IMPACT OF COVID-19 ON LONG-TERM CARE IN MICHIGAN

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STATE LONG-TERM CARE SETTING

Michigan is located in the upper Midwest United States and surrounded by the Great Lakes. The largest city is Detroit, but large parts of northern Michigan (Upper Peninsula) are rural and sparsely populated. Michigan has a population of nearly 10 million with approximately 17% aged 65 or older. Poverty rates in the elderly and the percent of the population residing in a nursing facility in Michigan are similar to the national averages, with approximately 9% of adults aged 65+ living in poverty and 0.4% of the population residing in nursing facilities. Michigan has 442 nursing facilities, the majority of which are for-profit (71%), certified for Medicare and Medicaid (98%), and non-hospital-based (95%). By Fiscal Year 2018, nearly 12% of Michigan’s total Medicaid spending was dedicated to fee-for-service long-term care provided in nursing facilities. Characteristics of nursing facility residents in Michigan are similar to national averages with nearly 43% aged 85 or older, 68% female, 17% Black, 82% white, 60% with Medicaid as the primary payer, and 17% with Medicare as the primary payer (see Figure 1).

The delivery of long-term care in the United States is fragmented and largely financed by Medicaid, a means-tested public health insurance program jointly funded by states and the federal government. In Michigan, eligible individuals may receive five different types of care through Medicaid long-term services and supports (MLTSS): home health care (54% of enrollees), nursing facilities (29% of enrollees), MI Choice (12% of enrollees), MI Health Link (3% of enrollees) and Programs of All-Inclusive Care for the Elderly (2% of enrollees). For individuals enrolled in Medicaid LTSS and also requiring nursing facility level of care, the majority receive support in an institutional setting, with approximately 33% remaining in the community to receive services.

STATE COVID-19 OUTBREAK AND POPULATION LEVEL MEASURES

Similar to the majority of states, the COVID-19 outbreak in Michigan began in mid-March. On March 10, 2020, Michigan had its first two confirmed cases of COVID-19. Within a week, the governor closed schools,
expanded unemployment benefits, banned mass gatherings, and enacted Executive Order 2020-8 to prohibit price gauging (see Figure 2).7,8 Within two weeks of the initial cases, Michigan had over 1,300 COVID-19 cases, 15 COVID-19 deaths, and a governor-issued statewide stay-at-home order.8 As of June 26, Michigan had a total of 68,944 probable or confirmed cases (see Figure 3A).9 The number of daily new cases peaked in early April 2020 (see Figure 3B).8,9

Michigan designated 21 nursing facilities as COVID-19 regional hubs to care for individuals who have been discharged from the hospital due to COVID-19 but require additional medical care or support.10 Regional hubs occur across the state, but are concentrated in the southern region which experienced higher rates of infection and demand was the greatest. As of July 7th, all 442 nursing facilities, regardless of regional hub status, had infection control surveys completed by the Michigan Department of Licensing and Regulatory Affairs (e.g., ensuring adequate isolation protocols are in place). Compared to other nursing facilities in the state, on average, the regional hubs are slightly larger facilities with lower occupancy. Regional hubs have an average of 134 certified beds with approximately 64% occupancy while other nursing facilities in the state have an average of 102 beds with 74% occupancy.11

**Regional hub nursing facilities.** The purpose of regional hubs was to have designated facilities isolate COVID-19 positive patients from other residents. Regional hubs provide care to (1) COVID-19 patients discharged from a hospital but still requiring medical care and (2) COVID-19 patients from other nursing facilities. Beginning in April 2020, nursing facilities had to request designation as a regional hub and receive approval by the Michigan Department of Health and Human Services (MDHHS). To receive approval by MHDHS as a regional hub, a nursing facility must have the capacity to reserve beds for COVID-19 affected transfers while maintaining proper staffing levels and isolating COVID-19 positive patients from other residents. Moreover, facilities designated as regional hubs must have demonstrated the ability to mitigate the spread of the disease.

