

### **ABOUT THE POVERTY LAW & POLICY CLINIC**

The Poverty Law & Policy Clinic (PLPC) is a Thomas & Mack Legal Clinic at the William S. Boyd School of Law at the University of Nevada, Las Vegas (UNLV) founded and directed by Professor Rachel J. Anderson. The PLPC is a public-interest clinic that teaches law students how to use law and policy to help Nevadans with the greatest needs through hands-on learning experiences as student attorneys contributing to systemic change so that more Nevadans can live lives full of opportunity. Student attorneys in the PLPC work on issues that intersect with poverty, including housing insecurity, food insecurity and nutrition, health and mental health, education, disability, transportation, voting, environment, internet access, and criminalization. PLPC student attorneys' work includes conducting legal and policy research, drafting legal and policy documents, presenting results, and testifying before law-making, administrative, and other bodies. The PLPC works with government agencies, public officials, non-profit organizations, direct service providers, and other organizations, decision-makers, and groups.

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## **Memorandum**

To: Tick Segerblom, Commission Chairman, Clark County  
Beatriz Martinez, Chief of Staff for Commissioner Tick Segerblom, Clark County

From: Aika Dietz, Student Attorney, Poverty Law & Policy Clinic

Copy: George McMullin, Student Attorney, Poverty Law & Policy Clinic  
Professor Rachel J. Anderson, Director, Poverty Law & Policy Clinic  
Professor Angela Cook, Supervising Attorney, Poverty Law & Policy Clinic

Date: May 7, 2025

Re: Long-Term Covid-19 in Congregate Housing

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## **Introduction**

On January 22, 2024, Clark County and the Board of Regents of the Nevada System of Higher Education, on behalf of the University of Nevada, Las Vegas, William S. Boyd School of Law entered into CBE No. 606844-23, Interlocal Agreement for Poverty Law and Policy Collaboration. This agreement sets forth a collaboration between Clark County and the Poverty Law & Policy Clinic (PLPC) to help people who are unhoused through various projects. The PLPC met with Clark County Commission Chair Tick Segerblom and his Chief of Staff Beatriz Martinez on January 23, 2025. At that meeting, Commissioner Segerblom and Chief of Staff Martinez stated that they would like our thoughts on how to help people facing housing

insecurity. This project was conceived by PLPC Certified Student Attorney Aika Dietz in spring 2025.

The CDC defines Long COVID as a constellation of symptoms that persist for at least four weeks after the initial illness. Most cases follow mild infections; studies estimate that 76% to 90% occur after non-severe illness.<sup>1</sup> Recovery is rare: only 6% to 9% of affected individuals fully recover within two to three years.<sup>2</sup> Clinically, Long COVID presents with extraordinary complexity.<sup>3</sup> More than 200 symptoms have been documented, affecting nearly every major organ system.<sup>4</sup> Common manifestations include profound fatigue comparable to Parkinson's disease<sup>5</sup>, significant cognitive impairment<sup>6</sup>, cardiovascular complications such as heart attacks and strokes<sup>7</sup>, respiratory difficulties<sup>8</sup>, and gastrointestinal disruption.<sup>9</sup> The neurological effects—especially “brain fog”—have drawn particular concern.<sup>10</sup> Studies suggest that Long COVID may cause cognitive decline equivalent to a decade of aging.<sup>11</sup> These neurological deficits often

<sup>1</sup> Patient-Led Research Collaborative, *Long COVID Awareness Day: 2025 Fact Sheet*, PATIENTRESEARCHCOVID19 (Mar. 2025), [https://patientresearchcovid19.com/storage/2025/03/Long-COVID-Awareness-Day\\_-2025-Fact-Sheet.pdf](https://patientresearchcovid19.com/storage/2025/03/Long-COVID-Awareness-Day_-2025-Fact-Sheet.pdf).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> Ziyad Al-Aly et al., (2024). *Long-COVID Science, Research and Policy*. NAT. MED., 1–17.

<https://doi.org/10.1038/s41591-024-03173-6> (2024).

<sup>5</sup> Gregory L. Willis, Takuyuki Endo & Saburo Sakoda, *Circadian Re-Set Repairs Long-COVID in a Prodromal Parkinson's Parallel: A Case Series*, 18 J. MED. CASE REPS. 496 (2024),

<https://jmedicalcasereports.biomedcentral.com/articles/10.1186/s13256-024-04812-9>.

<sup>6</sup> Studies show that COVID-19 can shrink brain tissue, disrupt memory circuits, and slow down mental processing. Brain scans reveal actual physical changes, including damage to white matter—the brain's wiring system. Scardua-Silva et al., *Microstructural Brain Abnormalities, Fatigue, and Cognitive Dysfunction After Mild COVID-19*, SCI. REP. (2024); Jacqueline H. Becker, et al., *Assessment of Cognitive Function in Patients After COVID-19 Infection* (2021); Ziyad Al-Aly & Clifford J. Rosen, *Long Covid and Impaired Cognition —More Evidence and More Work to Do* (2024).

<sup>7</sup> Yan Xie et al., *Long-Term Cardiovascular Outcomes of COVID-19*, 28 NAT. MED. 583 (2022),

<https://www.nature.com/articles/s41591-022-01689-3>.

<sup>8</sup> Cong Dien Trinh et al., *Lung Abnormalities on Computed Tomography of Vietnamese Patients with COVID-19 and the Association with Medical Variables*, 10 IJID Reg. 183 (2024), <https://pubmed.ncbi.nlm.nih.gov/38351902/>.

<sup>9</sup> Hannah Meringer & Saurabh Mehandru, *Gastrointestinal Post-Acute COVID-19 Syndrome*, 19 NAT. REV. GASTROENTEROL. HEPATOL. 345 (2022), <https://doi.org/10.1038/s41575-022-00626-3>; Univ. of Okla. Coll. of Med., *Digestive Problems in Long COVID Linked to Psychological Trauma*, OU COLL. OF MED., <https://medicine.ouhsc.edu/news/article/digestive-problems-in-long-covid-linked-to-psychological-trauma-according-to-ou-college-of-medicine-research>.

<sup>10</sup> Ali A. Asadi-Pooya et al., *Long-COVID Syndrome—Associated Brain Fog*, 94 J. MED. VIROL. 979 (2022).

<sup>11</sup> *Id.*

coincide with elevated rates of anxiety, depression, and post-traumatic stress disorder among survivors.<sup>12</sup>

Long COVID falls hardest on people who are already unhoused—exposing them to greater health risks and deeper barriers to recovery—therefore any serious effort to reduce homelessness in Clark County must include targeted measures to prevent, diagnose, and treat Long COVID for this too-often overlooked population. To assist the County’s decision-makers, this memorandum (1) highlights some of the latest research on Long COVID; (2) explains some of the interactions between Long COVID and poverty; and (3) identifies a possible two-tiered response—immediate deployment of portable HEPA air purifiers and high-quality masks in congregate shelters, followed by creation of a multidisciplinary Long COVID Task Force to collect data, train providers, and coordinate policy. The first section discusses the federal government’s withdrawal of leadership and resources for Long COVID. The second section discusses challenges associated with Long COVID’s nexus with homelessness. The third section identifies possible measures that could be implemented to reduce the spread of Long COVID in congregate housing.

## **1 Federal Withdrawal of Leadership and Resources for Long COVID**

This section traces the federal government’s brief rise and recent retreat in Long COVID policy; explains how the resulting loss of research, coordination, and funding heightens both the legal exposure and public-health burden facing Clark County; and shows why the County may want to assume primary responsibility for protecting residents who suffer from this still-emerging condition.

Federal and state support for individuals suffering from Long COVID has historically been minimal, in large part because the condition is new and the medical community’s understanding of it is still evolving.<sup>13</sup> The federal government made an initial investment in Long COVID research relatively early—allocating \$1.15 billion to the National Institutes of Health’s

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<sup>12</sup> Yunhe Wang et al., *Long-Term Risk of Psychiatric Disorder and Psychotropic Prescription After SARS-CoV-2 Infection Among UK General Population*, 8 Nat. Hum. Behav. 1 (2024), <https://www.nature.com/articles/s41562-024-01853-4>.

