Executive Summary & Recommendations

submitted to the Minister of Health and Wellness by the Northwood Quality-improvement Review Committee

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Executive Summary

Northwood represents the largest COVID-19 outbreak in Nova Scotia. Between April 5 – May 26, 2020 a total of 246 residents and 114 staff tested positive, and 53 residents died. During this time, a comprehensive effort involving teams from across the health and social care system worked to mitigate the effects of the outbreak. Operating within a complex and rapidly evolving environment, there are numerous examples of staff dedication to resident safety and care. Northwood delivered excellent care to its residents and had a pandemic plan in place that was consistent with other long-term care homes. Staff worked diligently to address the outbreak and many residents reported high levels of satisfaction with their care.

This report focuses on quality-improvement and has been informed by consultations with more than 350 stakeholders including residents and their families, staff members, healthcare practitioners and leaders involved in the response to the outbreak. To help Northwood and other long-term care facilities better prepare for possible future waves of COVID-19, this Review has identified key drivers for the outbreak and recommendations for the future.

While there were multiple interconnected drivers, the key factors that contributed to the outbreak involved:

- Staffing challenges including shortages for direct care and housekeeping staff
- Community transmission that may have increased staff exposure to the virus
- Structural challenges including space constraints, shared rooms and bathrooms, as well as a limited ability to control temperature, humidity, and air flow turnover
- Barriers to enhanced room and floor cleaning and inconsistent cleaning techniques

It is important to note that significant adaptations were made to operating practices given that the legislation, policies, rules, and plans were not designed for an outbreak of the size and scale experienced by Northwood (in the context of a global pandemic).

This report has 17 recommendations for Northwood, the Department of Health and Wellness (DHW) and government as a whole. The recommendations, summarized below, are poised to be acted upon in short (less than 3 months) and long term (greater scope and expected to require longer than 3 months) time horizons.

In order to strengthen the capacity to respond to a potential future outbreak, Northwood should consider the following actions:

- Immediately review and update the pandemic action plan to ensure the ability to operationalize it
- Housekeeping should be considered a critical support service and staffed at appropriate levels during outbreak scenarios
- Create an emergency communication system with transparency to stakeholders and specificity about the information that will be disseminated
- Maintain safety and attenuate appropriate controls in outbreak-free operation during the pandemic

- Practice prevention within the constraint of the facility architecture (such that quality of life of the population served is not unduly effaced)

To better support and enhance the capacity of the long-term care (LTC) sector the Department of Health and Wellness should consider the following actions:

- Continue to bolster Personal Protective Equipment (PPE) supply to non-acute care facilities, recognizing that government oversight and provincially administered plans for PPE are required to ensure equitable and reliable distribution, which was effective during the first wave of the pandemic
- Maintain the unified supply chain for staffing and redeployment for future outbreaks, with standard definitions for LTC facilities to adhere to as an early warning system for impending shortages
- Establish a mobile Infection Prevention and Control (IPAC) clinical resource for potential deployments at LTC facilities when there are threats of outbreaks. Over time, the IPAC resource should collect and accrue site-level knowledge of every LTC facility and their operating teams and stakeholders to enhance future responses
- Immediately restructure and ensure the readiness of disaster response teams, with clear and defined roles and responsible leadership. Set conditions for over-riding mandates that supersede obstructive policies or guidelines represented in the various acts for long-term care homes as they might pertain to normal operation
- Increase support for regional and provincial level Medical Officers of Health to enhance communicable disease tracking and analytic modelling capability
- Mandate the collection, reporting and analysis of morbidity and mortality data by LTC site, with implementation of the International Resident Assessment Instrument for Long Term Care Facilities (interRAI LTCF), frailty index and prospective intra-provincial and interprovincial comparisons through the Canadian Institute Health Information (CIHI)
- Improve geriatric and other medical care of the elderly within facilities and institute the principles and fundamental care access features of Care by Design for all facilities
- Set and fund standard minimum care hours based on resident complexity across all facilities. Increase care hours to include previously evidenced levels

The Government of Nova Scotia should consider the following actions to strengthen system capacity:

- Mandate province-wide healthcare system response for pandemics. This includes ensuring that mandated pandemic plans can be reasonably operationalized at a facility level and considers staffing and enhanced requirements for housekeeping
- Clarify the roles and responsibilities of Department of Health and Wellness and Nova Scotia Health through an improved organizational structure
- Update all relevant legislation encompassing the LTC sector
- Develop and implement a robust human resources plan for the LTC sector

Additional detail and supporting evidence for the findings and recommendations are described throughout this report.

Recommendations

The following recommendations are organized based on level of intervention (facility-level, governance and organization-level, and legislation / provincial-level). Included is a general execution speed that is reasonably needed and attainable. Short-term indicates three months or less, and long-term indicates more than three months.