Regional hub nursing facilities have lower overall star ratings. Despite the desire to form the regional hubs out of high-quality nursing facilities, prior to COVID-19, on average, facilities designed as regional hubs had indicators of worse quality of care.
compared to nursing facilities not designated as regional hubs. Nursing Home Compare provides consumers with an overall rating of nursing facilities, health inspection ratings, quality of resident care ratings, and staffing ratings (where 1 is the worst and 5 is the best). Notably, facilities designated as a Special Focus Facility (SFF) due to persistent poor quality of care do not receive overall, health inspection, quality of resident care or staffing ratings. Two facilities (one a regional hub and one a non-regional hub) in Michigan are designated as SFFs. As of July 2020, CMS released an updated SFF status report in which the nursing facility designated as a regional hub and SFF is noted as having “significant improvements”. Prior to the pandemic, 71% of regional hubs had an overall rating of 3 or less compared to 45% of non-regional hubs with a rating of 3 or less (see Figure 4). A higher percent of regional hubs had health inspection ratings of 3 or less compared to non-regional hubs (76% versus 68%) (see Figure 5). Similarly, 67% of regional hubs had a staffing rating of 3 or less compared to 41% of non-regional hubs (see Figure 6). Finally, 24% of regional hubs had a quality rating of 3 or less compared to 27% of non-regional hubs (see Figure 7).

Nursing Home Compare also provides documentation about health deficiencies cited in past inspections. The average number of health citations in Michigan nursing facilities is higher than the average across the United States (13.5 compared to 8.2). As listed on the Nursing Home Compare website, the average number of health citations for nursing facilities designated as regional hubs is 17 with a range of 3 to 34 health deficiency citations. Of the 21 regional hubs, 76% were cited for environmental deficiencies in failure to “provide and implement an infection prevention and control program” in 2019 and/or 2020. Of those with the deficiency cited, 19% were previously cited for the same deficiency within the year. Moreover, two of the regional hubs have been cited for abuse. A disproportionately high percent of deaths occurred in nursing facilities. As of June 26, 2020, Michigan confirmed 6,115 deaths due to COVID-19 with 69% occurring in individuals aged 70 or older. As of June 26th, Michigan ranks 18th in highest number of cases per 100,000 and 8th in highest number of deaths due to COVID-19 in the United States. While cases of COVID-19 emerged in Michigan in early spring like much of the United States, the penetration of COVID-19 varies dramatically across the state with some rural areas, such as Alger County (located in the Upper Peninsula) experience 33 cases per 100,000 while metropolitan areas such as Wayne County (which includes downtown Detroit) experience 1,286 cases per 100,000. Of cases in Michigan, approximately 12% of cases occurred in residents at nursing facilities and approximately 5% occurred in staff at nursing facilities. Most COVID-19 cases occurred in non-regional hubs. Of cumulative cases to date in nursing facilities, 90% occurred in nursing facilities that were not regional hubs and only 10% of cases occurred in regional hubs. As of June 26, 2020, 36% of all COVID-19 deaths in Michigan occurred in nursing facilities. For context, approximately 40% of all COVID-19 deaths in the United States occurred in nursing facilities. Of cumulative COVID-19 deaths occurring in nursing facilities, nearly 90% occurred in nursing facilities that
were not regional hubs and 10% occurred in regional hubs. However, of resident COVID-19 cases in regional hubs, 29% resulted in deaths. Similarly, of resident COVID-19 cases in non-regional hubs, 28% resulted in deaths thus far. While Michigan DHHS required reporting cases and deaths from nursing facilities early in the pandemic (see Figure 2), self-reported statistics may include errors as facilities improve reporting procedures over time. Data may also be corrected over time.