<sup>13</sup> See e.g., Danielle Hitch, *Why We Must Keep Using the Term 'Long COVID'*, INSIGHT+ (Apr. 8, 2024), <https://insightplus.mja.com.au/2024/13/why-we-must-keep-using-the-term-long-covid/>.

RECOVER program in December 2020.<sup>14</sup> This early federal investment offered hope to patients and jump-started research efforts.<sup>15</sup> Several federal efforts followed, including the establishment of an Office of Long COVID Research and Practice within the U.S. Department of Health and Human Services (HHS) in 2023 to coordinate a government-wide response.<sup>16</sup> Still, these measures were limited in scope. No comprehensive long-term support system was put in place at the federal level. State-level programs were fragmented and inconsistent—typically offering limited assistance through pre-existing disability or public health frameworks rather than creating targeted stand-alone initiatives for Long COVID.<sup>17</sup> Meaningful government support for Long COVID sufferers lagged behind the growing scale of the problem, as scientific knowledge was still catching up to the condition’s complexity.<sup>18</sup>

Although some momentum was built during 2020–2022, federal support has now dramatically receded.<sup>19</sup> Several key federal initiatives have been reduced or terminated, contributing to a vacuum in leadership and resources at the national level, including closure of HHS’s Long COVID Office, disbanding of the Long COVID Advisory Committee, termination of NIH-funded Long COVID research projects, and rescission of public health funds affecting Long COVID support.

- **Closure of HHS’s Long COVID Office:** In March 2025, an internal HHS announcement confirmed that the Office of Long COVID Research and Practice will be closing as part of a departmental reorganization.<sup>20</sup> This office served as the primary federal unit coordinating Long COVID strategy and resources;<sup>21</sup> its dissolution marks a clear retreat of federal engagement on this issue. Agency staff noted that shutting down the office will

<sup>14</sup> Steven Phillips, *The Trump Years Will be Grim for Long Covid Sufferers*, STAT NEWS (Feb. 27, 2025), <https://www.statnews.com/2025/02/27/long-covid-hhs-secretary-advisory-committee-disbanded-trump-rfk-jr/>.

<sup>15</sup> *Id.*

<sup>16</sup> Sophie Gardner & Alice Miranda Ollstein, *Long Covid Office ‘Will be Closing,’ Trump Administration Announces*, POLITICO (Mar. 24, 2025, 9:21 PM), <https://www.politico.com/news/2025/03/24/trump-administration-shuttering-office-of-long-covid-research-and-practice-00246836#:~:text=OLC%2C%20housed%20within%20the%20Office,wide%20long%20Covid%20strategy.>

<sup>17</sup> See *The Federal Long COVID—Here’s What We Know*, GLOBAL AUTOIMMUNE INSTITUTE, [https://www.autoimmuneinstitute.org/covid\\_timeline/office-of-long-covid-research-and-practice-closure/](https://www.autoimmuneinstitute.org/covid_timeline/office-of-long-covid-research-and-practice-closure/) (last visited Apr. 28, 2025).

<sup>18</sup> *Long-Covid Patients Are Frustrated That Federal Research Hasn’t Found New Treatments*, KFF HEALTH NEWS (Jan. 22, 2025), <https://kffhealthnews.org/news/article/long-covid-nih-recover-clinical-trials-treatment-pennsylvania-texas/#:~:text=Estimates%20of%20prevalence%20range%20considerably%2C,it%20at%2017%20million%20adults.>

<sup>19</sup> Phillips, *supra* note 2.

<sup>20</sup> Gardner & Ollstein, *supra* note 4.

<sup>21</sup> *Id.*

likely save a small amount of money but could cost more in the long run—warning that abandoning a coordinated Long COVID response now means “the country’s health care system will have to provide years if not decades of costly care for tens of millions of chronically ill people.”<sup>22</sup>

- **Disbanding of the Long COVID Advisory Committee:** Around the same time, the federal government terminated the HHS Secretary’s Advisory Committee on Long COVID. On February 19, 2025, a presidential executive order directed HHS to disband the advisory panel.<sup>23</sup> The committee consisted of experts and stakeholders guiding federal policy on Long COVID.<sup>24</sup> Its abrupt elimination underscores the end of what was an advisory and planning infrastructure at the federal level. This occurred under an executive order, tellingly titled, “Commencing the Reduction of the Federal Bureaucracy,” signaling that the move was part of broader budget-cutting priorities.<sup>25</sup>
- **Termination of NIH-Funded Long COVID Research Projects:** The NIH’s flagship RECOVER initiative has seen its research efforts curtailed. In early 2025, NIH abruptly terminated funding for a slew of Long COVID studies, including all ongoing pathobiology projects under RECOVER.<sup>26</sup> While there was later evidence that some of the distinct 45 Long COVID research studies’ grants were reinstated, it is unclear whether all of the studies have received funding again.<sup>27</sup>
- **Rescission of Public Health Funds Affecting Long COVID Support:** In a related development, the federal administration has pulled back broad public health funding that also underpinned many COVID-related services. In early 2025, the HHS leadership rescinded nearly \$12 billion in federal public health grants that were allocated by Congress during the pandemic.<sup>28</sup> These funds supported a range of programs—from COVID-19 testing and vaccination efforts to community health initiatives—some of which benefit Long COVID patients (for instance, through clinics for post-COVID care, mental health support, and rehabilitation services).<sup>29</sup> The withdrawal of these funds has been widely contested: a coalition of 23 states (including Nevada) filed a lawsuit to overturn the grant terminations, arguing that the cuts were abrupt, unlawful, and would

<sup>22</sup> *Id.*

<sup>23</sup> Phillips, *supra* note 2.

<sup>24</sup> Exec. Order No. 14,217, 90 Fed. Reg. 10,577 (Feb. 19, 2025); Miles W. Griffis, *Trump Commands HHS to Terminate Advisory Committee on Long COVID*, THE SICK TIMES (Feb. 21, 2025), <https://thesicktimes.org/2025/02/21/trump-commands-hhs-to-terminate-advisory-committee-on-long-covid/#:~:text=A%20new%20executive%20order%20from,Advisory%20Committee%20on%20Long%20COVID.>

<sup>25</sup> Exec. Order No. 14,217, *supra* note 12.

<sup>26</sup> Rowan Walrath, *NIH Cancels RECOVER Grants for Long COVID Projects*, C&EN (Mar. 27, 2025), <https://cen.acs.org/policy/research-funding/NIH-cancels-RECOVER-grants-long/103/web/2025/03/#:~:text=President%20Donald%20J,mechanism%20for%20long%20COVID%20research.>

<sup>27</sup> *Id.*

<sup>28</sup> NEV. ATT’Y GEN.’S OFF., *Attorney General Ford Sues HHS, Sec. Kennedy to Overturn Public Health Grant Cuts* (Apr. 1, 2025), [https://ag.nv.gov/News/PR/2025/Attorney\\_General\\_Ford\\_Sues\\_HHS,\\_Sec\\_Kennedy\\_to\\_Overtturn\\_Public\\_Health\\_Grant\\_Cuts/](https://ag.nv.gov/News/PR/2025/Attorney_General_Ford_Sues_HHS,_Sec_Kennedy_to_Overtturn_Public_Health_Grant_Cuts/).