Facility-Level: Northwood

1 | **Immediately review and update the pandemic action plan to ensure the ability to operationalize it** (Short-term)

The facility should have a plan in place to respond to several scenarios ranging from a small number of cases concentrated in a small number of locations to multiple cases in multiple locations. The plan should use accessible terms with clearly defined actions for limiting the spread that takes into account resident and staff movement, and have clear operational requirements identified in advance. The Committee recommends that critical staff loss numbers be a priority for surveillance and an early set point be defined at which to contact DHW for initiation of staffing supports. Given the current care ratios, this loss percentage should be set as a relatively low number, such that impending staff loses are appreciated and actioned upon early. Specific site data should be considered to decide the actual staffing loss number. These need to be relative to the site and tied to real care metrics. The number should be standardized and incorporated into an action plan.

2 | **Housekeeping should be considered a critical support service and should be staffed at appropriate levels during outbreak scenarios** (Short-term)

A significant factor in outbreak response is controlling site-level systems such as waste management. These requirements include enhanced cleaning, PPE delivery from stores, used PPE and detritus removal, and the service's own proper adherence to IPAC protocols. Although staff loss was recovered in the housekeeping department, it was not bolstered to meet the increased demands arising from the outbreak which requires more staff than baseline operation due to factors such as increased garbage, frequency and type of cleaning techniques.

3 | **Create an emergency communication system with transparency to stakeholders and specificity about the information that will be disseminated** (Short-term)

A communication plan should be developed such that residents and their families will know what information, how often, and by what route it will be provided in the event of an outbreak that causes restricted visitation. The published plan should include reference to information that cannot be disseminated due to privacy and confidentiality restrictions and also be viable in the event of staff loss due to an outbreak.

Staff, media, unions and health organizations should be contemplated in the published communications plan. Specific information requirements and roles and responsibilities should be defined in advance to facilitate the implementation of the plan.

4 | **Maintain safety and attenuate appropriate controls in outbreak-free operation during the pandemic** (Short-term)

The values and goals for quality of life that resonate as part of Northwood's operations prior to the pandemic should continue to be a priority. Steps should be taken be make reasonable easements on the severity of the infection control responses such that residents can still reasonably mobilize, leave the facility with family, and have visitors safely and without interfering with operational requirements created by a pandemic. Acceptance of personal items and foodstuffs from family should not be prevented or delayed.

5 | **Practice prevention within the constraint of the facility architecture** (Short and long-term actions)

Northwood is the largest and most complex LTC facility in the province. This rendered it especially susceptible to staff loss and infection spread in the COVID-19 pandemic. The room sizes cannot be changed easily or quickly. As a result, the following actions should be undertaken:

- Occupancy is recommended to be reduced on a permanent basis to reduce resident population density
- Additional empty space should be set aside to maximize the ability to distance and cohort infected persons should future outbreaks occur
- Group rooms need consideration for reduced occupancy given the physical space limitation that exists. As there is significant variability in room sizes and resident characteristics across the province, this is not a generalizable recommendation. Complex additional systemic factors such as overall LTC capacity and potential barriers to care need to be taken into account in the implementation of this recommendation (see recommendation #15)
- An IPAC plan with consideration of shared bathrooms as a key area of concern should be developed, with implementation of safety features that prevent resident wandering and simultaneous bathroom occupancy. As part of this plan, ventilation in bathrooms should be modified to improve air turnover and Northwood should immediately consult for and pursue any possible site engineering improvements that would allow control of air turnover and humidity
- Cessation of smoking-room operation is recommended (see legislative recommendations for further detail)

Health Organizational Level: Department of Health and Wellness

6 | **Continue and bolster PPE supply to non-acute care facilities** (Short-term)

Government oversight and provincially administered plans for PPE are required to ensure equitable and reliable distribution. Although Northwood had adequate PPE supply, it had to originally seek and supply the equipment itself. This is an unacceptable risk for the larger and more complex facilities in the province. The province should continue to manage procurement, which was accomplished by the provincial campaign.

7 | **Maintain the unified supply chain for staffing and redeployment for future outbreaks, with standard definitions for LTC facilities to adhere to as an early warning system** (Short-term)

Large shifts in the working population occur during pandemics and may not be predictable. At present, the strains of staff supply are now appreciated and are being addressed (e.g., partial re-opening of daycares / schools allow for better access for care staff otherwise unable to work; universal masking simplifies contact tracing and decreases staff loss). However, future events may further disrupt local human resources supply chains.

Among OECD countries, those that prepared LTC surge staffing plans and provided LTC hazard pay had better outcomes for LTC-associated mortality (OECD, 2020). This would help ensure that critical staff feel valued and strengthen retention during an outbreak. These plans should be rapidly developed and should build upon the extensive experience with emergency plan development that occurred during the Northwood outbreak.

