A Partnership Among Geisinger Commonwealth School of Medicine, Johnson College, Keystone College, Lackawanna College, Luzerne County Community College, Marywood University, Misericordia University, Penn State Scranton, Penn State Wilkes-Barre, The Wright Center for Graduate Medical Education, University of Scranton & Wilkes University

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Institute Insights:

Analysis of COVID-19 Impact on the Healthcare System

July 2020

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Introduction

This research was underwritten by **the Greater Scranton Chamber of Commerce, the Sordoni Family Foundation, and UGI Utilities** along with support from **the Luzerne County COVID-19 Emergency Response Fund of The Luzerne Foundation, the Scranton Area Foundation's NEPA COVID-19 Fund and the Wells Fargo Foundation.**

This report was developed to examine the regional healthcare system's readiness to respond to the COVID-19 pandemic and the broader long-term implications of the pandemic on the healthcare system. This qualitative analysis includes literature reviews, input from regional hospital, community health center and nursing home leaders, and an analysis of relevant data sources on the adequacy of facilities, equipment, supplies and resources within the healthcare system to respond to the pandemic.

According to the findings from this analysis, inadequate stockpiles of personal protective equipment, shortages of testing supplies, and a lack of coordination in allocating available resources hampered the healthcare system's ability to respond to the COVID-19 outbreak initially. Shortages in stockpiles of supplies and limitations in public health resources have been intensified by a declining trend in public health funding. State and local health departments that have been coping with reduced funding and declining workforces are now responsible for implementing testing plans and deploying contact tracing programs to track the spread of the virus.

The healthcare system faces significant clinical and financial challenges in responding to the pandemic. This report provides an analysis of local hospital capacity, and examines how providers have modified their care delivery efforts due to limitations on providing in-person care. The COVID-19 pandemic drove community health centers to modify their operations to meet an increased need for coronavirus testing while expanding telehealth services to continue providing patient care, typically to vulnerable populations. Nursing homes, which have been severely impacted by the virus, struggled to protect their vulnerable residents from outbreaks of the virus while dealing with shortages of protective gear and testing delays. In addition to examining the care delivery challenges, the report also highlights the financial challenges facing different aspects of the healthcare system as a result of the pandemic, and outlines funding efforts that have been adopted to mitigate these challenges.

This report also highlights challenges with the health information technology infrastructure in exchanging and reporting data related to the virus, and concerns with communications and guidance relayed from federal and state authorities and health agencies. These limitations have made it difficult to obtain accurate and timely data on COVID-19 cases and testing results, and hampered the ability to develop a coordinated response.

The impact on the health insurance market is also explored as the surge in unemployment is likely to cause displaced workers to lose employer-based health coverage. While some will transition to other public or private coverage options, others will end up uninsured, which may put additional strain on hospitals, community health centers, and others who provide uncompensated care for uninsured individuals.

The COVID-19 pandemic has significantly impacted many aspects of the health system, and highlighted shortcomings in the nation's ability to prepare for and respond to public health emergencies. The report concludes by outlining recommendations for potential strategies to address these gaps and prioritize the public health infrastructure.

Spread of COVID-19

In mid-March, nationwide guidelines were issued to slow the spread of COVID-19 through the implementation of social distancing measures, as individuals were directed to remain at home whenever possible and avoid discretionary travel. In Pennsylvania, Governor Wolf ordered the closure of non-life-sustaining businesses, and issued a Stay at Home Order on April 1 mandating individuals stay at home except for certain essential activities and life-sustaining work. These restrictions were made in an effort to flatten the curve and slow the rate of infection, and to prevent hospitals from being overwhelmed with patients.

As of July 21, 2020, there were more than 14.7 million confirmed cases of the coronavirus worldwide and over 600,000 deaths. Approximately 3.8 million of these cases and 140,000 of the deaths were in the United States, accounting for approximately one quarter of the total cases and deaths from the disease worldwide, despite accounting for only four percent of the world's population.[1] According to the CDC, as of July21 Pennsylvania was 10th among states in overall infections with more than 101,000 confirmed and probable cases, or roughly 794 per 100,000 residents. Pennsylvania was 6th among states in total deaths from the virus, with more than 7,000 total deaths.[2]

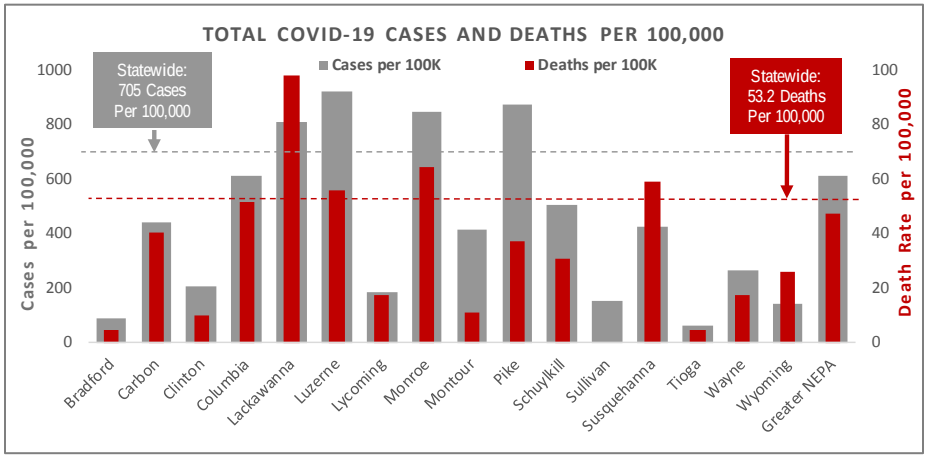
COVID-19 Data as of 7/6/2020		
County	**Total Cases**	**Deaths**
Bradford	56	3
Carbon	287	26
Clinton	81	4
Columbia	411	34
Lackawanna	1,734	207
Luzerne	2,958	178
Lycoming	214	20
Monroe	1,439	109
Montour	76	2
Pike	503	21
Schuylkill	755	44
Sullivan	10	0
Susquehanna	186	24
Tioga	27	2
Wayne	141	9
Wyoming	40	7
Greater NEPA	**8,918**	**690**
Pennsylvania	**90,304**	**6,754**

Source: PA Department of Health

Nearly 9,000 people in the greater northeastern Pennsylvania region have tested positive for the virus since the first cases were reported in the region on March 13, and almost 700 residents have died. [3,4] In the greater NEPA region, Luzerne, Lackawanna, and Monroe counties have the most total coronavirus cases and reported deaths. These three counties have a higher rate of cases and deaths per 100,000 people than the statewide rate. Pike County also has a higher rate of cases per 100,000 people than the statewide rate, although the death rate is lower than the statewide rate.

Lackawanna County's nursing and personal care homes have been hit hard by the virus. Cases in long-term care facilities account for half of the total reported cases in Lackawanna County and the majority of deaths. In Luzerne County, nearly half of the confirmed cases are in two zip codes that encompass the Hazleton area. The disproportionate number of cases in this region was driven by the continued operation of large manufacturing and distribution facilities, where it is difficult to implement social distancing and sanitizing measures to limit the spread of the virus.

The number of infections and deaths from the virus is likely underreported. People can be infected without showing symptoms, and not everyone who has symptoms gets tested or diagnosed. Likewise, the death toll may be undercounted, as it excludes those who may have died of the disease but were never diagnosed. Although the rate of new COVID-19 cases has risen in other states and some counties within Pennsylvania recently, Northeastern Pennsylvania has continued to see positive trends, with a low rate of new cases in the region.



[1] (Johns Hopkins Univerity of Medicine, 2020)
[2] (Centers for Disease Control and Prevention, 2020)
[3] (Pennsylvania Department of Health, 2020).
[4] Greater northeastern Pennsylvania region includes the following counties: Bradford, Carbon, Clinton, Lackawanna, Luzerne, Lycoming, Monroe, Montour, Pike, Schuylkill, Sullivan, Susquehanna, Tioga, Wayne, and Wyoming.

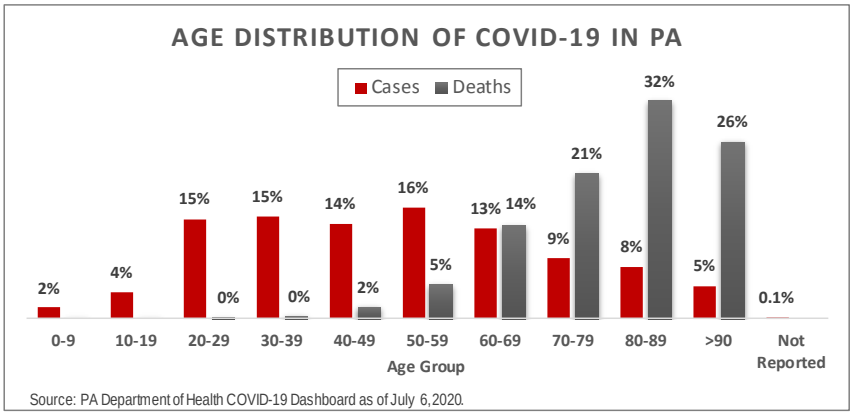
Another commonly sought metric is the recovery rate from COVID-19. According to the PA Department of Health, 77 percent of individuals with reported COVID-19 cases in PA are estimated to have recovered as of July 10. States are using different definitions as a metric for recovery. In Pennsylvania's case, if a case has not been reported as a death, and it is more than 30 days past the date of their first positive test (or onset of symptoms) then an individual is considered recovered.[5]

The Centers for Disease Control and Prevention does not report the recovery rate at the national level.