<sup>29</sup> *Id.*

cause “serious harm to public health” in their communities.<sup>30</sup> Nevada’s Attorney General has noted that if the rescission stands, Nevada alone will lose approximately \$35 million in funding for local public health services, impacting resources like the state public health lab and regional crisis care centers.<sup>31</sup> Such cuts have an immediate effect on public health infrastructure—for example, some states have already had to issue mass layoff notices to health department staff due to the loss of federal grant support.<sup>32</sup>

Collectively, these developments represent a significant withdrawal of federal leadership and resources that address Long COVID. Initial federal efforts that were in place—modest in hindsight—have now been reduced significantly or outright eliminated.<sup>33</sup> The office dedicated to lead the nation’s Long COVID response no longer exists; advisory and coordination bodies have been disbanded; and ongoing research funding has been slashed.<sup>34</sup> Long COVID patients and the medical community now have far less federal support to turn to than they did even a year ago.<sup>35</sup> The limited federal attention once devoted to Long COVID has largely waned. Experts now argue that government investment in the condition has “all but ended”—even as millions still suffer.<sup>36</sup>

The lack of federal leadership in Long COVID care and research places the burden on state and local agencies to fill the void. In the absence of robust federal programs, local government departments—including entities like the Clark County Social Services Department—may need to step in and develop supportive measures at the community level to help those suffering from Long COVID. Without intervention, Long COVID sufferers may slip through the cracks of the social safety net, creating severe consequences for both individuals and public systems. HHS’s own Long COVID office staff warned, upon the office’s closure, that many Long COVID patients require services beyond clinical treatment, asking “how do they live a life” if they can no longer care for themselves and no medical solution is yet available?<sup>37</sup>

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<sup>30</sup> Devna Bose & Lindsey Whitehurst, *States Sue Trump Administration for Rescinding Billions in Health Funding*, ASSOCIATED PRESS (Apr. 1, 2025, 2:24 PM), <https://apnews.com/article/trump-covid-federal-money-lawsuit-e2fcacccfda994500ce92be94d1ada7d>.

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> *Morning Briefing*, KFF HEALTH NEWS (Feb. 27, 2025), <https://kffhealthnews.org/morning-briefing/thursday-february-27-2025/>.

<sup>34</sup> *Id.*

<sup>35</sup> Gardner & Ollstein, *supra* note 4.

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*



In the absence of federal support, local counties and states could consider establishing their own Long COVID task forces, dedicating resources to Long COVID clinics or support programs, and integrating Long COVID into existing services (such as disability accommodations, employment assistance, and public benefits) to help those suffering from Long COVID. From a policy perspective, this local action could help to prevent further harm to residents and uphold the public welfare. As federal support has waned significantly, Clark County and Nevada authorities may be the last line of defense for Long COVID sufferers.

## **2 Long COVID Risks in Homeless and Congregate Living Environments**

This Part proceeds in three stages. Section 1 surveys the medical literature and public-health data to establish the scale and severity of Long COVID as a mass-disabling condition. Section 2 discusses the illness’s macro- and micro-economic effects—first nationwide, then with a focus on Clark County’s leisure, hospitality, and construction sectors—to show how reduced labor supply and productivity compound the crisis. Section 3 turns to the nexus between Long COVID and homelessness. Subsection 3A traces the typical cascade from prolonged illness to job loss, income shock, housing insecurity, and, ultimately, homelessness; Subsection 3B explains why traditional congregate shelters are ill-equipped for people with Long COVID and how that vulnerability leaves this population doubly exposed to reinfection and prolonged disability.

### **2.1 Long COVID as a Public Health Crisis**

Long COVID is a global public health crisis.<sup>38</sup> Over 400 million people worldwide have been impacted by Long COVID.<sup>39</sup> The latest Center for Disease Control (CDC) data on Long COVID<sup>40</sup> in U.S. adults, and an alarming World Health Organization (WHO) statement<sup>41</sup> about its long-term impact, underscore the pandemic’s lingering and debilitating effects. Experts now

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<sup>38</sup> *Long COVID: Confronting a Growing Public Health Crisis*, 11 LANCET RESPIR. MED. 663, 663 (2023); Mark A. Faghy et al., *Is Long COVID the Next Global Health Crisis?*, 12 J. GLOBAL HEALTH 1, 4–5 (2022).

<sup>39</sup> Ziyad Al-Aly et al., *Long COVID Science, Research and Policy*, 30 NAT. MED. 2148, 2150 (2024).

<sup>40</sup> NAT’L CTR. FOR HEALTH STAT., CTRS. FOR DISEASE CONTROL & PREVENTION, *CDC Science and the Public Health Approach to Long COVID*, <https://www.cdc.gov/covid/php/long-covid/index.html> (last visited Apr. 28, 2025).

<sup>41</sup> WHO: ‘Long COVID’ May Obstruct Return to Normal Life for 36 Million Europeans, UN NEWS (June 27, 2023), <https://news.un.org/en/story/2023/06/1138157>.

call Long COVID the greatest mass-disabling event in human history.<sup>42</sup> It disrupts daily functioning and quality of life, comparable to severe chronic illnesses such as Parkinson's disease or metastatic cancers.<sup>43</sup>

At first, when the CDC started tracking Long COVID via the Household Pulse Survey, over one-third of adults with a history of the virus reported enduring symptoms.<sup>44</sup> This figure varied, decreasing until October 2023 and then rising to nearly 30% by February 2024.<sup>45</sup> Consistently, a smaller percentage—about 10%—report currently experiencing Long COVID symptoms each month since December 2022.<sup>46</sup> About 60% of U.S. adults who have had COVID-19 say they've experienced Long COVID at some stage.<sup>47</sup> In 2024, 17 million people were diagnosed with Long COVID, putting its prevalence on par with major health issues like cancer and coronary artery disease.<sup>48</sup> Many other cases are likely going undiagnosed or misdiagnosed.<sup>49</sup>

## 2.2 Long COVID as an Economic Crisis

Long COVID is not just a health crisis but a significant economic challenge affecting labor availability and productivity. This section addresses the economic impacts of Long COVID nationally, with specific analysis of its implications for key industries in Clark County, Nevada, particularly leisure, hospitality, and construction.

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<sup>42</sup> See e.g., Jamie Ducharme, *Long COVID Experts and Advocates Say the Government Is Ignoring 'the Greatest Mass-Disabling Event in Human History'*, TIME (Sept. 19, 2022, 12:35 PM), <https://time.com/6213103/us-government-long-covid-response/>; Marishelle Lieberwerth, *Lost and Changed Meaning in Life of People with Long Covid: A Qualitative Study*, 19 INT'L J. QUAL. STUD. HEALTH WELL-BEING 1, 1 (2024).

<sup>43</sup> Sarah Walker et al., *Impact of Fatigue as the Primary Determinant of Functional Limitations Among Patients with Post-COVID-19 Syndrome: A Cross-Sectional Observational Study*, 13 BRIT. MED. J. 1, 8 (2023).

<sup>44</sup> *Household Pulse Survey: Measuring Emergent Social and Economic Matters Facing U.S. Households*, CENSUS (Dec. 19, 2024), <https://www.census.gov/data/experimental-data-products/household-pulse-survey.html>.

<sup>45</sup> Alice Burns, *As Recommendations for Isolation End, How Common is Long COVID?*, KFF (Apr. 9, 2024), <https://www.kff.org/coronavirus-covid-19/issue-brief/as-recommendations-for-isolation-end-how-common-is-long-covid/>.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> Lisa Sanders, *What Is Long COVID? Understanding the Pandemic's Mysterious Fallout*, YALE MEDICINE (Apr. 15, 2024), <https://www.yalemedicine.org/news/what-is-long-covid>.

<sup>49</sup> Patient-Led Rsch. Collaborative, *2025 Long COVID Fact Sheet* (Mar. 2025), <https://patientresearchcovid19.com/2025-long-covid-fact-sheet/>.