**RISK MITIGATION STRATEGIES**

**Lack of widespread testing.** Beginning March 16, 2020, staff at nursing facilities are required to be screened prior to each shift in accordance with the Governor’s Executive Order 2020-06. However, enforcement of COVID-10 testing of nursing facility residents and staff has been inconsistent. In mid-April, nearly 2,000 nursing facility residents (approximately 5%) were tested for COVID-19. Yet subsequent testing frequency and breadth is unknown. While not all facilities currently have on-site testing, state documentation highlights planning efforts to increase on-site testing. After a positive COVID-19 test, remote contact tracing occurs. The COVID-19 Infection Prevention Resource and Assessment Team (COVID iPRAT) is an inter-agency team incorporating local and state officials supporting long-term care facilities to prevent and contain COVID-19 by providing technical assistance, education and trainings.

On June 15th, Governor Whitmer issued Executive Order 2020-123 which mandated comprehensive testing for residents and staff in long-term care facilities with the support of the Michigan National Guard.

**Shortages of Personal Protective Equipment (PPE).** With hospitals, nursing facilities, and other health care providers competing for scarce resources and universal use of PPE required in nursing facilities and assisted living facilities, shortages of testing supplies and PPE have occurred. While the Federal Emergency Management Agency (FEMA), distributed PPE to nursing facilities in May and at the beginning of June, news reports have called into question the quality of PPE distributed by the federal government. According to data from the Centers for Medicare & Medicaid Services (CMS), as of June 14, 2020, at least 90% of nursing facilities had, at minimum, a one-week supply of surgical masks, gloves, eye protection, and hand sanitizer. However, only 84% of facilities had a one-week supply of N95 masks and 87% of facilities had at least one-week supply of gowns. As for the supply of PPE by regional hub status, only 78% of regional hubs had a one-week supply of N95 masks, compared to 85% of nursing facilities that are not designated regional hubs. Also, 89% of regional hubs had a one-week supply of gowns and 89% had a one-week supply of hand sanitizer, compared to 87% of non-regional hubs with a one-week supply of gowns and 95% of non-regional hubs with a one-week supply of hand sanitizer. However, these statistics may not represent access to personal protective equipment (PPE) that could pass infection control inspection. Michigan has relied upon the national stockpile, donations, and existing supply chains to acquire PPE.

**Delivery of care changed to mitigate COVID-19 spread.** Telemedicine expansion, infection prevention and control assistance, and regional hub designation policies changed delivery of care at nursing facilities. First, prior to the expansion of telemedicine for Medicare beneficiaries, Governor Whitmer announced telemedicine expansion for Medicaid beneficiaries beginning March 12th. Simultaneously, private insurers such as Blue Cross Blue Shield of Michigan (the largest private health insurer), Blue Care Network of Michigan, Priority Health, Meridian, CVS Health, McLaren and Health Alliance Plan extended coverage

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**EXECUTIVE ORDER 2020-123**

- Initial testing of all residents and staff.
- Testing of all new or returning residents during intake unless tested within 72 hours of intake.
- Testing of any resident or staff member with symptoms or suspected exposure.
- Weekly testing of all previously negative residents and staff in facilities with any positive cases among residents or staff, until 14 days after the last new positive result.
- Weekly testing of all staff in regions of medium or higher risk on the MI Safe Start Map.
- Testing of all staff in Regions 1 through 5 and 7 at least once between the date of this order and July 3, 2020.
- Nursing facilities are required to submit plans for testing by June 22 and to implement those plans by June 29.
of telemedicine. The expansion of telemedicine coverage in the public and private health insurance markets reduces some, but not all, barriers to accessing telemedicine. Second, COVID Infection Prevention Resource and Assessment teams (iPRAT) are currently providing remote assistance to over 300 nursing facilities in Michigan regarding appropriate use of PPE and infection prevention and control. These supports for direct care workers are intended to improve the safety of patients and workers. Third, Michigan did not require nursing facilities to admit COVID-19 patients. Instead, some nursing facilities were designated as regional hubs to provide care to COVID-19 patients, as described above.

