CoV-2.

73. Releasing incarcerated persons has a number of positive effects on public health and public safety: (i) it allows for greater physical ("social") distancing, which reduces the chance of spread if virus is introduced; (ii) it allows easier provision of preventive measures such as soap for handwashing, cleaning supplies for surfaces, frequent laundering and showers, etc.; and (iii) it helps prevent overloading the work of prison or detention staff such that they can continue to ensure the safety of detainees. The United Nations High Commissioner for Refugees, recognizing the serious public health risks posed by prisons and detention centers, has urged governments to release prisoners and detainees in order to protect their safety and as part of larger efforts to quell the spread of the virus.[67]

74. Releasing older detainees, detainees with underlying medical conditions, and detainees with disabilities, women detainees who are pregnant and detainees who are at increased risk of contracting, becoming severely ill from, and/or dying from COVID-19 due to their disability or any medical treatment necessary to treat their disability is especially urgent. Such individuals are by definition at greater risk if they remain incarcerated.

75. Reducing these risks requires decreasing prison populations, particularly individuals at highest risk for infection and severe disease. To mitigate the major risks identified above, it will be crucial not only to protect the population by releasing those already in prison, but to also avoid increasing the population of prisons, especially when it comes to individuals at high risk of infection and of severe COVID-19. From a public health perspective, keeping these individuals out of prisons while the risk of COVID-19 remains present will reduce the danger to them, their families, facility staff, and the community at large. Inversely, if high-risk individuals are returned to jails and prisons prematurely, the dangers of all of the above will increase. Because these dangers include triggering or accelerating further outbreaks, by the time this has happened it will be too late to undo the harm through re-releasing people.

76. Because alternatives to detention such as house arrest (for serious crimes) or weekly check-ins, submission of passports to the authorities or prohibition to leave a specific geographic arear are significantly less expensive, maintaining physical ("social") distancing through release will both reduce the strain on detention facilities and allow them to direct their resources where they are needed most. When it comes to decisions about detention, studies find that it is considerably more cost-effective for individuals in detention to be placed in alternatives to detention than to remain detained.[68] This is even more important during a

[67] Michelle Bachelet, *UN High Commissioner for Refugees, Urgent Action Needed to Prevent COVID-19 "Rampaging Through Places of Detention"* (Mar. 25, 2020), https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=25745&LangID=E.
[68] *See, e.g.*, Congressional Research Service, *Immigration: Alternatives to Detention (ATD) Programs*, at 13 (July 8, 2019), https://fas.org/sgp/crs/homesec/R45804.pdf.

pandemic since the prevention and healthcare costs associated with detention will likely skyrocket. Release and physical ("social") distancing are the most effective remedies to control the spread of SARS-CoV-2 in prions. In addition, prison administrations need to undertake multiple measures such as constant cleaning and disinfection of all common areas and surfaces; requiring mask wearing, regular provision of masks, gloves and PPE to all incarcerated individuals, staff and prison officials; the creation of sufficient dedicated negative pressure rooms for medical isolation of all confirmed or suspected cases; regular testing of all individuals with PCR tests and painstaking contact tracing for both staff and people in detention; and increasing the number and hours of medical staff. As such, the use of alternatives to detention will reduce the strain on facilities and agencies, increasing their ability to direct resources to those who remain detained. This will have both individual benefits for those in detention and broader public health benefits, since the safer these facilities and the people within them are, the less the risk to staff and surrounding communities.

For those who will remain in prison, taking preventive measures is necessary to identify and treat infected people and to prevent the spread of the virus in the prisons

77. For those detainees not released, it is essential to take measures that, while markedly insufficient in comparison to release, have at least some chance of slowing down the otherwise rapid spread of SARS-CoV-2 within the prison setting. These present the barest minimum with respect to such measures, which must necessarily include at least:

    a. *Intensified cleaning and disinfecting procedures, even in those facilities where SARS-CoV-2 cases have not yet been identified.* Frequently touched surfaces and objects should be cleaned and disinfected multiple times per day, especially in common areas. Such "surfaces may include objects/surfaces not ordinarily cleaned daily (e.g., doorknobs, light switches, sink handles, countertops, toilets, toilet handles, recreation equipment, kiosks, and telephones)."[69] In addition to regular cleaning routines, prison staff should also "thoroughly clean and disinfect all areas where [a] confirmed or suspected COVID-19 case spent time."[70] Prison authorities should ensure that places and objects, like yard equipment, furniture, holding tanks, and transport vans, are cleaned and disinfected several times per day with disinfectants effective against the coronavirus.