Long COVID has notably disrupted employment.<sup>50</sup> According to data analyzed by the Brookings Institution, Long COVID has significantly contributed to labor shortages, with approximately 1.6 million full-time workers absent from the workforce due to persistent symptoms.<sup>51</sup> This figure is particularly alarming considering that the nation remains approximately 2.2 million workers short compared to pre-pandemic levels.<sup>52</sup> The condition's broad spectrum of debilitating symptoms—ranging from chronic fatigue to cognitive impairment—has led 45% of affected workers to reduce their hours, complicating workforce management and diminishing productivity.<sup>53</sup>

The leisure and hospitality sector, dominant in Clark County<sup>54</sup>, experienced substantial employment disruptions during the pandemic, declining 47% from February to April 2020 and remaining approximately 24% below pre-pandemic levels even after initial recovery efforts.<sup>55</sup> Clark County's economic vulnerability stems from its heavy reliance on this sector, which accounts for roughly one-third of all jobs and employs over 280,000 workers locally.<sup>56</sup> The construction sector—another critical industry in Las Vegas<sup>57</sup>—is simultaneously grappling with severe labor shortages exacerbated by the broader labor shortage nationally.<sup>58</sup> By 2025, the

<sup>50</sup> Burns, *supra* note 40; Nat'l Conf. of State Legislatures, *Long COVID-19 and Disability Accommodations in the Workplace* (Mar. 13, 2024), <https://www.ncsl.org/labor-and-employment/long-covid-19-and-disability-accommodations-in-the-workplace>.

<sup>51</sup> Brookings Institution, as cited in CBS News, 2022.

<sup>52</sup> Greg Iacurci, *Long Covid Has 'Underappreciated' Role in Labor Gap: Study*, CNBC (Jan. 30, 2023, 2:18 PM), <https://www.cnbc.com/2023/01/30/long-covid-has-underappreciated-role-in-labor-gap-study.html>.

<sup>53</sup> Nat'l Conf. of State Legislatures, *Long COVID-19 and Disability Accommodations in the Workplace* (Mar. 13, 2024).

<sup>54</sup> CLARK CNTY. GOV'T, *Recovery Plan Performance Report: 2024 Report* (2024), [https://webfiles.clarkcountynv.gov//COVID19/ARPA/Annual%20Performance%20Reports/Clark\\_County\\_2024\\_Recovery\\_Plan\\_Performance\\_Report.pdf](https://webfiles.clarkcountynv.gov//COVID19/ARPA/Annual%20Performance%20Reports/Clark_County_2024_Recovery_Plan_Performance_Report.pdf); *Out of Town Spotlight: CLARK COUNTY, NEVADA*, LOS ANGELES BUSINESS JOURNAL (Aug. 31, 2022), <https://labusinessjournal.com/branded-content/out-of-town-spotlight-clark-county-nevada/#:~:text=Which%20industries%20are%20demonstrating%20the,between%202010%20and%202019%2C%20respectively.>

<sup>55</sup> *The Economic Impact of Long COVID on Business Operations and Labor Markets: A Focus on the United States and Clark County, Nevada*, BUSINESS IN CLARK COUNTY (2023), <https://businessinclarkcounty.com/wp-content/uploads/Mapping-Clark-Countys-Future-An-Analysis-of-Clark-Countys-Communities-and-Economy.pdf>.

<sup>56</sup> *Id.*

<sup>57</sup> Tiffany Lane, *Board to Vote on Possibly Delaying CCSD Construction Projects Because of Increased Costs*, KSNV NEWS 3 LAS VEGAS (Apr. 24, 7:03 PM), <https://news3lv.com/news/local/board-to-vote-on-possibly-delaying-ccsd-construction-projects-because-of-increased-costs>.

<sup>58</sup> Katie Ann McCarver, *Shifting Construction Industry Could Change Status Quo for Workforce*, VEGAS INC. (Feb. 10, 2025, 2:00 AM), <https://vegasinc.lasvegassun.com/news/2025/feb/10/shifting-construction-industry-could-change-status/>.

Associated Builders and Contractors estimate a deficit of approximately 439,000 workers nationally, with Long COVID exacerbating these shortages through prolonged worker absences, reduced productivity, and heightened safety risks.<sup>59</sup> Given Clark County's future growth,<sup>60</sup> such workforce limitations could pose considerable threats to local economic development.

The broader economic impacts of Long COVID are substantial and multifaceted. Harvard research has calculated the total U.S. economic burden of Long COVID at approximately \$3.7 trillion, encompassing lost quality of life, diminished earnings, and additional healthcare expenses.<sup>61</sup> Long COVID's impact transcends traditional employment boundaries, affecting essential and non-essential sectors alike. According to the U.S. Census Household Pulse Survey, approximately 5.5-7.0% of U.S. adults reported experiencing Long COVID symptoms during 2022-2023, impacting essential, non-essential, and non-working individuals nearly equally.<sup>62</sup>

Employers' response to Long COVID has been inconsistent, adding complexity to workforce recovery. According to a 2022 Kessler Foundation survey, while 40% of nearly 3,800 surveyed managers reported seeing lasting COVID-19 symptoms among employees, only 58% provided workplace accommodations.<sup>63</sup> This response has left many workers unsupported and contributed to national productivity losses estimated between \$170 billion and \$230 billion annually.<sup>64</sup>

## 2.3 Long COVID, Vulnerable Populations, and Homelessness

The COVID-19 pandemic has had far-reaching impacts across society, but certain vulnerable populations have borne a disproportionate burden.<sup>65</sup> Long COVID is a chronic

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<sup>59</sup> ABC Rocky Mountain Chapter Staff, *Navigating the Construction Worker Shortage in 2025*, ABC ROCKY MOUNTAIN (Jan. 24, 2025, 9:35 PM), <https://www.abcrmc.org/construction-worker-shortage/>.

<sup>60</sup> Ctr. for Bus. & Econ. Research, *2024–2060 Population Forecasts: Long-Term Projections for Clark County, Nevada* (June 2024), <https://cber.unlv.edu/wp-content/uploads/2024/06/Population-Forecast-2024.pdf>.

<sup>61</sup> ABC Rocky Mountain Chapter Staff, *Navigating the Construction Worker Shortage in 2025*, ABC ROCKY MOUNTAIN (Jan. 24, 2025, 9:35 PM), <https://www.abcrmc.org/construction-worker-shortage/>.

<sup>62</sup> Kara Suvada, Trinidad Beleche & Deborah Porterfield, *Long COVID-19 among Essential Workers, Non-Essential Workers, and Not Working Persons in the United States, 2022–2023: A Cross-Sectional Study*, OFF. ASSISTANT SEC'Y FOR PLAN. & EVALUATION, U.S. DEP'T HEALTH & HUM. SERVS. (Jan. 2025), <https://aspe.hhs.gov/reports>.

<sup>63</sup> Nat'l Conf. of State Legislatures, *Long COVID-19 and Disability Accommodations in the Workplace* (Mar. 13, 2024).

<sup>64</sup> *Id.*

<sup>65</sup> Kristen R. Prentice et al., *Advancing Health Equity in the Aftermath of COVID-19: Confronting Intensifying Racial Disparities*, 27 iSCIENCE, no. 7, July 19, 2024, <https://doi.org/10.1016/j.isci.2024.110257>.

condition that often leaves individuals unable to work, in need of ongoing medical care, or struggling with daily functioning.<sup>66</sup> These burdens have fallen disproportionately on groups already contending with systemic inequities—particularly women, racial and ethnic minorities, sexual and gender minorities, and individuals with lower levels of education.<sup>67</sup> Hispanic adults report higher rates of Long COVID than any other group, followed closely by Black Americans, of whom nearly 32% have experienced long-term symptoms following COVID infection.<sup>68</sup> These same communities have faced longstanding disparities in healthcare access, treatment quality, and economic stability—conditions that now compound the effects of chronic illness.<sup>69</sup>

These risks are further magnified for individuals experiencing homelessness.<sup>70</sup> In Clark County, the intersection of race, gender, sexual orientation, and housing insecurity makes the burden of Long COVID particularly acute.<sup>71</sup> Though Black residents make up only 12% of the county’s general population, they account for 42% of its homeless population<sup>72</sup>; women comprise nearly two-thirds of all people experiencing homelessness in the region<sup>73</sup>; and LGBTQ youth make up an estimated 40% of the homeless youth population.<sup>74</sup> These are precisely the

<sup>66</sup> National Academies of Sciences, Engineering, and Medicine, *Long-Term Health Effects of COVID-19: Disability and Function Following SARS-CoV-2 Infection* (C.M. Spicer, B.X. Chu & P.A. Volberding eds., 2024), <https://www.ncbi.nlm.nih.gov/books/NBK607399/>.

