Capacity and Financing for Public Health Emergencies in Nevada

The scale of the novel coronavirus, and its associated disease, COVID-19, is yet unknown in Nevada as cases continue to arise. At the time of this writing, 55 people in Nevada have tested positive for COVID-19: forty-two in Clark County, and the other thirteen elsewhere in the State. School and office closures, cancellations of major events, and temporary disruptions to the supply chain have heightened the sense of anxiety around the Silver State.

The unease has been compounded by the State's limited health care capacity, about which we have written before. At a press conference on March 15, 2020, Governor Steve Sisolak stated that there is a testing kit shortage for COVID-19, with 200 tests already having been conducted and supplies for only about 1,000 more. The Governor’s Office is coordinating with the office of Vice President Mike Pence regarding the supply and indicated that the federal delegation “is working to obtain more kits.”

In this policy brief, we present a snapshot of the current health care system capacity and then more closely examine budgetary resources available to Nevada for public health emergencies.

Health Care System Capacity

The American College of Emergency Physicians, which produces a report card on the emergency care environment, graded Nevada with a “D+” overall. Nevada is one of the top states in the nation for disaster preparedness (fifth overall) and ranks first in the proportion of nurses who received disaster preparedness training. However, access to emergency care, which is marked by a specialist workforce shortage, financial barriers to care, and inadequate infrastructure – for example, 8.7 emergency departments per 1 million people, compared with an average of 18.9 per 1 million people nationally – means that Nevada received an "F" grade on this indicator, for a ranking of 51st in the nation.

Trust for America’s Health, a non-profit, nonpartisan organization that reports on evidence-based programs for prevention and health equity, produces a report that indexes states' readiness for public health emergencies, using 10 key indicators (e.g., participation in Nurse Licensure Compact, Hospital Preparedness Program, Emergency Management Accreditation Program, public health funding, etc.). As the map constructed by the Guinn Center in Figure 1 shows, Nevada ranks in the bottom tier.
While Nevada fares well on some indicators, such as having increased its public health funding over the previous year (which will be discussed subsequently), it does not perform as well on others. The Silver State is one of nine states that is not accredited by either the Public Health Accreditation Board (PHAB) or the Emergency Management Accreditation Program (EMAP). As the report notes, “[b]oth programs help ensure that necessary emergency prevention and response systems are in place and staffed by qualified personnel.” (The other eight states are: Alaska, Hawaii, Indiana, New Hampshire, South Dakota, Texas, West Virginia, and Wyoming.) Nevada previously had been accredited by EMAP, which helps states ensure that they meet national standards for emergency response capabilities.

Capacity is a concern for the Silver State. Nevada ties for 34th in the nation in the number of hospital beds per 1,000 population. At 2.1 beds per 1,000 population, it is below the national average of 2.4 and closer to the bottom state, Oregon, with 1.6 beds, than the top state, South Dakota, which has 4.8 beds per 1,000 population.

Another indicator of resource capacity is number of acute care hospital beds. Acute care may be defined as: “...a level of health care in which a patient is treated for a brief but severe episode of illness, for conditions that are the result of disease or trauma, and during recovery from surgery.”
Acute care hospital beds are inpatient hospital beds dedicated to serving patients with acute needs. The most recent data shows that Nevada has about 1.6 acute care hospital beds per 1,000 residents, for a ranking of 47th in the nation and below the national average of around 2.1 acute care hospital beds per 1,000 residents. (Mississippi is ranked highest, with roughly 3.5 acute care hospital beds per 1,000 residents, and Hawaii is ranked lowest, with approximately 1.3 acute care hospital beds per 1,000 residents.)

However, while 67.3 percent of Nevada’s population lives in a federally designated health professional shortage area (HPSA), the health care workforce supply has been increasing. With the exception of registered nurses, the State has experienced occupational growth in medical professionals on the front lines of the current crisis, as the most recent Health Workforce in Nevada chartbook shows:

- Licensed physicians (MDs and DOs) increased from 5,776 in 2016 to 6,206 in 2018 (7.4 percent). There were 195.6 licensed physicians per 100,000 population in 2016, and 206.0 in 2018.
- Licensed primary care physicians (MDs and DOs) increased from 2,034 in 2016 to 2,591 in 2018 (27.4 percent). There were 68.9 licensed primary care physicians per 100,000 population in 2016, and 84.3 in 2018.
- Licensed registered nurses (RNs) decreased from 23,222 in 2016 to 21,824 in 2018 (6.0 percent). There were 786.3 RNs per 100,000 population in 2016, and 724.4 in 2018.
- Licensed advanced practice registered nurses (APRNs) increased from 1,180 in 2016 to 1,279 in 2018 (8.4 percent). There were 40.0 APRNs per 100,000 population in 2016 and 42.5 in 2018.
- Licensed physician assistants (PAs) increased from 928 in 2016 to 977 in 2018 (5.3 percent). There were 31.4 PAs per 100,000 population in 2016 and 32.4 in 2018.