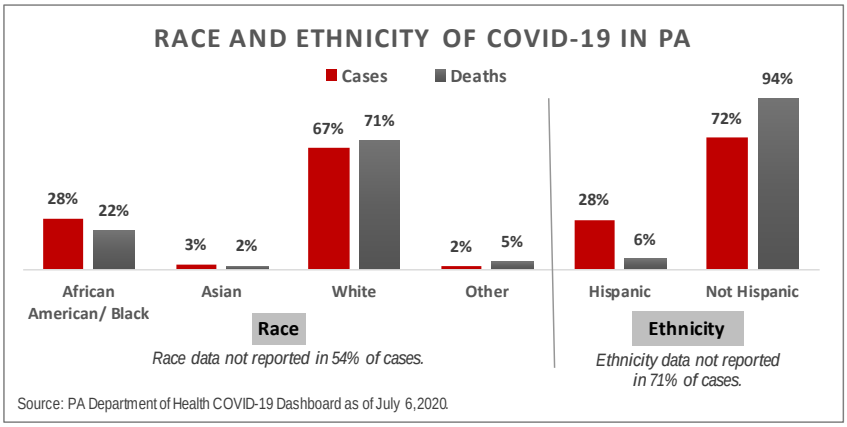
And although the frequently referenced Johns Hopkins University COVID-19 Case Tracker includes a recovery count by state, the number is an estimate created using available media reports and county and state data, and is probably understated according to the site's creator.[6] Having a uniform definition of recovery and uniform reporting of recovery data could help improve modeling of the trajectory of the pandemic, however, public health officials are more focused on obtaining accurate counts of new cases to track the path of the outbreak.

Demographics

Cases of COVID-19 in Pennsylvania have been widely distributed among age groups 20 and older. As of July 6, those ages 20 to 59 accounted for 60 percent of cases, those age 60 and older accounted for 35 percent of cases, and those under age 20 accounted for 5 percent of cases. Although the age 60 and older group accounted for just over one-third of cases, they were more likely to be severely impacted by the virus, accounting for 93 percent of reported deaths from the virus. Those ages 80 and older were most impacted, accounting for 58 percent of deaths.



Source: PA Department of Health COVID-19 Dashboard as of July 6, 2020.



Source: PA Department of Health COVID-19 Dashboard as of July 6, 2020.

While data on the age of victims has been consistently collected and reported, Pennsylvania struggled to collect information on race and ethnicity. As of July 6, race data was not available for 54 percent of confirmed cases and ethnicity data was not available for 71 percent of cases in Pennsylvania. The collection of race and ethnicity data has not been consistent among Pennsylvania counties, and currently only statewide data on these demographics are available from the Pennsylvania Department of Health.

Of the cases for which race data is available, White residents, who represent 80 percent of the overall population in Pennsylvania, accounted for approximately two-thirds of cases and more than 70 percent of deaths. African Americans have been disproportionately affected by the virus. While African Americans account for 11 percent of the overall population in Pennsylvania, they account for 28 percent of cases and 22 percent of deaths among the cases for which data is available. This is also the

[5] (Pennsylvania Department of Health, 2020)

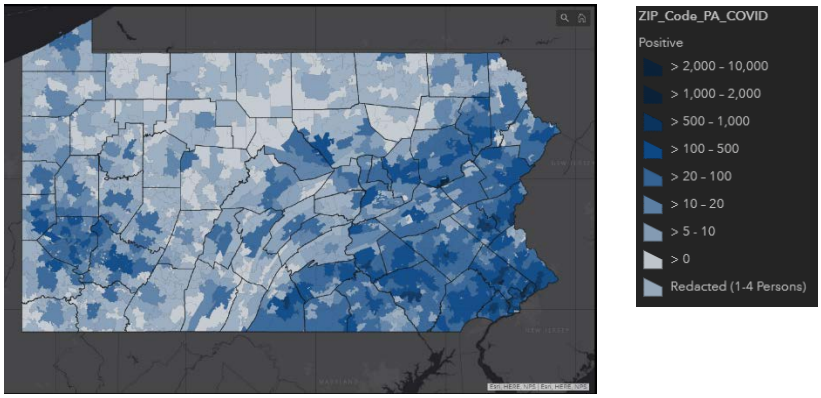
[6] (Marfin, 2020)

case for the Hispanic/Latino population. While representing 7.6 percent of the total population in Pennsylvania, the Hispanic/Latino population accounts for 28 percent of COVID-19 cases in which ethnicity data has been reported. Although this population group has a disproportionately higher rate of reported cases, the death rate is more in line with the population rate, with the Hispanic/Latino population accounting for 6 percent of reported deaths.[7]

Inconsistent data collection and a lack of data at the local level makes it difficult to understand how the COVID-19 pandemic has impacted different demographic groups. This lack of clarity may further complicate response efforts and put more vulnerable populations at risk.

The following maps provide a look at the case counts by zip code in Pennsylvania, as reported by the Department of Health, and the racial diversity by zip code, based on 2010 data from the U.S. Census Bureau on the percentage of the population that is other than White alone. Although the demographics have shifted and the diversity of the population in PA has increased from 82.6% White alone in 2010 to 80.1% White alone in 2018, the maps help illustrate how regions that have been historically more racially diverse tended to be disproportionately impacted by higher case counts.

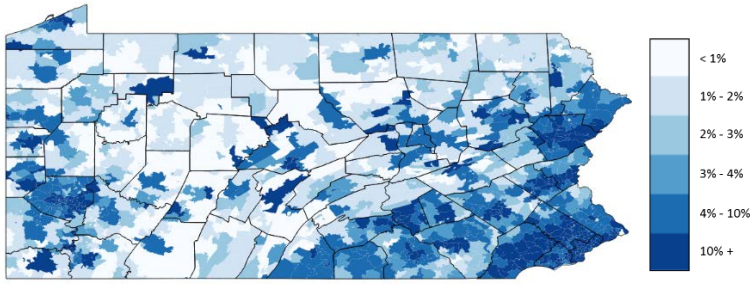
Pennsylvania COVID-19 Dashboard Zip Code Case Data as of 7/10/20



Source: PA Department of Health, data reported as of 7/10/2020.

Racial Diversity in Pennsylvania by Zip Code 2010

Percentage of Population with Race Other than White Alone



Source: U.S. Census Bureau 2010

[7] Overall Pennsylvania population percentages for racial and ethnic groups are from the U.S. Census Bureau 2018 American Community Survey.

Adequacy of Facilities and Equipment

As the COVID-19 outbreak started impacting the United States, the response by the nation's healthcare system was being hampered by inadequate supplies of personal protective equipment (PPE), ventilators, facilities and other equipment and cleaning supplies needed to treat patients while keeping first responders safe. It quickly became apparent that stockpiles of needed equipment were not adequate to respond to the scale of the pandemic, and issues with supply chain logistics made it difficult to ensure adequate materials were directed to regions most in need. States find it difficult to allocate resources to stockpiling preventive supplies that may expire before they are needed, or may not be needed at all. There are conflicting views about whether it is the federal or individual state government's responsibility to maintain an emergency stockpile. In this case, shortages at both levels resulted in supply chain issues when there was not enough available supply to meet the increased demand.

In mid-March, the Federal Emergency Management Agency (FEMA) was empowered to coordinate the distribution of needed medical supplies to health workers. But some healthcare facilities and states continued to struggle to obtain needed supplies. According to a nationwide survey of hospital administrators that was conducted on behalf of the U.S. Department of Health and Human Services (HHS) in late March, hospitals faced substantial challenges expanding their facilities' capacity to treat patients with COVID-19, and reported needed assistance related to PPE, testing, supplies, durable medical equipment, and staffing. [8] Facilities turned to non-traditional sources to try and procure medical equipment and supplies, including home supply stores and online retailers, among others. Nurses nationwide and in the NEPA region sought federally-mandated production of PPE, including masks, gowns, and gloves. New methods to sanitize and reuse protective supplies and repurpose medical equipment were explored in an effort to reduce shortages. Without a coordinated effort to manage the supply chain, facilities, states, and the federal government ended up competing against each other to purchase supplies, and faced increased costs as demand grew and bidding drove up prices. According to one analysis, in New York state, which has been hit hardest by the virus, state officials at one point were paying 15 times the typical price for some needed types of medical equipment.[9]

Smaller facilities and states with less buying power faced increased difficulty obtaining supplies. Some states banded together to acquire materials and prevent bidding against each other. In early May, Pennsylvania joined with six other Northeast states – Delaware, New York, New Jersey, Connecticut, Rhode Island and Massachusetts – to create a regional supply chain and jointly acquire needed medical equipment and supplies in an effort to reduce costs through larger volume purchasing. The consortium intends to leverage suppliers within the region if possible, while still working with the federal government to procure supplies.