<sup>67</sup> Jennifer Cohen & Yana van der Meulen Rodgers, *An Intersectional Analysis of Long-COVID Prevalence*, 22 INT’L J. EQUITY HEALTH 261, 261 (2023); Dhruv Khullar et al., *Racial/Ethnic Disparities in Post-acute Sequelae of SARS-CoV-2 Infection in New York: an EHR-Based Cohort Study from the RECOVER Program*, 38 J. GEN. INTERN. MED. 1127, 1127 (2023); Brian Glassman, *Household Pulse Survey Shows 31.1% Reported Symptoms Three Months or Longer After They Had COVID-19*, CENSUS (May 1, 2023), <https://www.census.gov/library/stories/2023/05/long-covid-19-symptoms-reported.html>; NAT’L CTR. FOR HEALTH STAT., CTRS. FOR DISEASE CONTROL & PREVENTION, *Long COVID*, <https://www.cdc.gov/nchs/covid19/pulse/long-covid.htm> (last visited Apr. 28, 2025).

<sup>68</sup> *Id.*

<sup>69</sup> Samantha Artiga & Nambi Ndugga, *How Present-Day Health Disparities for Black People Are Linked to Past Policies and Events*, KFF (Feb. 7, 2024), <https://www.kff.org/racial-equity-and-health-policy/issue-brief/how-present-day-health-disparities-for-black-people-are-linked-to-past-policies-and-events/>; Sadia Anjum Ashrafi et al., *Disparities in Healthcare Access Experienced by Hispanic Chronic Kidney Disease Patients: A Cross-Sectional Analysis*, 43 J. HEALTH POPUL. NUTR. 18 (2024), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10832131/>.

<sup>70</sup> Southern Nevada Homelessness Continuum of Care, *2024 PIT Count Executive Summary Final Report* (Sept. 2024), <https://helphomehome.org/wp-content/uploads/2024/09/2024-PIT-Count-Executive-Summary-Final-Report.pdf>.

<sup>71</sup> *Id.*

<sup>72</sup> *Id.*

<sup>73</sup> *Id.*

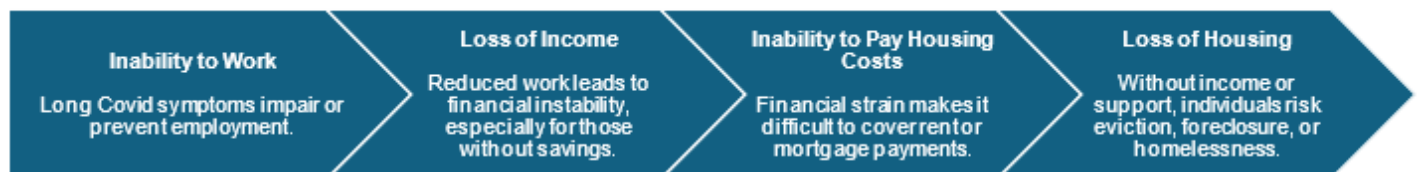
<sup>74</sup> Gina Lazara, *Nearly Half of Homeless Youth in Clark County Are Part of LGBTQ Community*, KTNV (May 1, 2020), <https://www.ktnv.com/news/nearly-half-of-homeless-youth-in-clark-county-are-part-of-lgbtq-community>.

populations most susceptible to Long COVID and least likely to have access to sustained treatment or preventive resources.

The pandemic introduced severe disruptions for people experiencing homelessness—but for those who developed Long COVID, the consequences have often been catastrophic. The condition can destabilize even those with steady employment and housing, setting off a chain reaction of job loss, medical debt, and housing insecurity.<sup>75</sup> For individuals already unhoused at the time of infection, recovery is even more elusive.<sup>76</sup> Managing chronic symptoms without stable housing, consistent healthcare, or access to social services poses nearly insurmountable challenges.<sup>77</sup> These compounding pressures—illness, poverty, and systemic neglect—have turned Long COVID into both a cause and a consequence of homelessness. The following subsections examine how Long COVID contributes to housing instability and why congregate shelters remain particularly unsafe for those living with the condition.

### 2.3.1 From Illness to Homeless

Long COVID can trigger a chain reaction that leads to housing instability and, ultimately, homelessness. This progression typically follows a predictable path:



COVID-19 initially caused widespread economic disruption, disproportionately affecting low-income and gig workers.<sup>78</sup> Those who develop Long COVID often suffer debilitating health impairments that make stable employment impossible.<sup>79</sup> Even individuals who were previously

<sup>75</sup> Elizabeth Yuko, *First They Got Long COVID. Then, It Made Them Homeless*, ROLLING STONE (Feb. 25, 2022), <https://www.rollingstone.com/culture/culture-features/long-covid-homeless-chronic-illness-gig-economy-1312460/>.

<sup>76</sup> Ashley A. Meehan et al., *COVID-19 Vaccine Acceptability Among Clients and Staff of Homeless Shelters in Detroit, Michigan, February 2021*, 23 HEALTH PROMOT. PRACT. 35, 35 (2021).

<sup>77</sup> *Id.*

<sup>78</sup> Jaison R. Abel & Richard Deitz, *Some Workers Have Been Hit Much Harder than Others by the Pandemic*, LIBERTY ST. ECON. (Feb. 9, 2021), <https://libertystreeteconomics.newyorkfed.org/2021/02/some-workers-have-been-hit-much-harder-than-others-by-the-pandemic/>.

<sup>79</sup> *Id.*; Yuko, *supra* note 62.

financially secure have lost jobs due to prolonged illness, resulting in severe economic hardship.<sup>80</sup>

Recent data highlights the strong correlation between Long COVID and housing insecurity. A nationally representative survey (Sept. 2022–April 2023) found that 28 million U.S. adults reported Long COVID symptoms—and they were far more likely to experience financial distress, fall behind on housing payments, or face eviction or foreclosure.<sup>81</sup> Compared to COVID-19 survivors without long-term symptoms, those with Long COVID were 1.5x more likely to struggle with household expenses; 1.5x more likely to fall behind on rent or mortgage; and 1.9x more likely to face eviction or foreclosure.<sup>82</sup> The risk was especially high for those with severe functional impairments, such as cognitive, mobility, or self-care limitations.<sup>83</sup> These challenges are particularly devastating for individuals in physically demanding jobs or the gig economy, where flexibility is scarce and financial safety nets are minimal.<sup>84</sup> The impact is most severe for low-income individuals, with the highest rates of housing insecurity among those of lower socioeconomic status suffering from Long COVID.<sup>85</sup>

### 2.3.2 Long COVID and Congregate Housing

Crowded indoor environments—such as emergency shelters with tightly packed rows of cots—make it nearly impossible to socially distance, compounding the danger.<sup>86</sup> Traditional congregate shelter settings pose significant risks for homeless individuals with Long COVID. Many are immunocompromised or suffer from underlying conditions that heighten vulnerability to reinfection and other complications.<sup>87</sup> Homeless individuals already face elevated health risks from pre-existing comorbidities, limited access to healthcare, and socioeconomic instability.<sup>88</sup> For those with Long COVID, these risks are magnified. Even under the best circumstances,

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<sup>80</sup> See Abel & Deitz, *supra* note 64.

<sup>81</sup> Packard & Susser, *supra* note 61.