Standardized facility case infection numbers and staff loss levels need to be known by DHW for each facility, with a clear plan for all sites to communicate with DHW for execution and implementation of assistance for both staffing and IPAC support (see IPAC recommendations for further details).

8 | **Establish a mobile IPAC clinical resource for potential deployments at LTC facilities when there are threats of outbreaks** (Short-term)

DHW does not currently have a clinical IPAC team and has not had responsibility for IPAC specialized oversight since 2016. The ICPs deployed from NSH were crucial in helping to control the outbreak and to improve adherence and appropriate use of PPE, as well as routine hand hygiene measures and audits, housekeeping and cleaning, and in helping to make decisions on cohorting, contact tracing, etc.

IPAC is a primarily clinical specialty and is crucial in both baseline facility operation as well as in effective response to outbreaks. It is not feasible for every facility to train and employ a dedicated ICP given the variation in facility size and capacity. The requirement for a dedicated ICP within a facility will be further influenced based on bed capacity and

facility structure. Therefore, it is recommended that NSH be funded and designated to include direct oversight of IPAC in the LTC sector. The deployable workforce will be available in the case of outbreaks and would interface with Public Health closely during these times.

Additionally, it is recommended that the IPAC team proactively visit and directly collaborate with staff and administration of each facility to establish a repository of architectural, site engineering, and IPAC practice knowledge so that site-specific strengths and weaknesses are defined in advance of an outbreak. This would allow a greater degree of operational control and planning during an outbreak.

Note: There is an ongoing Quality-Improvement Review occurring focused solely on provincial IPAC planning and response.

9 | **Immediately restructure and ensure the readiness of disaster response teams, with clear and defined roles, as overriding mandates that supersede obstructive policies or guidelines represented in the various legislative acts for LTC** (Short-term)

The overwhelming responses from the outbreak were supportive in the help deployed but clearly indicated that the numerous advisory committees, response teams and groups represented by NSH and DHW were confusing and created redundant communications and inquiry pathways for real-time challenges being faced in managing the outbreak. These challenges were noted to be present prior to the outbreak as well.

It is recommended that DHW adjust its role to a stewardship rather than clinical decision-making role at present until a full restructure and simplification of the governance structure can be achieved. NSH currently contains most of the operational and emergency response expertise and capability, as well all IPAC expertise. Appropriate funding and clear expansion of responsibility to consider the LTC sector as part of a whole pandemic plan and response is needed. DHW as quality assurance, licensor, and funder would be better positioned to make emergency changes to allow for more rapid responses.

Arms of healthcare such as Public Health and Continuing Care, which are represented under both NSH and DHW should have governance structure clarified as a long-term goal.

10 | **Increase support for regional and provincial level Medical Officers of Health to enhance communicable disease tracking and analytic modelling capability** (Short-term)

Public Health is an essential part of the response to a pandemic and works closely with Occupational Health and Infection Prevention and Control teams. During the outbreak there was a lack of available Public Health capacity to support Northwood and the rest of the province. DHW should ensure Public Health is effectively resourced to support an outbreak situation. This includes the capacity to respond to requests, conduct contact tracing, deliver education and promote effective responses based on high quality data

and information.

11 | **Mandate the collection, reporting and analysis of morbidity and mortality data by LTC site, with implementation of the International Resident Assessment Instrument for Long Term Care Facilities (interRAI system), frailty index and prospective intra-provincial and interprovincial comparisons through the Canadian Institute Health Information (CIHI)** (Long-term)

Funding is not currently standardized across all LTCFs in the province. There is a great and urgent need for meaningful data regarding residents' journey through LTC as they progress to end-of-life care. DHW cannot effectively respond to specific site needs or issues unless comparative metrics are collected. It is recommended that morbidity and mortality data be made mandatory reporting criteria. The interRAI system has recently been implemented to assess morbidity and function (for care needs assessment) at the time of admission but is not captured as a resident's status changes over time.

12 | **Improve geriatric and other medical care of the elderly within facilities and institute the principles and fundamental care access features of Care by Design for all facilities** (Long-term)

Northwood demonstrated ability to clarify and monitor care needs through its participation in Care by Design, which allowed enhanced access to geriatric care. Additional medical care was also provided by nurse practitioner support to bolster the site physician. This resulted in the ability to set goals of care and care expectations as well as render good goal-directed clinical care on-site, decreased transfers to other facilities and therefore potentially reduced the risk of spread of infection.

It is recommended that such types of specialized care and direct care presence be expanded to encompass all LTCFs in Nova Scotia. Specifically, offering specialized access to Geriatrics and elderly-focused care without requiring formal consultations by site physicians provides a universal standard of care that guarantees focus and attention is paid to goals of care. This is lacking at other facilities and represents a critical long-term goal for healthcare delivery in the province.