Facility self-reported staffing challenges. Nursing facilities self-reported nurse staffing shortages are more pronounced in facilities designated as regional hubs compared to facilities not designated as regional hubs (44% to 14% respectively for June 7-14, 2020).11 Eleven percent of the regional hubs reported clinical staff shortages and 50% reported shortage of aides.11 In comparison, only 2.5% of non-regional hubs reported clinical staff shortages and 20% reported shortage of aides.11 However, the criteria of what constitutes a staffing shortage is ambiguous. For example, it is unclear if a self-reported shortage indicates inability to maintain (1) staff-to-patient ratios as required by law or (2) only staff-to-patient ratios pre-COVID-19. Additionally, facility level reports of staffing shortages do not distinguish staffing shortages for COVID-19 patients versus non-COVID-19 patients. CMS Nursing Home Compare provides facilities staffing ratings (where 1 is the worst and 5 is the best) based on registered nurse hours per resident per day and total nursing staff. When examining staff ratings of facilities in the most recent inspection prior to March 2020, we find regional hub nursing facilities had, on average, a lower staff rating compared to non-regional hubs, 3.0 (range 1-4) compared to 3.6 (range 1-5) respectively.12 Because regional hub facilities had worse staff ratings prior to COVID-19, the ongoing public health emergency could further stress these facilities without additional staffing support.

Long Term Care (LTC) facility worker policies to increase workforce. Because LTC workers may work in multiple facilities, be non-unionized, earn low wages, and have a potentially high risk of exposure, labor laws and leave policies have significant implications for the risk of spreading COVID-19 by facility workers. Michigan is one of three states in the United States with a paid time-off law, that is, employers are required to offer some paid time to sick employees or employees caring for sick family members.20 Through Executive Order 2020-36, Governor Whitmer expanded the existing policy such “that an employer shall not discharge, discipline, or otherwise retaliate against an employee for staying home when he or she is at particular risk of infecting others with COVID-19.” Notably, to be compliant with the executive order, employers may “debit the time off from employee’s accrued leave banks”.21 Paid sick leave policies are critical to reduce spread of COVID-19 by allowing sick employees, or those with a sick household member, to shelter-in-place while maintaining an income.

Prior to the COVID-19 pandemic, the Michigan state Commission on Services to the Aging focused on initiatives addressing (1) direct care workforce development and (2) elder abuse and exploitation prevention. Despite the increased demand for direct care workers even prior to COVID-19, as of May 2019, the mean hourly wage for a nursing assistant in Michigan was $15.01.22 To date, direct care workers in Michigan are allowed to work at multiple nursing facilities. For services provided between April 2020 and June 2020, a press release by the Governor announced direct care workers would receive a temporary $2 per hour pay raise if providing care in Medicaid funded in-home behavior health and long-term care services.23 On July 1, 2020, Governor Whitmer signed Senate Bill 690 which included a provision for the $2 per hour increase for direct workers to be extended through September 30, 2020 as a one-time appropriation from federal funds. From April through July 2020, only direct care workers employed by DHHS, DHHS contractors, or DHHS sub-contractors were eligible. From July 1st through September 2020, registered nurses, licensed practical nurses, competency-evaluated nursing assistants or respiratory therapists employed by skilled nursing facilities are defined as direct care workers who are also eligible for the hazard pay. Additionally, in response to the pandemic, the state’s 1135 Emergency Medicaid waiver also included modifications to provider enrollment, such as waiving the criminal background
checks associated with temporarily enrolling providers. Increasing wages and waiving criminal background checks are policies to increase the supply of direct care workers which may also have unintended consequences, e.g., increased potential for abuse.

**Nursing facilities reduced resident group activities and limited visitations.** To limit the spread of COVID-19 in nursing facilities, Executive Order 2020-6 first prohibited visitation to nursing facilities and assisted living facilities, barring end-of-life exceptions beginning on March 14th. The restriction on visitation expired June 24th. Currently, visitation is allowed for residents “in serious or critical condition or in hospice care”. Visitors who provide aid with activities of daily living (e.g., eating or dressing) are also allowed. As of June 15th, Executive Order 2020-123 canceled all communal dining and all internal and external group activities of residents. These policies are aligned with Centers for Disease and Control recommendations but may also result in the social isolation of residents. Using Civil Monetary Penalty funds, MDHHS established the Nursing Facility Enrichment Program which was updated June 29, 2020 “to provide nursing facilities with electronic devices to assure that residents can communicate with family and friends”.