While the workforce has expanded in recent years, the health professional shortage remains a challenge for Nevada. The State and private employers have implemented measures to “flatten the curve,” or keep cases at a manageable level for medical providers. This includes unprecedented closures of casino properties on the Las Vegas Strip. But these policies and practices are necessary for the well-being of medical providers and residents alike.

**Public Health Emergencies: Budgetary Resources**

Nevada’s Department of Health and Human Services (DHHS), Division of Public and Behavioral Health (DPBH), administers the Public Health Preparedness Program. Its responsibilities include “preparation for and management/mitigation of public health emergencies caused by natural disasters or terrorism; primary care health planning, and provider recruitment and retention; and emergency medical systems response.” State expenditures for the program have decreased over time, as shown in Figure 2.
In State fiscal year (FY) 2010, about $12.6 million was allocated to the program. Funding increased through FY 2012, dropped slightly in FY 2013, and then decreased sharply in FY 2014, for a 24.4 percent year-over-year decrease. Expenditures continued to decline through FY 2017, and while they increased in FY 2018, each subsequent year evinces a steady decrease, including the legislatively appropriated amounts for FY 2020 and FY 2021. In real dollars, or inflation-adjusted terms, spending declined by 26.8 percent between FY 2010 and FY 2021.

A significant portion of State spending on public health preparedness is comprised of the Public Health Emergency Preparedness (PHEP) cooperative agreement as shown in Figure 3. A cooperative agreement is similar to a federal grant in that it provides financial assistance from a federal awarding agency to a pass-through or non-federal entity (e.g., a state) but differs in that there is “substantial involvement” by the agency. PHEP assists public health departments in building and strengthening “their abilities to effectively respond to a range of public health threats, including infectious diseases, natural disasters, and biological, chemical, nuclear, and radiological events. Preparedness activities funded by the PHEP cooperative agreement specifically targeted the development of emergency-ready public health departments that are flexible and adaptable.”
Figure 3. Budget for Public Health Emergency Preparedness vs. All Other Public Health Preparedness in Nevada, by State Fiscal Year

Source: State of Nevada, Transparent Government Website

Total spending amounts are the same as those in the purple line displayed in Figure 2. The light purple in the stacked columns in Figure 3 shows the share of expenditures dedicated to PHEP. The program makes up about 40 to 60 percent of public health preparedness program spending in any given fiscal year. The spending peaks in FY 2012 and FY 2013, as discussed with respect to Figure 2, and in which PHEP comprised the lowest shares, can be attributed to the State Health Access Program (SHAP), a federal grant to help target populations with uninsurance. Appropriated amounts for that program were about $3.2 million in each FY 2012 and FY 2013. Just over $100,000 was allocated for SHAP in FY 2014, with zero dollars thereafter, which may explain the drop-off in total expenditures for public health preparedness.

As states cope with the crisis, the key problem they face is dependence on the federal government to provide relief. It is, by design, a reactive – rather than proactive – approach that emerged in the wake of the events of September 11, 2001. Although emergency preparedness and planning activities historically were delegated to local and state governments, the federal government consolidated operations as the locus of response for more centralized coordination. For example, Governor Sisolak declared a state of emergency in Nevada on March 12, 2020, as a response to the novel coronavirus. This activated a State Emergency Operation Center, loosened certain
governmental regulations, and required screening for visitors for long-term nursing homes, amongst others. But it was President Trump’s declaration of a national emergency that freed up $50 billion in federal aid to states and other jurisdictions. In addition, the president authorized an $8.3 billion supplemental package for coronavirus issues, under which state and local health agencies will receive $950 million.

Nevada’s reliance on the federal government to support public health preparedness is in evidence in Figure 4. For FY 2019, roughly 98.2 percent of the nearly $11.4 million appropriated for the DPBH program is federally funded. The remaining 1.8 percent is from State revenue sources. The largest share of federal money is for the aforementioned PHEP program, followed by Hospital and Health Care Preparedness (HPP) at around $1.6 million and Bio Watch at approximately $1.2 million. Smaller federal dollar amounts include those for HPP Ebola Preparedness and Response Activities and the Federal Primary Care Office, as well as some miscellaneous monies.