In the nationwide HHS survey, hospitals reported severe shortages of testing supplies and extended wait times for receiving test results in late March. These shortages and delays were less severe in our region. According to input from one regional hospital leader, there have been moderate shortages in COVID-19 testing supplies and moderate delays in receiving test results, however they are looking for support from government agencies to provide rapid test kits. Similarly, although there were widespread shortages of PPE nationally due to the increased demand, and shortages of other critical supplies and materials, severe shortages were not reported regionally. There was widespread support from the community, with regional hospitals reporting many local businesses and community members donated medical supplies.

In early April, an order was signed in Pennsylvania mandating that health care providers and facilities, and manufacturers, distributors and suppliers of PPE, pharmaceuticals and other medical resources located within the commonwealth, submit current inventory quantities of PPE, pharmaceuticals and other medical resources to the Pennsylvania Emergency Management Agency (PEMA), and provide written reports detailing facility health care

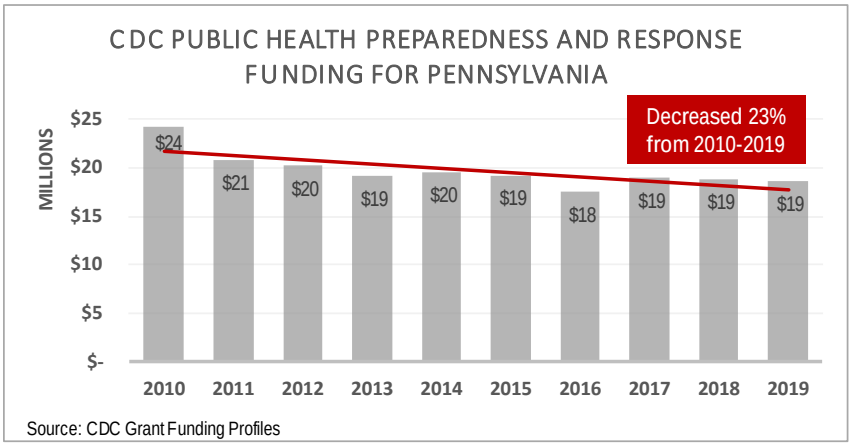
[8] (Grimm, 2020)

[9] (Soergel, 2020)

needs. PEMA would arrange for supplies to be allocated to where they are needed most and make arrangements with other commonwealth agencies to reimburse providers and facilities.[10]

Part of the reason for shortages in federal and state stockpiles of supplies has been a decline in public health funding. According to the nonprofit Trust for America's Health, less than 3 percent of the estimated $3.6 trillion the United States spends annually on health is directed toward public health and prevention. Public health funding in large part filters down from the federal government to state and local governments and agencies. In 2019, Pennsylvania received nearly $248 million in federal funding through CDC programs. Pennsylvania's state public health funding increased 2.3% in 2019 to nearly $193 million. However, according to the State Health Access Data Assistance Center, Pennsylvania fell far below other states in per-capita state public health spending, ranking 46th in the nation and spending $15 per capita on public health.[11]

Federal funding for the Public Health Emergency Preparedness program decreased 28% since 2002 to $675 million in 2020, while funding for the Hospital Preparedness Program decreased by almost half to $275.5 million from 2004 to 2020.[12] CDC funding for Pennsylvania's Public Health Preparedness Response decreased 23 percent from 2010 to $18.7 million in 2019.



When public health emergencies occur, supplemental, short-term federal funding may be authorized to address outbreaks. The CARES Act provided $2.2 billion to the CDC to fund prevention, preparedness, and response efforts, of which $950 million was to go to state, local territorial and tribal public health response. Pennsylvania was awarded $29.3 million for COVID-Public Health Emergency Preparedness and Response through the CARES Act. Increased, sustained funding and improved communication and coordination among federal and state agencies is needed to help strengthen the public health and emergency preparedness infrastructure.

Hospitals and healthcare providers should also re-evaluate their guidelines for keeping protective equipment and other supplies stockpiled for crisis situations. In the current fee for service healthcare system, supply-chain management at hospitals is generally focused on ensuring they are equipped to handle the procedures that are in-demand by patients and covered by health insurers. Hospitals do not have an incentive to stockpile ventilators or other costly medical equipment that may only be needed when there is an unexpected surge like the current pandemic. Likewise, manufacturers of medical equipment do not have an incentive to produce products with low margins, such as testing supplies and protective gear, unless they are in demand. Re-evaluating guidelines to ensure there is a sufficient supply of protective equipment on hand to handle an unexpected surge in demand can help healthcare providers be more prepared and minimize future shortages.

Although the largest hospital systems in the northeastern PA region, Geisinger Health System and Commonwealth Health, did not report severe shortages of supplies, they reportedly did activate mutual aid agreements to share information on what equipment, beds and expertise were available.[13]

[10] (Governor Tom Wolf, 2020)
[11] (SHADAC, 2019)
[12] (Trust for America's Health, 2020)
[13] (O'Connell, COVID-19 unites hospitals normally locked in rivalries, 2020)

In addition, they shared information on local projection models, had regular discussions regarding capacity, and aided smaller hospitals in the region with needed equipment. This collaboration and cooperation is an example of how competing healthcare providers can work together to address public health needs.

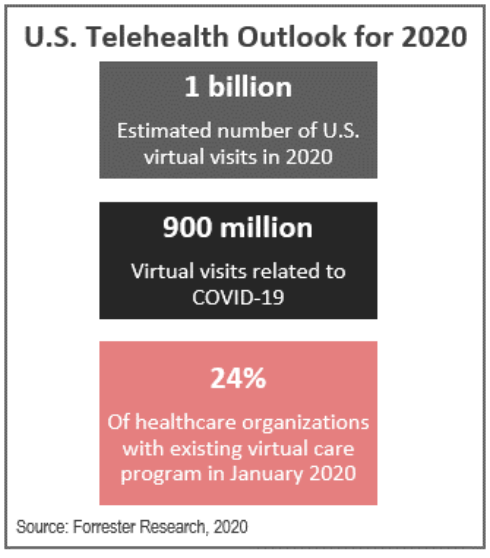
Staffing Levels and Care Delivery Models

The COVID-19 pandemic has put increased focus on the need to improve the preparedness of the health care delivery system and support the ability to scale up the disaster readiness workforce in response to emergencies. Although there were no major capacity issues reported regionally, the health care infrastructure nationwide was not prepared to support quickly shifting the health care workforce to meet critical needs in hot spot areas. The pandemic taxed the capacity of the health care workforce and forced health care organizations to revise their care delivery methods in order to safely treat infected patients while still addressing other health care needs of the population. Hospitals had to retrain and in some cases redeploy their staff to address immediate care needs. In many cases, preventive and non-emergency care was suspended or shifted to deliver care virtually through telemedicine consultations.

Those on the frontlines of caring for patients face great risk, and partial data from the CDC indicates that at least 87,000 healthcare personnel have been infected and close to 500 have died from COVID-19 as of June 29.[14] Inadequate protective equipment and changing guidance on infection control put the safety of health care workers at risk, especially in the early weeks of the outbreak. Ensuring the adequacy of personal protective equipment and strengthening workplace safety standards are essential to protecting the healthcare workforce. An order recently issued by the PA Department of Health requires hospitals to develop, implement and adhere to policies and procedures that provide for the safety of the hospital staff and patients, including procuring and distributing nationally approved respirators to hospital staff, requiring universal masking for facility visitors, notifying staff members of exposure to COVID-19 cases, and testing staff who are in close contact upon request.[15]

Health care organizations are reexamining their traditional care delivery methods and settings, and other alternatives are being explored in order to limit the spread of the contagious disease. Instead of directing people exhibiting symptoms to seek in-person care, some providers have used telemedicine consultations or at-home visitations by designated health workers to evaluate and manage care for non-life threatening situations.

In some cases, a dedicated response team of workers provides in-home care to infected patients in order to limit widespread exposure. MetroHealth, a public health system in Ohio, addressed COVID patients' health care needs through a phone hotline, and also offered assistance with their basic social needs including same-day delivery of groceries through the hospital's Institute for H.O.P.E., which was formed to address the social determinants of health through opportunity, partnership, and empowerment. Locally, Geisinger launched a home monitoring mobile app program to connect with patients recovering from COVID-19 at home. Revised care delivery models that bring care to the patient at home while also addressing their social needs can lead to improved health outcomes while minimizing the burden on the health care system.