<sup>82</sup> *Id.*

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> Natalia M. Rodriguez et al., “COVID Knocked Me Straight Into the Dirt”: Perspectives from People Experiencing Homelessness on the Impacts of the COVID-19 Pandemic, 22 BMC PUB. HEALTH 1, 2 (2022).

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

shelters “can’t adequately meet the needs of people living with Long COVID.”<sup>89</sup> Exposure to poorly ventilated, crowded spaces remains hazardous, even as general community infection rates have declined.<sup>90</sup> For Long COVID sufferers, the risk of reinfection and additional illness persists—and traditional shelter settings often offer no viable alternative.<sup>91</sup>

Each new COVID-19 infection also compounds the risk of getting Long COVID, even for vaccinated individuals.<sup>92</sup> People infected twice are 1.7x more likely to develop Long COVID; those infected three times face a 2.6-fold increase in risk.<sup>93</sup> About 24% of reinfections lead to Long COVID and repeat infections often cause more severe or prolonged symptoms.<sup>94</sup> Reinfections also heighten the risk of long-term damage to vital organs—including the heart, lungs, and brain—and may worsen existing Long COVID symptoms. These findings underscore the critical importance of limiting repeat exposures to the virus.

### **3 Possible Measures to Reduce the Spread of Long COVID in Congregate Housing**

This section outlines both immediate and long-term interventions Clark County could implement to reduce the spread of COVID-19 and mitigate the burden of Long COVID within congregate housing. First, it proposes a short-term solution focused on improving air quality and access to high-quality masks. Then, it recommends establishing a dedicated Long COVID Task Force to collect county-specific data, educate providers, and coordinate a systemic response informed by successful models from other states.

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<sup>89</sup> Yuko, *supra* note 62.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*; Rodriguez et al., *supra* note 72.

<sup>92</sup> Patient-Led Research Collaborative, *Long COVID Awareness Day: 2025 Fact Sheet* (Mar. 2025), [https://patientresearchcovid19.com/storage/2025/03/Long-COVID-Awareness-Day\\_-2025-Fact-Sheet.pdf](https://patientresearchcovid19.com/storage/2025/03/Long-COVID-Awareness-Day_-2025-Fact-Sheet.pdf).

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*



### 3.1 Short-term Solution: Air Purifiers and Masks in Congregate Housing

Many studies have demonstrated that COVID-19 spreads primarily through respiratory droplets and aerosols.<sup>95</sup> In enclosed or poorly ventilated settings, such as shelters and communal housing, the risk of viral transmission increases dramatically.<sup>96</sup> Crowded quarters, shared spaces, and constant turnover within congregate facilities can create ideal conditions for rapid spread.<sup>97</sup> The CDC and many public health experts emphasize improving indoor air quality as a crucial factor in controlling airborne viruses.<sup>98</sup> To protect homeless individuals from facing compounded health and economic threats, congregate housing institutions could be provided with air purifiers and disposable, high-quality masks.

Since COVID-19 is transmitted through contact with respiratory fluids carrying the infectious SARS-CoV-2 virus, a person can be exposed if an infected individual coughs or speaks near them, or by inhaling aerosol particles that drift away from the infected person.<sup>99</sup> In fact, transmission can occur at distances greater than six feet, and particles can move throughout an entire room or indoor space.<sup>100</sup> They can even linger in the air long after a person has left the room, potentially remaining airborne for hours.<sup>101</sup> Individuals can be exposed via splashes and sprays of respiratory fluids directly onto their mucous membranes.<sup>102</sup> Although spread can sometimes occur via contact with contaminated surfaces, current data suggest this route is less

<sup>95</sup> Maria Godoy, *CDC Acknowledges Coronavirus Can Spread Via Airborne Transmission*, NPR (Oct. 5, 2020, 5:44 PM), <https://www.npr.org/sections/health-shots/2020/10/05/920446534/cdc-acknowledges-coronavirus-can-spread-via-airborne-transmission>.

<sup>96</sup> Aylin Woodward, *You're Most Likely to Catch the Coronavirus in a Poorly Ventilated Space. That Makes Offices Very Risky.*, BUSINESS INSIDER (May 6, 2020, 9:46 AM), [https://www.businessinsider.com/coronavirus-risk-higher-tight-indoor-spaces-with-little-air-flow-2020-5#:~:text=,132%20as%20it%20was; WORLD HEALTH ORG., Advice for the Public: Coronavirus Disease \(COVID-19\), https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public](https://www.businessinsider.com/coronavirus-risk-higher-tight-indoor-spaces-with-little-air-flow-2020-5#:~:text=,132%20as%20it%20was; WORLD HEALTH ORG., Advice for the Public: Coronavirus Disease (COVID-19), https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public) (last visited Apr. 28, 2025).

<sup>97</sup> U.S. Environmental Protection Agency, *Indoor Air and Coronavirus (COVID-19)*, EPA (Mar. 31, 2025), <https://www.epa.gov/indoor-air-quality-iaq/indoor-air-and-coronavirus-covid-19>.

<sup>98</sup> NAT'L CTR. FOR HEALTH STAT., CTRS. FOR DISEASE CONTROL & PREVENTION, *Long COVID Basics*, <https://www.cdc.gov/covid/long-term-effects/index.html> (last visited Apr. 28, 2025).

<sup>99</sup> U.S. ENVTL. PROT. AGENCY, *Indoor Air and Coronavirus (COVID-19)*, <https://www.epa.gov/indoor-air-quality-iaq/indoor-air-and-coronavirus-covid-19#:~:text=Transmission%20of%20COVID%2D19%20from,for%20hours%20in%20some%20cases> (last visited Apr. 28, 2025).

<sup>100</sup> *Id.*

<sup>101</sup> *Id.*

<sup>102</sup> *Id.*

likely.<sup>103</sup> In congregate settings, where ventilation may be inadequate and physical distancing difficult to maintain, the risk of airborne transmission is substantially elevated, making interventions targeting air quality essential.<sup>104</sup>

Testing limitations present a significant challenge for controlling COVID-19 spread in congregate settings too. Current research demonstrates that false negative test results are common, meaning tests often show negative results even when the person is infected with the COVID-19 virus.<sup>105</sup> The Food and Drug Administration (FDA) specifically notes that “COVID-19 antigen tests are less accurate than molecular tests and may not detect the SARS-CoV-2 virus early in an infection or in people who do not have COVID-19 symptoms.”<sup>106</sup>

This limitation is particularly problematic in congregate settings where:

1. Regular testing may create a false sense of security.<sup>107</sup>
2. Asymptomatic or pre-symptomatic individuals may test negative while still being infectious.<sup>108</sup>
3. Limited resources may prevent the recommended repeat testing protocols.<sup>109</sup>

The FDA recommends multiple tests over time to reduce false negatives, but this approach requires resources often unavailable in homeless service settings.<sup>110</sup>

Better ventilation and air cleaning alone cannot eliminate the airborne spread of SARS-CoV-2.<sup>111</sup> Still, the EPA recommends boosting airflow from outdoors and improving filtration as part of a broader plan—one that also includes physical distancing, wearing masks, disinfecting surfaces, washing hands, and taking other common-sense precautions.<sup>112</sup>

<sup>103</sup> *Id.*

<sup>104</sup> *Id.*

<sup>105</sup> OREGON HEALTH AUTHORITY, *The Science Behind False Negative COVID-19 Tests*, OREGON HEALTH NEWS BLOG (Jul. 26, 2022), <https://covidblog.oregon.gov/the-science-behind-false-negative-covid-19-tests/>.

<sup>106</sup> U.S. FOOD & DRUG ADMIN., *At-Home COVID-19 Diagnostic Tests: Frequently Asked Questions*, <https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/home-covid-19-diagnostic-tests-frequently-asked-questions> (last visited Apr. 29, 2025).