    b. *Provision of adequate cleaning supplies and personnel.* Facilities should ensure adequate supplies to support intensified cleaning and disinfection practices.[71]

    c. *Provision of a no-cost supply of soap and other hand washing materials to incarcerated*

[69] CDC, *Guidance for Correctional & Detention Facilities*, https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html (accessed May 28, 2020).
[70] *Id*.
[71] *Id*.

persons, sufficient to allow frequent hand washing. Liquid soap should be provided where possible, and if bar soap must be used, prison authorities should "ensure that it does not irritate the skin and thereby discourage frequent hand washing."[72] Facilities should also provide prisoners with running water and hand drying machines or disposable paper towels for hand washing; tissues and no-touch trash receptacles for disposal; and alcohol-based sanitizer with "at least 60% alcohol where permissible based on security restrictions."[73] Prisons should implement a facility-wide protocol and effectively train residents and staff to use it, whereby a resident who runs out of soap can obtain more promptly.

d. *Physical ("social") distancing*. Prison facilities should implement "social distancing strategies to increase the physical space between incarcerated/detained persons… regardless of the presence of symptoms."[74] Prescribed measures for implementation of physical ("social") distancing include enforcing increased spacing between individuals in holding cells and other common spaces, such as dining halls, recreational areas, intake and waiting areas, and medical examination rooms.[75] In housing units, prison administrators should reassign units to provide more space between individuals.[76]

e. *Personal protective equipment ("PPE").* There is increasing evidence that mask-wearing is one of the most effective strategies to prevent the spread of the virus. As of June 5, the World Health Organization now recommends that the general public wear cloth masks made from at least three layers of fabric "on public transport, in shops, or in other confined or crowded environments."[77]. It also recommends that people over 60 years of age, or with preexisting conditions, should wear medical masks in areas where there is community transmission of the coronavirus and physical distancing is impossible, and that all workers in clinical settings should wear medical masks in areas with widespread transmission.[78] Congregate facilities such as prisons fulfill the conditions of a confined or crowded environment. Therefore, prisoners should have access to cloth masks as described above. Because of the potential for widespread transmission in prisons and the difficulty in physical distancing, the use of medical masks – which are more effective than cloth masks -- may have to be considered as well.

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[72] *Id*.
[73] *Id*.
[74] *Id*.
[75] *Id*.
[76] *Id*.
[77] *WHO Director-General's opening remarks at the media briefing on COVID-19*, WHO (June 5, 2020), https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---5-june-2020.
[78] CDC, *Guidance for Correctional & Detention Facilities*, https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html (accessed May 28, 2020).

f. *Provision of up-to-date information and education about COVID-19*. Prison authorities should "communicate clearly and frequently with incarcerated/detained persons about changes to their daily schedule and how they can contribute to [COVID-19] risk reduction."[79] They should "[p]rovide up-to-date information about COVID-19 to incarcerated/detained persons on a regular basis" from reputable scientific sources and in simple language so that even those with less educational opportunities can understand the risks of COVID-19.[80] Authorities should post signage throughout the prison facility that (1) identifies the symptoms of COVID-19, (2) provides hand hygiene instructions, and (3) instructs incarcerated people to report symptoms to staff; they should also ensure that "signage is understandable for…those with low literacy[.]"[81] Finally, authorities should "communicate [COVID-19] information verbally on a regular basis[,]"[82] and "consider having healthcare staff perform rounds on a regular basis to answer questions about COVID-19."[83]

g. *A reliable means by which incarcerated people report symptoms of coronavirus and be seen the same day by medical staff, even if no guards or few guards are on duty in their housing units*. "As soon as an individual develops symptoms of COVID-19, they […] should be *immediately* placed under medical isolation [.]"[84] Immediate action decreases the possibility that a person with the virus will transmit it to others in the unit. For immediate action to occur, a means must exist for residents to inform staff who will take prompt action. It is important to note, however, that medical isolation is NOT the same as solitary confinement and that under no circumstances should those requiring medical isolation be placed in solitary confinement.