[14] (Centers for Disease Control and Prevention, 2020)

[15] (Pennsylvania Department of Health, 2020)

Analysis of Local Hospital Capacity

As of late June, hospital capacity in the NEPA region has been sufficient to accommodate the number of individuals requiring hospitalization from COVID-19 complications. Reports suggest that initial models used to calculate how many individuals would need hospitalization based on CDC data were overstated. Early data from the CDC suggested more than 11 people would be hospitalized for each individual who died from COVID-19. More recent data suggest that ratio is closer to four hospitalizations per each death.[16] The hospitalization rate has declined as doctors gained experience treating coronavirus patients outside of the hospital. In addition, stay-at-home orders may have helped limit the spread of the virus, resulting in fewer hospitalizations than originally anticipated.

Based on 2018 Hospital Reports from the PA Department of Health, there were nearly 4,000 general hospital beds and 341 intensive care or mixed ICU/CCU beds in the greater NEPA region in 2018. During the COVID-19 pandemic, many hospitals adjusted their operations to maximize their intensive and critical care capabilities. Lackawanna, Luzerne, and Monroe Counties have the most general and intensive/critical care beds in the region due to the presence of the region's largest hospital systems, Commonwealth Health, Geisinger Health System, and Lehigh Valley Health Network. These counties also have 72 percent of the ventilators in the Greater NEPA region, based on data published on the PA Department of Health Hospital Preparedness Dashboard.

Greater NEPA Region Hospital Resources

	General Acute Care Hospitals	General Hospital Beds	General Beds per 1,000	Total Intensive Care and Mixed ICU/CCU Beds	Total Ventilators*
Bradford	3	327	5.3	42	36
Carbon	1	151	2.4	13	3
Clinton	1	47	1.2	6	3
Columbia	2	166	2.5	22	12
Lackawanna	3	692	3.3	54	119
Luzerne	3	828	2.6	53	133
Lycoming	3	300	2.6	32	40
Monroe	2	339	2.0	24	6
Montour	1	559	30.6	56	187
Pike	0	0	0.0	0	16
Schuylkill	2	238	1.7	16	10
Sullivan	0	0	0.0	0	0
Susquehanna	2	50	1.2	4	3
Tioga	1	25	0.6	5	27
Wayne	1	95	1.8	8	9
Wyoming	1	44	1.6	6	3
Greater NEPA Region	**26**	**3,861**	**2.7**	**341**	**607**
Pennsylvania	**246**	**34,416**	**2.7**	**3,164**	**5,344**

Source: Pennsylvania Department of Health Hospital Report 2018.

*Total Ventilators from Knowledge Center Hospital Information System as reported on PA DOH Hospital Preparedness Dashboard 6/19/2020.

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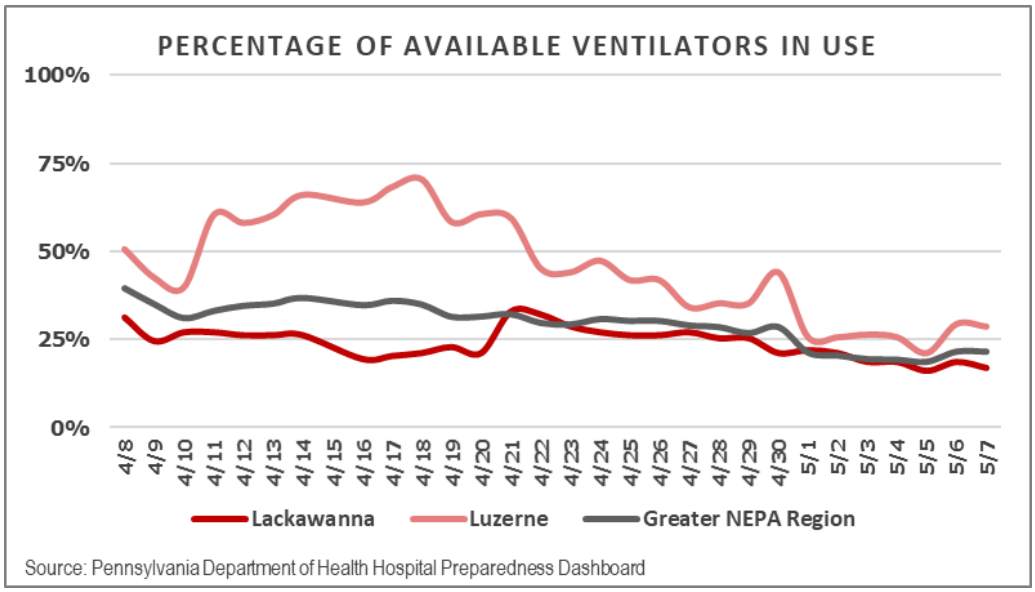
[16] (Ornstein, 2020)

From early April to early May, when the number of daily COVID-19 cases peaked in most counties in the NEPA region, less than half of available ventilators were in use in Lackawanna County and the greater NEPA region, while ventilator usage reached nearly 75 percent in Luzerne County in mid-April.

Despite a higher number of confirmed cases reported in Luzerne and Lackawanna counties compared to some other portions of the state, the regional healthcare system was able to accommodate the number of patients needing hospitalization and critical care without being overwhelmed. Modifications made to ensure capacity, protect patients and staff, and limit the spread of the virus. Geisinger took steps to keep COVID-19 units in hospitals in separate, designated areas, set up screening tents outside of emergency departments, and launched a home monitoring mobile app program to connect with patients recovering from COVID-19 at home. Commonwealth Health limited entry points to their facilities and screened everyone entering their hospitals for symptoms. Patients suspected of being infected were screened in separate rooms or areas, interactions were limited to small care teams, and COVID-19 positive patients were grouped together in separate, designated units. Both Geisinger and Commonwealth Health offered telemedicine video visits to provide routine, non-emergency care.

According to published reports, as of June 10 Geisinger had successfully discharged more than 500 COVID-18 patients throughout its health system, including 160 combined at Geisinger Wyoming Valley hospital and Geisinger South Wilkes-Barre hospital in Luzerne County, and 160 at Geisinger Community Medical Center in Lackawanna County. Of the more than 500 patients discharged, about 150 had spent time in the intensive care unit, and more than 95 had been on ventilators.



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[17] (Geisinger, 2020)

Impact on Community Health Centers

Community health centers play a pivotal role in providing health care services, typically to underserved populations. During the COVID-19 pandemic, community health centers report having to modify their operations to meet an increased need for coronavirus testing while trying to continue providing patient services through telehealth.

According to results from a survey of 31 federally-funded health centers in Pennsylvania (representing 72 percent of all statewide health centers) from the National Association of Community Health Centers, as of June 19, 94 percent of community health centers had the ability to conduct COVID-19 testing, with 76 percent able to conduct walk-up or drive-up testing.[18] As evidence of the role community health centers play in providing care to underserved populations, 57 percent of patients tested were racial and/or ethnic minorities, and 67 percent of racial and/or ethnic minority patients tested were positive for COVID-19.

Pennsylvania Health Centers' Response to COVID-19	
94%	Have the ability to conduct COVID-19 testing
76%	Have walk-up or drive-up testing capability
57%	Of Patients tested were racial and/or ethnic minorities
45%	Of visits were conducted virtually, on average

Source: HRSA Pennsylvania Health Center COVID-19 Survey Summary Report, June 19, 2020.

Regional community health organizations surveyed by the Institute have been providing care to individuals seeking COVID-19 screening and treatment. Feedback from regional community health organization leaders indicates they have encountered delays in waiting for COVID-19 test results, and moderate shortages in Personal Protective Equipment (PPE) and other critical non-medical supplies and materials, such as cleaning supplies and linens.

Federal and state governments' policies for telehealth coverage and payments were amended to allow the increased use of this technology during the pandemic in order to continue providing care to patients. According to the National Association of Community Health Centers, 98 percent of health centers nationwide used telehealth/ telephonic services during the pandemic, based on data reported as of May 15.[19] In Pennsylvania, 45 percent of total visits at health centers were conducted virtually based on June survey results.[20]

One regional community health organization surveyed by the Institute indicated the most difficult challenge in responding to COVID-19 was transitioning to telehealth services in order to keep patients, staff and volunteers safe. They had to ensure they had the appropriate infrastructure in place in order to continue providing immediate quality care to patients, and established a process to triage calls through a Nursing Director and direct them to providers working at home. Telehealth services for medical care, case management, chronic disease management, counseling, medication education, and other services were provided through online and phone platforms, and staff had remote access to electronic medical records. Another organization also limited in-person visits, and attempted to provide care through telehealth.

While noting an increase in telehealth visits as a result of social distancing efforts, regional community health organizations reported having to reduce the types of services that could be provided during the pandemic. Nationwide, health center visits were down to about half of normal rates at the end of April.[21] Visits have been slowly increasing, and as of mid-June were at 73 percent of normal rates nationwide and 71 percent of normal rates in Pennsylvania.[22] While overall patient volume has decreased, a few regional organizations noted an increase in the number of uninsured individuals seeking care.

