

December 16, 2022

Jaclyn Sheltry
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Office of Primary Care and Health Systems Management
New York State Department of Health
ESP Corning Tower, Albany, NY 12237

Via Electronic Mail

Re: Request for Methodological Recommendations for Nursing Home Personal Protective Equipment Stockpiles

Dear Ms. Sheltry:

I am writing on behalf of the members of LeadingAge New York (LANY) -- non-profit and public providers of long-term/post-acute care and aging services. We appreciate the opportunity to provide input into the Department's methodology for calculating the quantity of personal protective equipment (PPE) necessary to protect nursing home residents and staff in the event of a surge in an infectious disease and supply chain disruptions. We hope you will consider these comments preliminary and that we can speak about the methodology in more detail. The following are our initial responses to the Department's solicitation:

I. Initiate a Collaborative Effort to Right-Size the Government Stockpile and Develop an Appropriate Allocation Methodology for the Next Supply Chain Disruption

We support the aim of ensuring that sufficient PPE is readily available to nursing homes in the event of a surge in demand and supply chain failures. Unfortunately, the current methodology for nursing home stockpiles is driving a waste of precious healthcare resources – both material and financial. Historically, stockpiling PPE has been a government emergency preparedness function, and in many states and countries it remains one. We recognize that the State's PPE stockpile fell short during the pandemic and that the allocation of limited public supplies did not prioritize nursing homes. As an initial matter, we urge the OPCHSM and OALTC to work with the OHEP (Office of Health Emergency Preparedness) to ensure that government stockpiles are appropriately sized and that an appropriate plan is developed, in consultation with all stakeholders, for distribution of supplies in the event of another pandemic or supply chain disruption, based on agreed-upon principles such as regional prevalence or incidence, vulnerability of the population served, and nature of services provided.

II. Adjust Medicaid Rates to Reimburse Nursing Homes for the Cost of their PPE Stockpiles

Given the potential for shortfalls in the government supply of PPE, we understand the value of provider supplies in addition to government stockpiles. However, the regulatory requirement imposed on nursing homes to maintain a 60-day stockpile is not funded under the existing Medicaid rates. New York's nursing home Medicaid rates are based on **2007 costs, discounted by 9 percent**. If rates had kept up with inflation, they would be more than 40 percent higher today. With approximately 75 percent of New York's nursing home days paid for by Medicaid, the State bears a responsibility to pay for the new PPE stockpile requirement through the Medicaid rates. This cost was clearly not accounted for in 2007.

III. Implement an Appropriate Methodology for Determining the Quantity of PPE Required for Nursing Home Stockpiles

Setting aside the lack of funding for the stockpiles (and the storage and inventory control costs), the current stockpile methodology requires the purchase of excessive quantities of PPE, some of which will never be used before its expiration. The excessive amounts of PPE required by the current methodology are forcing nursing homes to rent warehouse space and pile up boxes in areas of facilities that would otherwise be available for communal activities. In addition, some facilities have been forced to dispose of excess supplies that expire before they can be used.

The Department has asked associations to identify a methodology for nursing homes that meets certain specifications. We do not believe there is a methodology that meets all of the specifications listed in the Department's solicitation. There are many different models or calculators that have been developed worldwide for governments and health systems to use either as pre-incident planning tools or for forecasting of PPE needs within given time windows (e.g., 7 days, 100 days, etc.) in response to COVID or another pandemic. For example, Ireland's Health Information and Quality Authority published a review of the literature on PPE demand models in September 2012 -- "[Identification of demand models for estimating the quantities of personal protective equipment \(PPE\) required for optimal patient care in the context of COVID-19](#)." Among those reviewed are the [CDC's PPE Burn Rate Calculator](#) which enables facilities to monitor and forecast their own PPE needs based on their recent use rates, and the Johns Hopkins model which is used as the basis for New York's regulations. Most of the models and tools included in Ireland's review were developed for hospitals; only 3 or 4 reference nursing homes. Several of the models note that their prediction accuracy diminishes as the time window increases. All of the tools and models appear to be based on projected patients, not on facility capacity (one also considers the number of health care workers).

New York's current methodology is loosely based on a briefly-described [Johns Hopkins model](#) developed in April 2020 – just one month into the COVID pandemic. The entirety of the Johns Hopkins model pertaining to nursing homes is reflected in the following text (pasted below) and a spreadsheet displaying the estimated PPE need for a 100-day wave of COVID-19 based on 1.5 million nursing home patients:

PPE use in nursing homes

We assume a 10% attack rate across 1.5 million nursing home residents in the United States.