<sup>107</sup> *Id.*; *Testing Nursing Home Residents for COVID-19*, CENTER FOR MEDICARE ADVOCACY (Sept. 10, 2020), <https://medicareadvocacy.org/testing-nursing-home-residents-for-covid-19/#:~:text=%28BD%29,%E2%80%9D>.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *Id.*

<sup>111</sup> See Yuguo Li et al., *The COVID-19 Pandemic is a Global Indoor Air Crisis That Should Lead to Change: A Message Commemorating 30 Years of Indoor Air*, 31 INDOOR AIR 1683, 1684 (2021).

<sup>112</sup> *Id.*

High-efficiency particulate air (HEPA) filters have demonstrated remarkable effectiveness in removing SARS-CoV-2 from indoor air. Quantitative studies show air cleaners equipped with HEPA filters can continuously remove SARS-CoV-2 from the air, with capture ratios of 85.38%, 96.03%, and >99.97% at 1, 2, and 7.1 ventilation volumes, respectively.<sup>113</sup> Air purification systems combining UV-C light with HEPA filtration have successfully removed viable viruses from the air in controlled environments.<sup>114</sup> A study conducted in King County, Washington in 2023 also evaluated the real-world effectiveness of portable air cleaners (PACs) equipped with HEPA filters in reducing indoor particle levels within homeless shelters during the COVID-19 pandemic.<sup>115</sup> Researchers monitored four rooms across three homeless shelters, measuring particle concentrations indoors and outdoors while tracking the energy consumption (and thus, usage) of the deployed PACs.<sup>116</sup> They found that the air inside the shelter was actually cleaner than that found outside.<sup>117</sup> The findings suggested that air purifiers are an effective short-term strategy to reduce indoor particulate levels in community congregate living settings.<sup>118</sup>

A strategic deployment of HEPA air purifiers in congregate housing would not only mitigate the spread of COVID-19 but all other airborne diseases to an already immunocompromised population.<sup>119</sup> With no approved treatments yet for Long COVID, the only real defense is to keep infections at bay from the start.<sup>120</sup> To cover a broad range of building sizes, the County should calculate room volume and Clean Air Delivery Rate (CADR) when

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<sup>113</sup> Hiroshi Ueki et al., *Effectiveness of HEPA Filters at Removing Infectious SARS-CoV-2 from the Air*, 7 MSPHERE 1, 1 (2022).

<sup>114</sup> Roy E. Barnewall & Werner E. Bischoff, *Removal of SARS-CoV-2 Bioaerosols Using Ultraviolet Air Filtration*, 42 INFECT. CONTROL HOSP. EPIDEMIOL. 1014, 1014 (2021).

<sup>115</sup> Ching-Hsuan Huang et al., *Assessing the Effectiveness of Portable HEPA Air Cleaners for Reducing Particulate Matter Exposure in King County, Washington Homeless Shelters During the COVID-19 Pandemic: Implications for Community Congregate Settings*, 891 SCI. TOTAL ENV'T 1,1 (2023).

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

<sup>119</sup> U.S. DEP'T OF HEALTH & HUM. SERVS., OFF. OF THE ASSISTANT SEC'Y FOR PLAN. & EVALUATION, *Individuals Experiencing Homelessness are Likely to Have Medical Conditions Associated with Severe Illness from COVID-19* (June 24, 2020), <https://aspe.hhs.gov/reports/individuals-experiencing-homelessness-are-likely-have-medical-conditions-associated-severe-illness-0>.

<sup>120</sup> Will Stone, *5 Years Since the Pandemic Started, Long COVID Patients are Still Hoping for a Cure*, NPR (Mar. 12, 2025, 5:16 AM), <https://www.npr.org/sections/shots-health-news/2025/03/12/nx-s1-5324690/long-covid-pandemic-treatments-research>.

deciding how many units to install.<sup>121</sup> Placing these purifiers in common areas, sleeping quarters, and dining facilities will help reduce exposure in the most frequently used spaces.<sup>122</sup> To keep performance levels high, each purifier should follow a regular maintenance schedule that includes timely filter replacements and routine inspections.<sup>123</sup>

Beyond safeguarding residents' health, this approach makes financial sense when measured against the economic fallout of Long COVID, which can erode household stability and drive-up healthcare costs.<sup>124</sup> The investment in HEPA air purifiers is modest in comparison to the potential savings on emergency room visits and other medical expenses.<sup>125</sup> To reinforce the benefits of this air purification strategy, the County could consider a complementary mask program.<sup>126</sup> During periods of high community transmission, staff and residents should have ready access to KN95 or N95 masks.<sup>127</sup> Individuals at heightened risk of severe illness would benefit the most, but masks are especially useful in crowded settings where social distancing is not practical.<sup>128</sup>

### 3.2 Long-term Solution: Long COVID Task Force

In Clark County and across Nevada, the burden of Long COVID remains insufficiently quantified because of three primary problems:

#### 1. Lack of Adequate Medical Data and Physician Knowledge. Many individuals with Long COVID experience normal results on routine tests, making diagnosis

<sup>121</sup> CALI. DEP'T OF PUB. HEALTH, *Interim Guidance for Ventilation, Filtration, and Air Quality in Indoor Environments* (Jan. 15, 2025), <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Interim-Guidance-for-Ventilation-Filtration-and-Air-Quality-in-Indoor-Environments.aspx>.

<sup>122</sup> Huang et al., *supra* note 98.

<sup>123</sup> *Id.*

<sup>124</sup> Marcus Plescia, *From the Chief Medical Officer: Leadership Considerations for Long COVID*, ASTHO (Feb. 28, 2023), <https://www.astho.org/communications/blog/cmo-leadership-considerations-for-long-covid/#:~:text=On%20a%20positive%20note%2C%20recent,The%20public.>

<sup>125</sup> Zafar Zafari, et al., *The Cost-Effectiveness of Standalone HEPA Filtration Units for the Prevention of Airborne SARS CoV-2 Transmission*, 20 COST. EFF. RES. ALLOC. 1, 1 (2022).

<sup>126</sup> Margaret A. Honein et al., *Summary of Guidance for Public Health Strategies to Address High Levels of Community Transmission of SARS-CoV-2 and Related Deaths, December 2020*, 69 MORBIDITY & MORALITY WKLY REP. 1860, 1860 (2020).

<sup>127</sup> *Id.*

<sup>128</sup> Shama Cash-Goldwasser et al., *Masks During Pandemics Caused by Respiratory Pathogens— Evidence and Implications for Action*, 6 JAMA NETW. OPEN 1, 6 (2023); *see also* Laura López González, *COVID-19 Masks: Expert Tips for What You Should (and Shouldn't) Do*, UNIVERSITY OF CALIFORNIA SAN FRANCISCO (Aug. 13, 2024), <https://www.ucsf.edu/news/2024/08/425456/covid-19-masks-expert-tips-what-you-should-and-shouldnt-do>.

difficult without specialized knowledge.<sup>129</sup> Providers often lack training on post viral syndromes, leading to underdiagnosis and inconsistent treatment.<sup>130</sup>

2. **Lack of Public Knowledge and Information.** The public—and sometimes employers—may not fully understand Long COVID’s disabling effects.<sup>131</sup> This lack of understanding can result in stigma, inadequate workplace accommodations, or delayed medical intervention.<sup>132</sup>
3. **Insufficient State/County-Specific Data.** Beyond scattered national and global studies, there is little granular data on the prevalence and severity of Long COVID in Nevada.<sup>133</sup> This hampers planning for healthcare needs and social services.

A number of states have begun addressing these problems in novel ways:

- Alabama (SB 87, 2023): Appropriated funding for a formal study of Long COVID’s impacts.
- Minnesota (SF 2995, 2023): Established a program for community assessments and epidemiologic investigations on Long COVID. The program also provides resources for patients and trains health professionals to detect risks and adopt evidence-based practices.
- New York (SB S898, 2023): Directed the Department of Labor to study the impact of Long COVID on the labor market, with recommendations for legislative and executive action. This provision highlights the socio-economic implications of Long COVID, particularly workforce attrition.
- Massachusetts (HB 2147, 2023): Proposed creating a commission to assess medical, mental health, social, and financial needs related to Long COVID. Although still pending, this bill illuminates the importance of a multi-sector approach.
- Colorado (2022): Appointed a Senior Policy Advisor on Long COVID in the Office of Saving People Money on Healthcare. The advisor coordinates data collection and stakeholder engagement to shape the state’s response.