An additional challenge noted by regional community health centers is that volatility in the information and guidance being released by

[18] (Health Resources and Services Administration, 2020)
[19] (National Association of Community Health Centers, 2020)
[20] (Health Resources and Services Administration, 2020)
[21] (National Association of Community Health Centers, 2020)
[22] (Health Resources & Services Administration, 2020)

government agencies made it difficult to get accurate information, leading to uncertainty and confusion. To mitigate this challenge, they focused on staying current on CDC and FDA guidelines and approved testing practices. One organization noted that the establishment of local health departments could better help support community health facilities.

According to one local community health organization, they are expecting to face a surge of new patients seeking healthcare services after the stay-at-home order is lifted. The surge in unemployment and associated loss of employer health coverage may increase the number of patients who are unable to pay for healthcare services. In addition, they expect pent-up demand from existing patients at community health facilities who have delayed routine preventive care and lab work while hospitals and diagnostic facilities were only providing emergency care. As a result, there will be an increasing need for PPE to provide in-person care for the expected surge in patients. Facilities will also need to maintain enhanced cleaning protocols and screening procedures, and likely reconfigure patient appointments and treatment areas to minimize in-person contact.

Community health organizations are facing financial challenges as a result of the pandemic. One regional organization noted they are facing a significant decrease in revenue due to reduced visits, while facing a significant increase in expenses due to a dramatic increase in the cost of supplies, the need for frequent cleaning, and increased staffing costs for additional screening measures. One organization noted the need to recoup lost revenue from types of testing that may not be included in benefit coverage. Another local non-profit organization, which does not receive federal funding and operates solely on donations, grants, and proceeds from special events, needed to cancel their primary annual fundraising event. Although the regional organizations which provided input to the Institute have received funding through the CARES Act, additional funding from government agencies is needed to support community health providers responding to the COVID-19 pandemic.

Impact on Nursing Homes and Long-Term Care Facilities

Residents in U.S. nursing homes and long-term care facilities have been more affected by the COVID-19 outbreak than any other group, and account for a large share of deaths from the virus. Due to the congregate nature of these facilities and their vulnerable populations of typically older residents with underlying medical conditions, residents and staff are at high risk of being affected by COVID-19.

Nursing home data released by CMS as of June 21 indicated there were more than 118,000 confirmed COVID-19 cases in nursing homes and nearly 33,000 deaths nationwide. Pennsylvania, which has one of the highest numbers of nursing homes in the U.S., is ranked among the top ten states in resident cases and deaths per 1,000 residents, with 152.2 cases and 48.5 deaths per 1,000 residents, on average.[23]

According to the PA Department of Health, as of June 30 there were more than 21,000 cases of

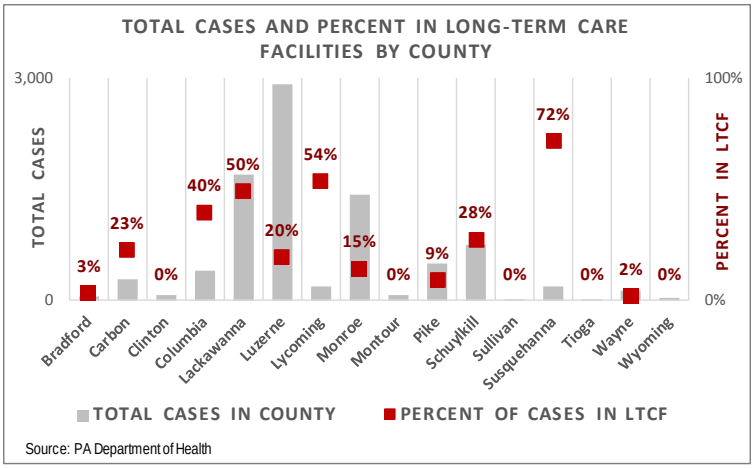
COVID-19 Long-Term Care Facility Data as of 6/30/2020

County	Cases Residents & Employees	Number of Deaths
Bradford	2	0
Carbon	64	15
Clinton	0	0
Columbia	160	35
Lackawanna	845	203
Luzerne	572	125
Lycoming	101	24
Monroe	210	45
Montour	0	0
Pike	47	12
Schuylkill	206	26
Sullivan	0	0
Susquehanna	131	26
Tioga	0	0
Wayne	3	0
Wyoming	0	0
Greater NEPA	**2,341**	**511**
Percent of Total	***27%***	***76%***
Pennsylvania	**21,096**	**4,583**
Percent of Total	***24%***	***80%***

Source: PA Department of Health

[23] (Centers for Medicaid and Medicare Services, 2020)

COVID-19 at long-term care nursing facilities in Pennsylvania, including nearly 18,000 resident cases and over 3,000 cases among employees. These represent approximately 24 percent of all cases in Pennsylvania. There were also nearly 4,600 deaths among residents from nursing or personal care facilities, representing 80 percent of all deaths statewide. The rate of cases in long-term care facilities in northeastern Pennsylvania is similar; cases in these facilities account for 27 percent of all cases in the region and 76 percent of deaths. Although some states are tracking and reporting the number of nursing home residents that have recovered from COVID-19, it is not being reported by the PA Department of Health.



Source: PA Department of Health

Lackawanna County far surpasses all other counties in the northeastern Pennsylvania region in the number of cases and deaths at long-term care facilities. Cases in long-term care facilities account for at least half of the total reported cases in Lackawanna, Lycoming, and Susquehanna Counties. In Luzerne County, which has the highest number of cases in the region, one in five reported cases are in long-term care facilities.

Despite federal and state mandates to centralize the collection of data from nursing homes and long term care facilities on the number of COVID-19 cases and deaths at these facilities, there are still concerns about the accuracy of the data, particularly the reported number of deaths.[24] Discrepancies between counts reported by individual facilities, state reported data, and federally reported data from CMS highlight the disparities in the data and make it difficult to assess the situation and direct resources where they are needed most. Although state and federal agencies have attempted to address reported discrepancies, further improvements are needed to improve the accuracy of reporting.

Like hospitals, nursing and personal care home facilities have faced shortages of personal protective equipment and testing supplies, and delays in receiving test results. According to input received from one regional nursing home leader in early May, there was a severe delay in waiting for COVID-19 test results. Facilities are looking for assistance from government agencies to supply COVID-19 test kits and PPE, and to require hospitals to test patients before discharging them. One regional leader indicated they are trying to retain a 90-day supply of all PPE in order to prepare for future waves of outbreaks.

To help address regional shortages, AllOne Foundation and Charities in partnership with State Senator John Yudichak announced the establishment of a Northeastern Pennsylvania (NEPA) Nursing Home SOS (Supply Operate Save) Program to distribute resources such as infection control supplies, personal protection equipment and symptom screening supplies. The program was initially funded through matching $250,000 donations from Earth Conservancy and AllOne Foundation and Charities, and has since received additional contributions of $250,000 each from Luzerne and Lackawanna Counties.[25]

Facilities that were not able to conduct diagnostic testing quickly enough faced delays in identifying and isolating residents and staff with the virus, which led to widespread outbreaks in many facilities. The biggest challenges noted by local nursing home leaders have related to keeping residents and staff safe, by trying to isolate residents to prevent and manage outbreaks, and ensuring hospitals conduct COVID testing on patients before releasing them to nursing homes. To mitigate these challenges, nursing

[24] (Mocarsky, 2020)

[25] (AllOne Foundation and Charities, 2020)

home have been trying to follow guidelines from the PA Department of Health, CDC and CMS.

Approaches regional facilities have taken to try and prevent the spread of the virus include establishing separate units or locations specifically designated for residents with suspected and confirmed COVID infections. Some states, including Connecticut, have adopted a more coordinated approach, and established COVID-19-only facilities just for infected residents and those released from hospitals after receiving treatment for COVID-19 in order to limit widespread outbreaks across all facilities. States which initially mandated facilities take back coronavirus patients after being discharged from hospitals, including New York, faced widespread outbreaks.

Initially, Pennsylvania's nursing homes were not required to publicly report COVID-19 infections and deaths. As outbreaks in nursing homes increased nationwide, CMS issued guidance in late April requiring nursing homes to report COVID-19 cases to the CDC and inform residents and their families of cases in their facilities. The directive was made in an effort to improve existing infectious disease reporting to health departments and better target support efforts and resources where they are needed most. Federal and state elected officials in Pennsylvania called for public reporting of COVID-19 cases and deaths in nursing homes, and the PA Department of Health announced in mid-May they would begin collecting and reporting this data on their website. However, the initial release of the facility-level data on May 19 led to widespread reports of discrepancies with individual facility's internal records, highlighting the challenges the Department of Health continues to face in collecting and reporting accurate data on cases. State officials indicated they are trying to reconcile data as they transition to a new reporting system used by the CDC.

On May 11, the federal government recommended that all residents and staff at nursing home facilities be tested. Federal officials at CMS have recommended a one-time test for all residents and staff, weekly retesting of staff, and weekly retesting of residents until none test positive. Although the testing was not federally mandated, the PA Department of Health announced plans for universal testing for staff and residents at nursing home facilities and testing for residents who were hospitalized before they are returned to their nursing home or long-term care facility. Initially, the testing was not mandatory. However, the department later issued an order on June 8 requiring all nursing homes to complete baseline testing of all residents and staff by July 24. Updated guidance issued to long-term care facilities other than nursing homes extended the order to complete testing of all residents and staff at these facilities at least once by August 31. Results from the testing will be used to cohort residents and staff who have been exposed and infected, and target where resources should be allocated. According to the Department of Health, priority for testing will be given to facilities with larger outbreaks, those in regions with significant community spread, and those in areas with high population density.