h. *Temperature checks*. Prison authorities should implement daily temperature checks in housing units where COVID-19 cases have been identified, especially if there is concern that incarcerated/detained individuals are not notifying staff of symptoms.[85] However, many infected individuals can be asymptomatic or pre-symptomatic. Moreover, many individuals with a coronavirus infection do not have a fever or display the symptoms that the general public has come to associate with the disease, like coughs or fevers. Others are entirely asymptomatic or have not yet developed symptoms, but are still contagious. Neither group would be identified by common screening procedures such as temperature checks. The only remedy is to institute widespread testing of asymptomatic individuals and isolate those identified as asymptomatic

[79] *Id*.
[80] *Id*.
[81] *Id*. Corine S. Meppelink et al., *Should we be afraid of simple messages? The effects of text difficulty and illustrations in people with low or high health literacy*, 30 Health Communication 1181 (2015).
[82] CDC, *Guidance for Correctional & Detention Facilities*, https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html (accessed May 28, 2020).
[83] *Id*.
[84] *Id*. (emphasis added).
[85] *Id*.

carriers.

i. *Reporting of violations*. Effective written policies mean nothing if they are not enforced. Facilities should provide an anonymous mechanism for incarcerated individuals to report ineffective implementation of policies, including if staff violate protocol, so that appropriate corrective action may be taken.

j. *Medical isolation unique from solitary confinement*. Solitary confinement and quarantine do not provide the protections of medical isolation and should not be used as an alternative.[86] Moreover, use of solitary confinement can greatly exacerbate mental health conditions, further putting prisoners at risk.[87]

CONCLUSION

78. It is our professional opinion that from a medical and public health perspective, the detention of individuals will significantly increase SARS-CoV-2 risks of infection to them, others in the facility, the staff, and the surrounding community. Prisons are kindling for the fires of epidemics. They are the perfect place for outbreaks to take hold, take off, and spread. We have seen it with tuberculosis, measles, and other infections in the context of prisons around the world, we are now seeing it with SARS-CoV-2.

79. Therefore, from a public health perspective, it is our strong opinion that the population of prisons of the State of Morelos and across Mexico must be dramatically reduced as soon as possible following an organized and feasible plan. Reducing the size of the population in prisons is the most high-impact intervention and crucially important to reducing the level of risk both for those within those facilities and for the community at large. A single weak link in the chain can lead to a surge of SARS-CoV-2 infections and subsequent COVID-19 cases in the broader community. Thus, to stop the SARS-CoV-2 epidemic, it must be stopped in prisons. A necessary component of this is reducing the population of these facilities and keeping it small.

80. This is especially important—indeed a matter of imminent life or death—for individuals with preexisting conditions, including those with lung disease or weakened lungs due to smoking or asthma, heart disease, obesity, hypertension, diabetes or prediabetes, blood disorders, chronic liver or kidney disease, inherited metabolic disorders, developmental delays, those who are immunocompromised (such as from cancer, HIV, autoimmune diseases, or immunosuppressant medications), those who have survived strokes, and those who are

[86] *See* David Cloud, et al., *The Ethical Use of Medical Isolation – Not Solitary Confinement – to Reduce COVID-19 Transmission in Correctional Settings*, Amend (April 9, 2020), https://amend.us/wp-content/uploads/2020/04/Medical-Isolation-vs-Solitary_Amend.pdf.
[87] Keramet Reiter et al., *Psychological Distress in Solitary Confinement: Symptoms, Severity, and Prevalence in the United States, 2017-2018*, Am. Pub. Health Ass. (Jan. 22, 2020), *available at* https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305375.

pregnant) or who are over the age of 60. This list is merely illustrative and not comprehensive.

81. Nonetheless, it remains the case, given the conditions in these facilities and the infectiousness of SARS-CoV-2, that *everyone* in those facilities is right now at serious risk of contracting SARS-CoV-2 and at risk of serious disease and death. It is now a matter of hours not days for decisive action to be taken to save lives. In the span of weeks, one case at one facility can mushroom to many cases. With current conditions, total spread is sure to follow because of under-resourced, minimally-implemented or impossible infection prevention and control measures.

82. In our opinion, from epidemiological, public health, and medical perspectives, the Court should immediately take the steps necessary to provide for the release of any detainees in these facilities, absent extraordinary circumstances, who would not pose a risk to the public. By the time a prison administration realizes that there are new COVID-19 cases, it will likely already be too late to prevent a full-blown outbreak in the facility and to prevent it from spreading to the community at large. For this reason, it is crucial to err on the side of caution when determining whether to continue to detain someone.

83. Conditions related to SARS-CoV-2 and COVID-19 are changing rapidly and may change, albeit likely worsen, between the time we execute this Report and when this matter appears before the Court.

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