Figure 4. Public Health Preparedness Program, by Revenue Source, FY 2019

Like PHEP, the Hospital Preparedness Program (HPP) provides federal money to states through a cooperative agreement. It is intended to “improve the capacity of the health care system to plan for and respond to large-scale emergencies and disasters.” It comprises roughly 14.3 percent of Nevada’s Public Health Preparedness Program. Determination of funding for both PHEP and HPP is through a
prescribed formula or base amount, supplemented by a population-based formula, with additional funding possible on the basis of significant unmet needs or high degree of risk.

While Nevada does not receive a high total dollar amount for either program, compared to other states, when adjusted by population, it ranks in the top tier. Table 1 shows that PHEP funding per 1,000 population is $2,483, for a ranking of 17. In contrast, California, which received a total of nearly $41.9 million in PHEP funds – the most of any state – ranks 50th in its per 1,000 population amount of $1,070. Similarly, Nevada is tied for 11th with Utah in HPP funding of $817 per 1,000 population. Again, California received the most total funding but has a ranking of 46 with $573 HPP dollars per 1,000 population.

Table 1. PHEP and HPP Funding, Per 1,000 Population, Selected States (Ranked)

<table>
<thead>
<tr>
<th>State</th>
<th>PHEP Funding</th>
<th>Rank</th>
<th>HPP Funding</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
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<tr>
<td>New York</td>
<td>$945</td>
<td>51</td>
<td>$468</td>
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*Source:* Public Health Emergency Preparedness (PHEP): Centers for Disease Control and Prevention (CDC), [PHEP Budget Period 1 (Fiscal Year 2019) Funding](https://www.cdc.gov/phpp/aebu/phep.html). Hospital Preparedness Program (HPP): U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response, [HPP Budget Period 1 Supplement (Fiscal Year 2018) Funding](https://www.hhs.gov/). *Note:* Population adjustments and rankings by the Guinn Center. Ranked from highest to lowest per 1,000 population. Selected states include Nevada’s Intermountain West neighbors, along with the highest and lowest per 1,000 funding amounts for each metric.

While it is not yet clear whether the funding for PHEP and APP will be sufficient to meet the potential magnitude of the novel coronavirus pandemic, from federal fiscal year (FFY) 2003 through FFY 2019, PHEP funding has been cut by [one-third](https://www.cdc.gov/phpp/aebu/phep.html). That Nevada has been the beneficiary of a near-constant level of PHEP dollars between FY 2020 and FY 2021 is laudable. However, it has been suggested that failure to invest the necessary resources in state and local health departments – including budget and staffing cuts that have not recovered from the Great Recession – have left state health agencies ill-equipped for a public health emergency response.

Figure 5 poses a hypothetical: if Medicaid were not included in the DHHS’s budget, how have the funding levels for the State’s public health agency changed over time? There are several reasons for
Medicaid exclusion: (1) it is funded primarily with federal money; (2) expansion under the Patient Protection and Affordable Care Act (ACA) of 2010 extended benefits to a newly eligible population under a higher Federal Medical Assistance Percentage (FMAP); and (3) collectively, this implies that the period between FY 2010 and the first half of FY 2014 versus that between the second half of FY 2014 through FY 2021 are not comparable.

Figure 5. Nevada Department of Health and Human Services (DHHS) Funding: With and Without Medicaid, by State Fiscal Year

The dark purple columns show DHHS’s actual legislatively appropriated amounts, while the lighter columns indicate the hypothetical scenario where Medicaid is excluded. As suggested above in the reasons for theoretical exclusion, Medicaid produces a distortion in the perception of spending on public health in the State. Between FY 2010 and FY 2021, spending for DHHS increased by roughly $3.6 billion, from about $2.8 billion to approximately $6.4 billion, or 128.8 percent. In the absence of Medicaid spending, that increase would have amounted to around $641.8 million – from around $1.4 billion to just over $2.0 billion – which is a 46.0 percent increase. While the amount is not insubstantial, as the graph indicates, it is relatively flat in the context of a fairly large budget. As the second-fastest growing state in the nation after Idaho, it raises the question as to whether Nevada is investing sufficient resources to ensure a healthy citizenry.

Source: State of Nevada, Transparent Government Website
Although the State is not yet ready to access its Rainy Day Fund, which is a budgetary reserve account that can be accessed if tax revenues fall below projections or state leaders call a "fiscal emergency," it currently contains $401 million. In the long-term, however, Nevada’s elected officials may want to consider establishing a standing public health emergency fund. There is such a fund at the national level, though it has a zero balance. A well-funded reserve account for public health emergencies could be instrumental in maintaining budgetary stability, but, perhaps more importantly, in ensuring that there is a trigger to free up State money for the most rapid response possible. At the same time, lawmakers could consider the investment of additional resources for public health that would target preemption, supply adequacy, infrastructural capacity, and workforce expansion.