The main nursing home trade group, the American Health Care Association (ACHA), supported the testing recommendation but sought assistance from the federal and state governments to fund and conduct the testing. The group estimated it would cost $672 million for a one-time test for all residents and staff in nursing homes and assisted living facilities nationwide, which underestimates the total cost since ongoing testing is recommended to monitor and contain outbreaks. In Pennsylvania, the ACHA and National Center of Assisted Living (NCAL) estimates the cost would be $22.2 million for a one-time test of all nursing home residents and staff statewide. Facilities are expected to carry out testing on their own but can contact the state for support if needed. The PA Department of Health intends to provide facilities with testing swabs from the federal government and provide mobile testing using the PA National Guard for facilities unable to test on their own.

Testing and Contact Tracing

The *Guidelines for Opening Up America Again* issued by the White House and CDC outline the testing and contact tracing capabilities states should have in place in order to detect and prevent the spread of COVID-19. As outlined in the testing overview and blueprint, the federal government will be responsible for enabling innovation, scaling supplies and providing strategic guidance, while state governments will be responsible for the actual formulation and implementation of testing plans, and monitoring and rapid response programs. Testing plans and rapid response programs will be federally supported, while being managed at the state level and locally executed.[26]

Initially, due to a shortage of tests and supplies, the sickest patients and front-line workers were given priority for testing. Guidelines for testing have since been relaxed, however, they vary by state. The CDC has issued guidance for who should be tested, but has left decisions about testing to individual states, local health departments, and healthcare providers.[27]

Public health experts have highlighted the need for increased testing and contact tracing. In the earlier phases of the pandemic, labs faced capacity challenges related to strict testing guidelines, supply chain fragmentation, incompatibility of electronic medical record systems, and a lack of coordination and reporting on testing capacity.[28] While testing capacity has improved, demand has increased as states have started to reopen and cases have increased, and issues with the supply of testing components still persist.

According to the PA Department of Health, the commonwealth's vision is to ensure that anyone experiencing symptoms of COVID-19 is able to receive a diagnostic test. In order to make testing accessible, available, and adaptable, the Commonwealth set a goal for 90 percent of people in Pennsylvania to live within 45 miles from a testing site, and for 2% of the population in every region throughout the commonwealth to be tested per month, amounting to a target of over 256,000 individuals per month statewide, including 32,000 individuals per month in the Northeast Region.[29]

In the greater NEPA region, the state established a temporary mass testing site in April at the Mohegan Sun Pocono Arena at Casey Plaza for symptomatic first responders, health care workers, patients 65 and older, and residents who live or work in the state to get tested after pre-registering. Initially, registration could only be completed online. After recognizing the need to accommodate individuals who may not have internet access, the option to register by phone was added. During the nearly six-week period from April 20 through May 29, 2,048 individuals were tested. According to a Department of Health news release, more than seven percent of those tested were positive.[30] The site could accommodate testing 200 people per day, but on average, less than 60 people per day were tested during this timeframe. The testing site was closed on May 29 and resources were directed to other areas. Possible reasons for the under-utilization include communication and coordination challenges, and lack of access through public transportation. The state has also begun providing drive-thru testing at various Walmart and Quest Diagnostics locations in areas with fewer testing sites.

Health departments will be charged with deploying contact tracing programs, which will require increased staff capacity. Currently, there are six county and four municipal health departments in Pennsylvania, with the Wilkes-Barre City Health Department the only one in the greater NEPA region. According to an analysis of the nation's public health infrastructure, Pennsylvania's public health agency staffing per resident declined 17 percent and expenditures per resident declined 10 percent from 2010 to 2019.[31] The CDC issued general guidance to states on contact tracing, but did not provide a formula for how many case investigators and contract tracers would be needed.

[26] (The White House, CDC and FDA, 2020)
[27] (Centers for Disease Control and Prevention, 2020)
[28] (Maxmen, 2020)
[29] (Pennsylvania Department of Health, 2020)
[30] (Pennsylvania Department of Health, 2020)
[31] (Weber, Ungar, Smith, Recht, & Barry-Jester, 2020)

While there currently is not a centralized statewide contact tracing system in place, according to the Department of Health there are about 500 trained contract tracers throughout the state, including 130 state health nurses. Public health experts estimate Pennsylvania needs from 2,000 to 4,000 contract tracers to reach the contacts of new COVID-19 cases within one week, based on previous case activity.[32] A Contact Tracing Workforce Estimator developed by the Fitzburgh Mullan Institute for Health Workforce Equity at George Washing University estimates over 3000 contact tracers are needed in Pennsylvania, including 48 in Luzerne County and 32 in Lackawanna County, based on population demographics and current COVID-19 case counts.[33]

The PA Department of Health is planning to partner with county/municipal health departments, established healthcare networks, academic institutions, disease intervention specialists, displaced workers who are trained in contact tracing workflow and other volunteer organizations to conduct contact tracing. Leaders from Geisinger have outlined the benefits of public-private partnerships leveraging local hospitals and health systems that have experience in contact tracing and staff trained to provide patient care.[34] Pennsylvania is also exploring the use of new contact tracing technology to boost its contact tracking efforts.

In order to expand the state's contact tracing efforts, the Department of Health was awarded a CDC grant for $18.7 million, with funds earmarked for contact tracing. In mid-June, the Department of Health announced it applied for a $301 million grant from the CDC to strengthen state and local public health capacity in the state, including funding to expand testing, case investigating and contact tracking efforts.

Contact Tracking Workforce Estimate

County	Population	Estimated Contact Tracers Needed
Bradford	62,622	10
Carbon	65,249	10
Clinton	39,238	6
Columbia	67,295	15
Lackawanna	214,437	32
Luzerne	320,918	48
Lycoming	116,111	18
Monroe	169,842	26
Montour	18,267	6
Pike	57,369	9
Schuylkill	148,289	25
Sullivan	6,428	1
Susquehanna	43,356	10
Tioga	41,981	7
Wayne	52,822	8
Wyoming	28,276	5
Greater NEPA	**1,452,500**	**236**
STATEWIDE	**12,702,359**	**3,111**

Source: Fitzhugh Mullan Institute for Health Workforce Equity at George Washington University, Contact Tracing Workforce Estimator as of 6/25/2020.

Exchanging Health Data

Having the technological infrastructure in place to quickly and accurately report and exchange health data is crucial in responding to health emergencies. The COVID-19 pandemic has highlighted the limitations of the current health IT infrastructure, and identified opportunities for improvement.

The systems and models used by state and federal agencies to track and report COVID-19 cases and testing results are fragmented, making it difficult to collect and consolidate data and develop a coordinated response. Electronic health records used by health care systems are built on differing technology platforms that often do not communicate with each other in order to exchange health care data between providers. In addition to the technological challenges, the communications from federal and state authorities has included changing guidelines and sometimes contradictory messaging, leading to confusion among health care providers and the general public.

Published reports have highlighted some of the challenges with tracking infection-rate data. According to the Associated Press, there is not uniformity in how states are reporting coronavirus testing and infection-rate data.[35] In Pennsylvania, the Department of Health is reporting confirmed and

[32] (Pattani & Gantz, 2020)
[33] (Fitzhugh Mullan Institute for Health Workforce Equity, 2020)
[34] (Ryu & Murphy, 2020)
[35] (Smith, 2020)

probable cases in the total case count. These cases include results from both viral tests, which detect active cases on the virus, and antibody tests, which show whether a person has been exposed to the virus at some point. Some public health experts have advised that viral test results should be reported separately in order to accurately track the number of active infections and how the virus is spreading.

In addition, the systems used to collect data by state and local health departments and health officials are not integrated and some are antiquated, making it difficult to compile accurate, timely records on testing rates, infections, deaths, and demographic information. To address these gaps, government agencies and the private sector should explore ways to collect more reliable, predictive data to help gauge where outbreaks are poised to occur in order to determine where resources should be concentrated. In addition, improve efforts to standardize reporting of health data, and collect and disseminate it in a more real-time format.

Funding Issues

The health care system is facing significant clinical and financial challenges as a result of responding to the COVID-19 pandemic. While federal and state funding is being distributed to help provide financial support, it likely will not cover the financial losses many hospitals, community health centers, nursing homes, and other health care providers are expected to incur.

The federal Coronavirus Aid, Relief, and Economic Security (CARES) Act and Paycheck Protection Program and Health Care Enhancement Act provided $175 billion in Provider Relief funds to hospitals and other healthcare providers on the front lines of the coronavirus response. The Provider Relief Fund was intended to help providers respond to the coronavirus and reimburse health care providers for expenses and lost revenue attributable to the virus.