We assume COVID patients are cohorted.

Gloves: 2 gloves for each of 12 changes per patient per day. This assumes a change with each patient encounter, as per normal practice by all healthcare workers.

Gowns: Assumes that COVID patients are cohorted and that a single gown is worn for 4 hours by each healthcare worker assigned to the COVID cohort, unless it becomes visibly soiled. An average of 3 changes per visit.

Simple masks: Assumes that COVID patients are cohorted and that a single mask is worn for 4 hours by each healthcare worker assigned to the COVID cohort, unless it becomes visibly soiled. An average of 1.5 changes per visit.

N95 respirators: Not anticipated to be used in this setting.

While New York's regulation generally adopts the number of changes of each type of PPE set forth in the Hopkins model (with the exception of N95 respirators), it deviates from the model in several respects. Moreover, there are several areas in which the model itself falls short in light of the real-world experience we

have developed over the course of this pandemic. The following are ways in which New York’s approach to determining the appropriate quantity of PPE for nursing home stockpiles could be improved.

a. Determine the Required Quantity of PPE Based on Projected Occupancy Rather than Certified Beds

As described above, the Hopkins model, like most PPE demand models, is based on projected patient encounters or visits – *it is not based on certified beds* or any other measure of facility capacity. New York’s nursing home methodology, by contrast is based on certified beds. (Notably, the hospital PPE stockpile regulation is based on “staffed beds.”) This aspect of the methodology is the clearest driver of excess supply. In September 2022, there were approximately 16,000 certified nursing home beds in New York State that were not in use. Even before the pandemic, in September 2019, there were approximately 9,000 beds not in use. Nevertheless, New York’s methodology is based on *total* certified beds, regardless of whether they are in use or have been in use in recent months or years. The nursing home methodology should, instead, be based on a reasonable projection of occupancy – perhaps based on average occupancy over an extended period or an average of two points in time. We would welcome an opportunity to discuss this further.

b. Assume that N95 Masks Will Substitute for Standard Masks in Certain Contexts

Notably, the Johns Hopkins model assumes that N95 respirators are not used in the nursing home – an assumption that has turned out to be mistaken. The DOH regulation requires the stockpiling of N95 respirators by nursing homes based on the assumption of 1.4 changes per resident per day. This figure is not reflected in the Hopkins model, and is higher than the assumptions for emergency departments and outpatient settings, but lower than the assumptions for ICU and Non-ICU hospital patients.

Further, neither the Hopkins model nor the DOH regulation accounts for the fact that nursing home staff are likely to substitute N95s for standard masks if they are caring for COVID patients. Thus, to reflect the reality of nursing home use of N95 masks, the model should reduce the number of standard masks based on the number of N95s.

c. Account for the Varying Shelf Life of PPE

The DOH regulation uses peak periods of COVID incidence to determine the amount of PPE required for stockpiles. If DOH is committed to requiring a stockpile based on worst case scenarios in terms of infection rates, it should provide for different formulas for calculating the required quantity of each type of PPE based on relative shelf lives. In other words, the formula should provide for lower levels of PPE types that have short shelf lives in comparison with those types that have long shelf lives. This would reduce the likelihood that PPE will expire prior to use.

In addition, we recommend removing the reference to the specific peak periods in Section 415.19 defining the “applicable positivity rate.” Instead, those reference dates should be provided through sub-regulatory guidance (e.g., “Dear Administrator Letter”). This would allow the regulations to be better aligned with the current conditions going forward.

d. Account for Reusable PPE

The State’s formula for calculating the required quantities of PPE should take into account reusable supplies, such as gowns. It appears that at least some surveyors require the same quantities of reusable gowns as disposable gowns. However, if the formula indicates a need for 5,000 gowns and the facility is using reusable gowns with a 50-wash lifecycle, then the facility would require 100 gowns in its stockpile to meet a 5,000 use

requirement, not 5,000 gowns. If the Department requires the facilities to purchase the same number of gowns, whether or not they are reusable, facilities will buy disposables which are less expensive on a per item basis, notwithstanding the impact on the environment and the fact that reusables would be more cost-effective.

The state should also consult with clinical experts on an ongoing basis to determine which supplies are needed in facility stockpiles given evolving epidemiology and development of new equipment.

Thank you very much for your consideration of these issues. We look forward to speaking with you further.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'K. Lipson', with a stylized flourish at the end.

Karen Lipson

Executive Vice President

Cc: John Morley
Adam Herbst
Amir Bassiri