13 | **Set and fund standard minimum care hours based on resident complexity across all facilities. Increase care hours to include previously evidenced levels** (Long-term)

There is clear evidence that setting minimum care hours can improve quality of care in the LTC sector (Ontario Ministry of LTC, 2020 and Canadian Federation of Nurses Unions, 2015). Bolstering RN and LPN support within these care ratios not only helps to strengthen the quality of direct care and higher level functions such as team management, ongoing education and teaching, it can also be a stable source of knowledge within the direct care structure (which is an important practical solution with a workforce that experiences high turnover in the CCA contingent). Previously published guidance and summaries such as *Broken Homes* presented by the Nova Scotia Nursing

Union, and various high-level reviews, are increasingly relevant now as both the province and the country reassess the LTC sector (Curry, 2015).

It is recommended that strong consideration for ratification and implementation of minimum care hours with stratification across meaningful designations of resident frailty, function, or care needs be committed to. In addition to establishing minimum care hours and associated funding LTCFs should report, by facility, how they are achieving the care hours. This would help to avoid unintended consequences, such as diverting funds to lower cost roles like housekeeping or care aids at the expense of higher cost RN or LPN roles.

Provincial and Legislative Level

14 | Mandate province-wide healthcare system response for pandemics (Short-term)

The LTC sector is highly fragmented and the pandemic planning process reflects this fragmentation. As a result, there is limited visibility across LTC homes and a lack of integration between acute and continuing care entities in strategies and tactics for responding to a pandemic. The province should ensure that there is greater integration and visibility to ensure a more efficient response and stress-test the overall capacity of the system to respond. This should include ensuring that mandated pandemic plans can be reasonably operationalized at a facility level and considers staffing and enhanced requirements for housekeeping. This is particularly important given the expectation that staffing shortages will be addressed by staff from other LTC homes or from the acute sector.

15 | Clarify the roles and responsibilities of DHW and NSH through an improved organizational structure (Short-term and long-term)

Although the Committee cannot provide specific advice for this high-level recommendation, it is recommended that the structure simplification provide clear roles that reduce redundancy of leadership and clarity in guidelines. Clear responsibilities (i.e., funder, care delivery, operations) and communication pathways both in normal care delivery as well as during pandemic or emergency situations can be expected to reduce delays, improve transparency and consistency, and improve effectiveness. Clear delineation of NSH and DHW roles are expected to improve broad oversight of the healthcare system, care delivery and safety, and equity.

In preparation of possible future outbreaks associated with second wave COVID-19 activity, a pre-determined deployable operation team with expertise in IPAC, emergency staffing management and training, and inter-professional and media communications are recommended. Clear leadership and deliverables should be set in advance. Activation of such a team should rely on pre-set facility infectious case numbers as well as staff loss amounts. Ideally LTCFs would be mandated to prospectively survey and report such

metrics. Facilities should also have an additional requirement to analyze and determine specific critical staffing levels at which care delivery is compromised (and consider both direct care and environmental and housekeeping), with consideration of such a loss on the ability to operationalize their pandemic (or emergency response) plan.

The recent *Restoring Trust* Policy Briefing by the Working Group on Long-Term Care (Estabrooks et al, 2020) cites similar recommendations that the Committee would like to put forward for consideration. This report found that there is a need for securing robust and sustainable funding and strong governance for the LTC sector. It recommends that a mechanism for supporting provincial governments to achieve high standards in LTC across Canada could be achieved through a similar framework to the *Canada Health Act*, where core standards are articulated and provincial governments that meet those standards receive additional federal transfers.

16 | **Update all relevant legislation encompassing the LTC sector** (Long-term)

As noted above and in the body of the report, several changes to update the legislation are required. This includes:

- Implement and agree upon minimum care standards and hours to be funded in order to increase the equity of care provided across the province
- Necessitate specific building standards for optimized resident room, bathroom, and floor structure for future facility builds and modifications that optimizes IPAC goals
- Remove unnecessary risks and obstacles in improving resident safety and health such as the requirement for smoking rooms, facilitate the ability to provide oxygen support and use doors to hang PPE dispensing devices
- Given the challenges associated with updating legislation, the government should explore what can be done in the short term through an order in council

17 | **Develop and implement a robust human resources plan for the LTC sector** (Long-Term)

In order to attract, develop and retain the best caregivers there is an urgent need to define and execute a vision for the future of the LTC sector workforce. This will help to address the pre-existing challenges such as high turnover as well as the stressful pandemic working conditions and impact on staff morale. A review of workforce needs and supports should consider working conditions, pay and benefits, equity across regulated and unregulated staff, and the roles and responsibilities of LTCFs, DHW and NSH in strengthening the capacity and resilience of the workforce.