As of June 10, $2.33 billion in Provider Relief Fund payments have been received by over 8,440 providers in Pennsylvania, including $253M by over 1,000 providers in the greater northeastern Pennsylvania region, including hospitals, doctor offices, specialist and other first responders.[36,37] According to an analysis by The Urban Institute, approximately 35 percent of the overall aid remains unallocated.[38]

State funding measures have also been enacted to support Pennsylvania's health care system.

- House Bill 1232 provided $50 million to purchase medical equipment and supplies for hospitals, nursing facilities and emergency medical services to meet the urgent needs by patients and staff.
- The Hospital Emergency Loan Program (HELP) provided nearly $324 million in funding to 31 hospitals statewide through a loan package to ensure facilities have sufficient personnel, equipment, and personal protective equipment. In the NEPA region, Robert Packer Hospital in Bradford County received $15 million through the loan program, and Geisinger Health System received $100 million for their facilities across the state.
- The state budget includes $2.6 billion of the COVID-19 relief funds Pennsylvania received through the CARES Act, including $420 million to assist nursing homes with COVID-19-related costs.

HHS Provider Relief Fund in Pennsylvania

Region	Total Relief Fund Payments	Total Providers Receiving Payments
Pennsylvania	$2.33B	8,440
Greater NEPA Region	$253M	1,041
Lackawanna County	$42.8M	211
Luzerne County	$44.5M	276

Source: HHS Provider Relief Fund. Includes payments through the General Distribution, High Impact Targeted Allocation, Rural Targeted Allocation and/or the Skilled Nursing Facility Targeted Allocation of the Provider Relief Fund.

[36] Greater northeastern Pennsylvania region includes the following counties: Bradford, Carbon, Clinton, Lackawanna, Luzerne, Lycoming, Monroe, Montour, Pike, Schuylkill, Sullivan, Susquehanna, Tioga, Wayne, and Wyoming.

[37] (U.S. Department of Health & Human Services, 2020)

[38] (Coughlin, Ramos, Blavin, & Zuckerman, 2020)

Hospitals

An analysis commissioned by the Hospital and Healthsystem Association estimates Pennsylvania hospitals could lose $10.2 billion during calendar year 2020 as a result of canceled elective surgeries and deferred medical treatment, and the costs of preparing for the pandemic and delivering services for COVID-19.[39] Halting elective procedures and non-emergency care led to a decline in hospitals' patient population and lost revenue. While developing surge capacity, hospitals incurred expenses to purchase personal protective equipment supplies, procure ventilators, and transform their facilities to try and isolate COVID-19 patients. In order to maintain adequate staffing levels, hospitals have incurred costs from increased staffing and overtime pay. Since hospitals are major economic drivers in our region, their losses will also have a broader impact on the communities they serve.

Hospitals may also face an increase in uncompensated care due to the expected increase in the uninsured rate as workforce reductions lead to loss of employer-sponsored health insurance. Even before the pandemic hit, Pennsylvania general acute care hospitals' faced a 9.3 percent increase in uncompensated care in fiscal year 2019 for the first time in five years to $820 million, according to the Pennsylvania Health Care Cost Containment Council.

Hospitals in the greater NEPA region have received over $127 million in Provider Relief Fund payments. The major health systems in our region, Commonwealth Health, Geisinger Health System, and Lehigh Valley Health Network, all received payments from the Provider Relief fund. While the support will help address some of the financial challenges resulting from responding to the COVID-19 pandemic, hospitals will still sustain significant financial losses

HHS Provider Relief Fund Awards to Greater NEPA Region Hospitals

Hospital	County	Award Amount
Geisinger Medical Center	Montour	$ 25,377,121
Geisinger Community Medical Center	Lackawanna	$ 16,140,579
Lehigh Valley Hospital - Pocono	Monroe	$ 14,964,424
Geisinger Wyoming Valley Medical Center	Luzerne	$ 12,594,295
Lehigh Valley Hospital - Schuylkill	Schuylkill	$ 9,048,220
Geisinger Lewistown Hospital	Montour	$ 8,033,128
Guthrie Robert Packer Hospital	Bradford	$ 7,120,282
Wayne Memorial Hospital	Wayne	$ 7,112,677
Commonwealth Health Wilkes Barre General Hospital	Luzerne	$ 6,281,471
UPMC Wellsboro	Tioga	$ 5,906,124
Geisinger Jersey Shore Hospital	Montour	$ 4,127,451
Commonwealth Health Regional Hospital of Scranton	Lackawanna	$ 4,043,280
Barnes-Kasson County Hospital	Susquehanna	$ 4,033,366
Endless Mountains Health Systems, Inc.	Susquehanna	$ 3,962,722
Commonwealth Health Moses Taylor Hospital	Lackawanna	$ 3,132,274
Bucktail Medical Center	Clinton	$ 3,122,393
Lehigh Valley Hospital Hazleton	Luzerne	$ 2,356,528
Geisinger Bloomsburg Hospital	Montour	$ 927,090
Commonwealth Health Berwick Hospital	Columbia	$ 888,947
Guthrie Towanda Memorial Hospital	Bradford	$ 570,794
Guthrie Troy Community Hospital	Bradford	$ 543,580
Commonwealth Health Tyler Memorial Hospital	Wyoming	$ 286,478
Total		**$ 140,573,224**

[39] (Marks & Goddeeris, 2020)

Community Health Centers

Community health centers are facing significant declines in revenues due to declining primary and preventive care visits as a result of government stay at home mandates, while incurring increased costs to modify their operations to screen and treat COVID-19 patients. Based on an analysis from the National Association of Community Health Centers, across all community health centers in Pennsylvania they are estimating $168 million in lost revenue over a six-month period.[40]

Community health centers will play a key role in making ongoing COVID-19 testing more easily accessible, especially for under-served and minority populations. To help cover the costs of testing and treating uninsured individuals diagnosed with COVID-19, the U.S. Department of Health and Human Services will provide reimbursement to health care providers for treating uninsured individuals generally at Medicare rates as part of the Family First Coronavirus Relief Act and CARES Act.

Estimated COVID-19 Impacts on Health Center Revenue, Employment and Visits

	U.S. Total	Pennsylvania
Lost Revenue (millions)	$7,594	$168
Lost Jobs	100,499	2,014
Lost Patient Visits	34,165,790	838,337

Source: National Association of Community Health Centers Fact Sheet, April 2020
Note: Estimates based on a 6-month period and assume 60% decline in visits during that time.

Federal funding for health centers included in the Paycheck Protection Program and Health Care Enhancement Act included nearly $17 million awarded to 43 health centers in Pennsylvania through the Health Resources and Services Administration (HRSA). This includes $4.3 million in funding for health centers in the NEPA region. Some of the funding will be used by health centers to expand their testing capabilities to meet the needs of their communities. Funds awarded for expanded testing capacity can be used to purchase personal protective equipment, train staff, procure and administer tests, cover laboratory services, conduct contact tracing activities, and expand walk-up or drive-up testing capabilities.

HHS COVID-19 Awards To NEPA Region Health Centers

County	Recipient Name and Award Title	Award Amount
Lackawanna	**SCRANTON PRIMARY HEALTH CARE CENTER, INC**	**$1,059,407**
	FY 2020 Expanding Capacity for Coronavirus Testing (ECT)	$277,474
	Health Center Coronavirus Aid, Relief, and Economic Security (CARES) Act Funding	$721,805
	FY 2020 Coronavirus Supplemental Funding for Health Centers	$60,128
	THE WRIGHT MEDICAL GROUP	**$75,750**
	Ryan White HIV/AIDS Program Part C EIS COVID-19 Response	
Luzerne	**RURAL HEALTH CORPORATION OF NORTHEASTERN PENNSYLVANIA**	**$1,217,636**
	FY 2020 Expanding Capacity for Coronavirus Testing (ECT)	$304,054
	Health Center Coronavirus Aid, Relief, and Economic Security (CARES) Act Funding	$845,870
	FY 2020 Coronavirus Supplemental Funding for Health Centers	$67,712
Wayne	**WAYNE MEMORIAL COMMUNITY HEALTH CENTERS**	**$1,940,294**
	FY 2020 Expanding Capacity for Coronavirus Testing (ECT)	$756,769
	Health Center Coronavirus Aid, Relief, and Economic Security (CARES) Act Funding	$1,111,145
	FY 2020 Coronavirus Supplemental Funding for Health Centers	$72,380
NEPA Region Total		**$4,293,087**

Source: HHS COVID-19 Awards.

[40] (National Association of Community Health Centers, 2020)

Nursing and Personal Care Homes

Nursing and personal care homes are also facing significant clinical and financial challenges in responding to the pandemic. While organizations may receive funding through the CARES Act, some regional leaders indicate they are losing revenue from a declining census of residents, in addition to incurring added expenses to purchase additional supplies to try and keep their residents, employees, and facilities safe and secure. The state mandated testing of all nursing home residents and staff is estimated to cost approximately $22.2 million for a one-time test, according to industry trade groups the American Health Care Association (ACHA) and the National Center of Assisted Living (NCAL).