<sup>129</sup> Hannah E. Davis et al., *Long COVID: Major Findings, Mechanisms and Recommendations*, 21 NAT. REV. MICROBIOL. 133, 141 (2023).

<sup>130</sup> *Id.*

<sup>131</sup> NAT’L CTR. FOR HEALTH STAT., CTRS. FOR DISEASE CONTROL & PREVENTION, *Living with Long COVID*, <https://www.cdc.gov/covid/long-term-effects/living-with-long-covid.html#:~:text=,tests%20to%20determine%20appropriate%20treatment> (last visited Apr. 28, 2025).

<sup>132</sup> *Id.*; Elisabeth A. Stelson et al., *Return-to-Work with Long COVID: An Episodic Disability and Total Worker Health Analysis*, 338 SOC. SCI. & MED. 1, 1 (2023).

<sup>133</sup> UMC’s Long COVID Care Clinic website has been unsupported for several months. See <https://apps.umcsn.com/Errors/Error-404-Page-Not-Found.aspx?aspxerrorpath=/COVID19/RecoveryClinic.aspx>.

Clark County can build on successful state and national models by creating a dedicated task force—or advisory committee—focused on Long COVID.<sup>134</sup> This task force could include local health department officials, state health authorities, epidemiologists, patient representatives, and community-based organizations.<sup>135</sup> Its mandate could center on gathering county-specific data about the prevalence of Long COVID, conducting surveys to pinpoint the most urgent local needs, and recommending evidence-based strategies for healthcare providers. In coordinating with local universities and research institutes, the task force could develop or adapt specialized training modules for clinicians to stay informed about new diagnostic and treatment protocols. By partnering with labor and commerce departments, much like New York’s SB S898, the task force could also evaluate how Long COVID affects Clark County’s workforce and propose measures to mitigate those economic strains. Central to its work would be a systematic approach to data collection and reporting.<sup>136</sup> A countywide registry could record both diagnosed and suspected cases, exploring demographic trends, resource allocation, and areas of particularly high need. At the same time, a simple and accessible mechanism, such as an online portal, could allow residents to self-report lingering post-COVID (see, for example, the federal CURE ID survey platform for Long COVID patients<sup>137</sup>). This approach could provide a real-time snapshot of Long COVID’s scope and guide the task force in setting priorities.

In addition to collecting data, the task force could spearhead provider education and develop clinical guidelines.<sup>138</sup> By collaborating with the Nevada State Medical Board and local medical associations, it could create Continuing Medical Education programs on Long COVID, following Minnesota’s example in addressing emerging conditions.<sup>139</sup> These courses could help

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<sup>134</sup> See COUNCIL OF STATE & TERRITORIAL EPIDEMIOLOGISTS, *State, Tribal, Local, and Territorial Public Health Agency Approaches to Long COVID-19/Post COVID-19 Condition Surveillance: Lessons Learned, Gaps, and Needs* (Aug. 22, 2023), <https://preparedness.cste.org/wp-content/uploads/2023/09/CSTE-STLT-Long-COVID-Surveillance-August-2023.pdf>.

<sup>135</sup> See *id.*

<sup>136</sup> See THE ROCKEFELLER FOUND., *Getting to and Sustaining the Next Normal: A Roadmap for Living with COVID* 88 (Mar. 2022), <https://www.rockefellerfoundation.org/wp-content/uploads/2022/03/Getting-to-and-Sustaining-the-Next-Normal-A-Roadmap-for-Living-with-Covid-Report-Final.pdf>.

<sup>137</sup> Betsy Ladyzhets, *Long Covid Surveys from a FDA/NIH Initiative Ask Which Drugs Help Alleviate Symptoms*, THE SICK TIMES (Feb. 20, 2024), <https://thesicktimes.org/2024/02/20/long-covid-surveys-from-an-fda-nih-initiative-ask-which-drugs-help-alleviate-symptoms/#:~:text=Last%20month%2C%20a%20U,inform%20priorities%20for%20clinical%20trials>.

<sup>138</sup> COUNCIL OF STATE & TERRITORIAL EPIDEMIOLOGISTS, *supra* note 117.

<sup>139</sup> See S.F. 2995, 93d Leg., Reg. Sess. (Minn. 2023) (enacted).



clinicians identify symptoms that may signal issues like dysautonomia, viral reactivations, or microclots and coordinate appropriate testing.<sup>140</sup> By standardizing best practices for diagnosis and treatment, the task force could strengthen patient care across the County.<sup>141</sup>

Based on current federal and state approaches to Long COVID funding, there are several promising avenues to secure financial support for the proposed task force. The Agency for Healthcare Research and Quality (AHRQ) represents one of the most direct paths to substantial funding for Long COVID initiatives.<sup>142</sup> As of March 2025, AHRQ has awarded multiple grants of \$1 million each for up to 5 years to support existing multidisciplinary Long COVID clinics across the country, with three additional grants awarded in July 2024.<sup>143</sup> The proposed Long COVID Moonshot Act also demonstrates there is still interest in comprehensive Long COVID research and care. This draft legislation, championed by Senator Bernie Sanders, would authorize \$1 billion in mandatory federal funding per year for 10 years to address the Long COVID crisis.<sup>144</sup> While this legislation is still pending, it suggests potential for significant federal funding.

## Conclusion

Clark County now stands at a pivotal moment for addressing the significant challenges posed by Long COVID. Vulnerable populations—including those already grappling with homelessness—face compounding risks to both their physical well-being and economic security. In the short term, air purifiers and high-quality masks can mitigate transmission in congregate settings, sparing residents from repeated infections and cutting down on associated healthcare costs. In the longer term, a county-level task force could deliver the structured framework needed to track Long COVID data, coordinate training for medical professionals, and advise on workforce policies that protect employees and employers alike. By leveraging potential funding

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<sup>140</sup> See Julie Darbyshire et al., *Improving Quality in Adult Long Covid Services: Findings from the LOCOMOTION Quality Improvement Collaborative*, 24 CLIN. MED. 1, 4–5 (2024).

<sup>141</sup> See *id.*

<sup>142</sup> Lisa Schnirring, *HHS Awards \$45 Million to Support Long-COVID Clinics*, CIDRAP (Sept. 20, 2023), <https://www.cidrap.umn.edu/covid-19/hhs-awards-45-million-support-long-covid-clinics#:~:text=The%20US%20Department%20of%20Health,in%20underserved%20groups%20and%20areas.>

<sup>143</sup> *Long COVID Care Network*, AGENCY FOR HEALTHCARE RESEARCH AND QUALITY, <https://www.ahrq.gov/coronavirus/long-covid/care-network.html> (last visited Apr. 29, 2025).

<sup>144</sup> OFFICE OF SEN. BERNIE SANDERS, *Fact Sheet: The Long COVID Moonshot Act* (Apr. 9, 2024), [https://www.sanders.senate.gov/wp-content/uploads/4.9.2024-Factsheet\\_The-Long-COVID-Moonshot-Act.pdf](https://www.sanders.senate.gov/wp-content/uploads/4.9.2024-Factsheet_The-Long-COVID-Moonshot-Act.pdf).

from agencies such as the AHRQ and NIH—and by drawing on models pioneered in states like Minnesota, Colorado, and New York—Clark County could embark on a well-informed, forward-thinking campaign to contain the fallout of Long COVID. This dual focus on immediate interventions and sustained institutional leadership could put Clark County in a unique position not just to mitigate a mounting crisis, but to serve as a national leader in Long COVID response.

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