**FINANCIAL SHOCKS AND STRATEGIES FOR RESILIENCE / REPORTING**

**Financing changes.** Nursing facilities have experienced both occupancy and reimbursement policy changes during the COVID-19 pandemic. First, beginning in mid-April, nursing facilities operating at less than 80% capacity were required to dedicate isolated COVID-only units. However, this requirement was excluded from subsequent Executive Orders. It is ambiguous to what degree it was enforced. Second, nursing facilities designated as regional hubs receive $5,000 per dedicated bed and an additional $200 per occupied bed per day.24 To place this in context, standard reimbursement per occupied bed per day is approximately $200-$250. Second, through the 1135 Medicaid emergency waiver, the state also increased the number of nursing facility bed holds or therapeutic leave days. Through a State-Insurer agreement, the cost-sharing for COVID-19 treatment is waived for state-regulated private plans.25 Moreover, most insurance companies in Michigan agreed to also waive cost-sharing for COVID-19 testing and treatment.26 Finally, in addition to the PPE received from FEMA, nationwide each nursing facility is set to receive payments from the Skilled Nursing Facilities (SNF) Relief Fund Payment with Michigan nursing facilities receiving a total of $113,775,000 as of May 2nd.

**Transparency.** Currently, all but one nursing facility in Michigan are reporting COVID-19 cases and deaths to CMS and to the state. Regional hubs are required to report cases and deaths daily. Data collection began on April 23rd and is now aligned with CDC/CMS requirements as of May 22nd. However, to date, no data has been collected in assisted-living facilities in Michigan. Currently no official number of assisted living centers exists as they are unlicensed facilities.

**CHANGES, NEEDS, AND CALLS FOR ACTION**

Increase access to testing and personal protective equipment. Like most states, expanding testing capabilities and obtaining adequate PPE are ongoing issues in Michigan. Additionally, maintaining adequate staffing is critical. These critical issues have been widely reported and legislation is ongoing. For example, on June 15th, Governor Whitmer issued Executive Order 2020-123 to address staffing shortages. Using state funds, the MDHHS is piloting a Rapid Response Staffing program to assist facilities demonstrating shortages. The pilot program will use a vendor management system to connect nursing facilities with local staffing companies. By Executive Order 2020-123, the State will also provide short-term emergency staffing for immediate crises and longer-term staffing support for facilities experiencing staffing shortages.

**The designation of nursing facilities as regional hubs remains controversial.** Similar to Michigan, New York, Washington, and California allowed nursing facilities to admit recovering COVID-19 patients discharged from the hospital. Organizations such as the American Health Care Association, Society for
Post-Acute and Long-Term Care Medicine, and the California Association of Long Term Care Medicine reported concerns about the implications on the safety of existing residents.\textsuperscript{27} Similarly, researchers have proposed investing in hospital-at-home models and alternative settings, such as COVID-19 only facilities.\textsuperscript{28,29} On June 3\textsuperscript{rd}, the Michigan Senate introduced legislation to prohibit admitting COVID-19-positive patients to nursing facilities and, instead, develop centralized intake facilities.

**Limited data.** Lack of data made it difficult to assess the regional hub policy effects. For example, lack of documentation regarding the initial assessment and ongoing monitoring of eligibility criteria for regional hubs and when payments began for each regional hub and are critical limitations to describing and analyzing the effects of regional hubs on patient safety, spread of COVID-19 and mortality. Additionally, no data for COVID-19 cases and deaths in nursing facilities by race are currently publicly available. Collectively, these data limitations preclude assessment of the average effect of the policy and heterogenous effects of the policy by race.
References

4. The Kaiser Family Foundation State Health Facts. Data Source: Urban Institute estimates based on data from CMS (Form 64), as of August 2019. In.
22. PHI. Workforce Data Center. In.