While the trade organizations sought $10 billion in emergency relief funding, HHS is distributing $4.9 billion in relief funding to skilled nursing facilities nationwide impacted by COVID-19. Certified skilled nursing facilities with 6 or more beds are eligible to receive a fixed distribution of $50,000 plus a variable distribution of $2,500 per bed. In Pennsylvania, 587 relief fund payments totaling nearly $238 million have gone to skilled nursing facilities.[41] This is in addition to Provider Relief funds that have also been issued to support nursing homes facing increased expenses and lost revenue. At the end June, over $9.7 million in Provider Relief funds had been awarded to facilities in Lackawanna County, and over $7.5 million had been awarded to facilities in Luzerne County.[42]

The Department of Health is also pursuing partnerships with external organizations to assist with the COVID-19 response in nursing homes. Through $1 million in funding from the Department of Health, General Healthcare Resources will be deploying onsite teams to assist with infection control, staffing and PPE training needs at long-term care facilities. In addition, a plan approved by state lawmakers and signed by Gov. Wolf will provide $175 million to six regional health collaboratives that include local health systems across the state to outsource testing and infection control at long-term care facilities.[43]

Health Insurance Impact

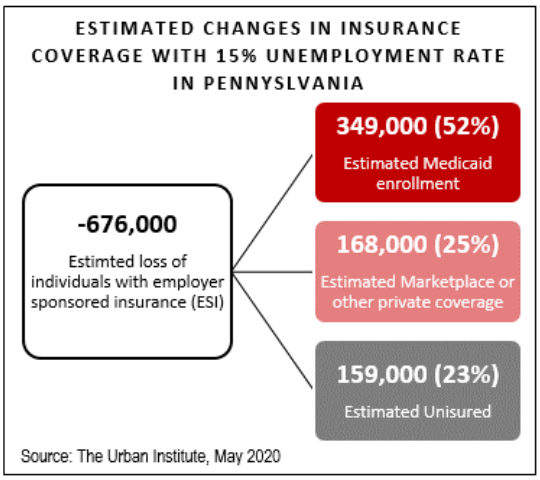
The COVID-19 pandemic is also impacting many individuals' health insurance coverage. According to the U.S. Census Bureau, 55 percent of the population nationwide had employer-based health insurance in 2018. With more than 36 million people nationwide over 2 million people in Pennsylvania submitting new unemployment claims since mid-March, people have not only lost their jobs, but many have also lost their employer-sponsored health insurance coverage.

Some of these workers and their dependents will qualify for Medicaid coverage, and others will be eligible to purchase coverage directly through the health insurance marketplaces established as a result of the Affordable Care Act. Some purchasing coverage through the marketplaces may be eligible for subsidies to offset their costs, although individuals must apply for marketplace coverage within a 60-day special enrollment period. Others who cannot replace their employer-sponsored coverage will end up uninsured.

While some job losses may be temporary, they are likely to increase uninsured rates in the near term, and also increase the number of people seeking Medicaid coverage and coverage through the Children's Health Insurance Program (CHIP) for their dependents. The statewide unemployment rate for Pennsylvania in April was 15.6 percent.[44] According to estimates by the Urban Institute, if the unemployment rate in Pennsylvania reaches 15 percent, 676,000 people could lose employer-sponsored coverage. Of these, they estimate 52 percent may be eligible for Medicaid (349,000), 25 percent (168,000) might purchase Marketplace or other private coverage, and 24 percent (159,000) may become uninsured.[45] As those seeking Medicaid and CHIP coverage increases, this will put additional pressure on state budgets that are already strained from the impact of the pandemic.

[41] (The Hospital and Healthsystem Association of Pennsylvania, 2020)
[42] (U.S. Department of Health & Human Services, 2020)
[43] (Moss & Wolman, 2020)
[44] (Bureau of Labor Statistics, 2020)
[45] (Garrett & Gangopadhyaya, 2020)

The Brookings Institute proposes a series of strategies for reaching individuals who lose employer-based coverage to transition to other coverage options, including having state unemployment insurance agencies integrate health insurance information into unemployment applications and promote more automatic enrollment.[46] While not everyone losing employer coverage will apply for unemployment insurance, there is significant overlap between those who are eligible for unemployment insurance benefits and those who might be eligible for Marketplace coverage or Medicaid. States can help with this transition by providing information regarding health insurance options and enrollment information when individuals apply for and recertify eligibility for unemployment insurance. States can also explore building an integrated unemployment and health coverage application in order to simplify enrollment.



Summary & Recommendations

The COVID-19 pandemic has significantly impacted many aspects of the health system, and highlighted shortcomings in the nation's ability to prepare for and respond to public health emergencies. The following recommendations outline potential strategies to address these gaps and prioritize the public health infrastructure.

- ***Develop a comprehensive national strategy for purchasing and distributing critical medical supplies during widespread medical crises or disease outbreaks.*** Create a more centralized and organized system for procuring materials and directing them to where they are needed most in order to address the logistical issues and competitive bidding that intensified shortages of supplies. Establish guidelines for hospitals to have an adequate amount of critical medical supplies on hand for crisis response.
- ***Make public health funding and emergency preparedness an ongoing priority, not just in crisis situations.*** Declining public health funding contributed to shortages in stockpiles of supplies, an understaffed public health workforce, and an inadequate infrastructure for the surveillance and reporting of data critical for tracking and responding to the outbreak. Increased, sustained funding and improved communication and coordination among federal and state agencies is needed to help strengthen the public health and emergency preparedness infrastructure.
- ***Strengthen the ability of the health care delivery disaster readiness workforce to scale up in response to emergencies.*** Ensure the adequacy of personal protective equipment and strengthen workplace safety standards to protect the healthcare workforce.
- ***Invest in modernizing the health information technology infrastructure and improving surveillance capabilities.*** Limitations in the health IT infrastructure made it difficult to collect and consolidate data on COVID-19 cases and testing results and develop an informed, coordinated response. As a result, communications from federal and state authorities at times included changing guidelines and contradictory messaging. Develop interoperable data systems to provide timely and accurate exchange of health information.

[46] (Young & Lee, 2020)

- ***Improve collection and tracking of demographic data to better understand how the virus is impacting minority populations and address health disparities that support this disproportionate impact.*** Inconsistent data collection and a lack of data at the local level makes it difficult to understand how the COVID-19 pandemic has impacted different demographic groups. This lack of clarity may further complicate response efforts and put more vulnerable populations at risk.

- ***Encourage health providers to adopt care delivery models that increase access to patient care through remote access and monitoring.*** Transition temporary policies that expanded telehealth coverage and provider reimbursement to long-term strategies that expand telehealth and digital capabilities to bring care to patients where they are. Provide resources to address individuals' social determinants of health in order to improve health outcomes while minimizing the burden on the health care system.

- ***Strengthen support for state and local health agencies to conduct increased testing and contact tracing activities.*** State and local health departments are required to implement testing plans and deploy contact tracing programs with limited funding and workforce support. Agencies should increase collaboration with established health providers experienced in carrying out these activities to supplement workforce shortages.

- ***Establish more robust PA Department of Health public health offices in counties or small regions to improve community outreach.*** Currently, there are six county and four municipal health departments in PA. PA's public health agency staffing per resident declined 17 percent and expenditures per resident decline 10 percent from 2010 to 2019. Re-establishing a more robust presence can allow public health offices to offer more and consistent services in the regions they serve. Equity, consistency, collaboration, and data sharing are integral components of a statewide public health system.

- ***Ensure adequate resources are in place to address the critical situation in nursing homes and other long-term care facilities.*** Ensure accuracy and transparency in reporting of infections and deaths at facilities. Prioritize the distribution of personal protective equipment and testing supplies, and deploy staff to conduct testing to facilities most in need. Explore infection control strategies including alternate ways of congregating residents to prevent and limit disease outbreaks.

- ***Explore strategies for reaching individuals who lose employer-based coverage to transition to other options in order to reduce gaps in health coverage.*** The surge in unemployment is likely to increase the uninsured rate and expand the need for public health insurance as workers lose employer-sponsored health coverage. Potential strategies include having state unemployment insurance agencies integrate health insurance information into unemployment applications to promote more automatic enrollment into public or private coverage options based on eligibility.

- ***Strengthen funding for health care providers, including hospitals, community health centers, and nursing homes and long-term care centers, which have faced significant clinical and financial challenges in responding to the pandemic.*** There are many competing priorities for federal and state funding given the current situation. Protecting the health and well-being of individuals should be of primary importance, and mechanisms should be in place to ensure funds are allocated and used with this goal in mind. Provide support to hospitals hardest hit by the pandemic to ensure they can continue serving the needs of their community. Strengthen funding for community health centers to support their role in providing care to underserved populations. Provide support to nursing home and long-term care facilities to ensure they are adequately prepared to prevent or limit outbreaks and protect their vulnerable residents. These are all critical needs that need to be addressed as federal and state agencies reexamine budgets and assess funding options.

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