



April 7th, 2020

To all post-acute care provider advocates:

SHOPP (The Society for Healthcare Organization Procurement Professionals) is an independent, non-profit entity created to improve quality and efficiency in post-acute care. We do not sell or lobby, we advocate for the provider and seek nothing in return.

To assist in your efforts to secure relief funding, we compiled this analysis of emergency, unfunded, marginal PPE costs incurred by skilled nursing facilities and assisted living centers treating COVID-19 patients. This is not an estimate, our calculations are based on current market pricing and CDC guidelines, per CMS' April 2nd, 2020 guidance.

For each item, SHOPP analyzed the pre-COVID-19 cost as well as the current COVID-19 pricing as of April 6<sup>th</sup>, 2020. (It is important to note that COVID-19 pricing has been extremely volatile and continues to change daily.) SHOPP has supplied both the price markup and percentage markup per item. Each item was reviewed with Faygee Morgenshtern, CEO of People Powered Nursing and Michael Greenfield, CEO of Prime Source Healthcare Solutions and Co-Founder of SHOPP. This analysis was conducted using a 100-bed facility multiplied by 30 days for a total of 3,000 census days per month. The items evaluated were:

- Vinyl exam gloves
- Latex gloves
- Nitril gloves
- 3-ply masks
- KN95 masks
- N95 masks
- 3M N95 masks
- Hand sanitizer
- Isolation gowns
- Face shields
- Soap

When calculating the PPD (patient per day) cost, SHOPP took into consideration that a given facility does not use all the evaluated items; instead, facilities generally use one type of glove and one type of mask. As an example, facilities ideally use vinyl exam gloves daily. If vinyl is not available, the next choice from a price perspective is latex gloves, but many people are allergic to latex. Nitril gloves are the most expensive option, but in circumstances like COVID-19, they are being used more frequently.



3-ply mask pricing was calculated using FDA-approved masks in boxes rather than bags, and N95 mask pricing was calculated using NIOSH-certified masks on the CDC-approved list. It is important to note that KN95 masks were only FDA-approved as of April 2<sup>nd</sup>, 2020. For 3-ply masks, SHOPP's calculation assumed every employee in the facility (both medical and non-medical staff) would be wearing 2 masks a day. KN95, N95, and 3M N95 masks, as well as face shields, last longer and can be used for a 7-day period. (At the time of our analysis, 3M N95 masks were currently unavailable) The calculation for these masks and for face shields assumed supplies for 175 employees to account for both PRN staff and regular staff. Isolation gowns were calculated as being changed after every resident encounter similar to gloves. It is important to note that assisted living centers use roughly 25% less PPE than skilled nursing facilities based on resident interaction.

For gloves, regardless of type, SHOPP calculated that all medical and non-medical staff change gloves between each resident as well as twice a day for non-resident care (bathroom or food breaks, as well as any personal breaks). Lastly, for soap and hand sanitizer, the calculation assumed each employee would use 2 ounces of each daily. Hand sanitizer pricing was calculated on a per-ounce basis for an 8-ounce bottle. Soap pricing was calculated on a per-ounce basis via a dispenser.

Calculating the PPD cost per item, SHOPP first reviewed pre-COVID-19 pricing while following pre-COVID-19 requirements for PPE (i.e., vinyl gloves and soap). The PPD costs for this equipment totaled \$35.00 per day or 0.35 PPD. The next breakdown was calculated using pre-COVID-19 pricing while following current CDC guidelines for PPE (i.e. vinyl gloves N95 masks, hand sanitizer, isolation gowns, face shields and soap). The total cost per day was \$236.00 or 2.36 PPD. This is a 674% increase in costs.

Finally, SHOPP's analysis examined current COVID-19 pricing following the current CDC guidelines. This was broken out into two categories: typical PPD using vinyl gloves and N95 masks, and PPD using nitril gloves (due to unavailability of vinyl gloves) and N95 masks. For typical PPD, the daily cost was \$2,510.25 or 25.10 PPD. This is a 1,064% increase in costs compared to the pre-COVID-19 costs and requirements. For PPD using nitril gloves, the daily cost was \$2,558.25 or 25.58 PPD. This is a 1,084% increase in costs.

*End of report narrative.*

Thanks,

CO - Founders

Marc Zimmet

Josh Silverberg

Ari Stawis

Michael Greenfield

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Handwritten signature of Josh Silverberg in black ink.

Handwritten signature of Ari Stawis in black ink.

Handwritten signature of Michael Greenfield in black ink.



**Supplemental Notes**

**Exhibit 1: Pricing Per Item\***

Item	Pre Covid-19 Cost	Current Covid-19 Cost	Price Markup	Percentage Markup	Notes
<b>Vinyl Exam Gloves</b>	\$ 0.02	\$ 0.06	\$ 0.04	300%	Ideally people use vinyl. If not vinal then latex but issues with allergies so Nitryl is most expensive resort
<b>Latex Gloves</b>	\$ 0.03	\$ 0.08	\$ 0.05	267%	
<b>Nitryl Gloves</b>	\$ 0.05	\$ 0.10	\$ 0.05	200%	
<b>3ply Masks</b>	\$ 0.05	\$ 0.75	\$ 0.70	1500%	FDA certified in boxes, not bags.
<b>KN95 Masks</b>	N/A	\$ 4.00		N/A	Recently (April 2nd) FDA approved
<b>N95 Masks</b>	\$ 0.38	\$ 5.75	\$ 5.37	1513%	Niosh certified, CDC approved list
<b>3M N95 Masks</b>	\$ 0.11	\$ 6.75	\$ 6.64	6136%	Currently unavailable. Includes testing kit for sizing
<b>Hand Sanitizer</b>	\$ 0.26	\$ 0.56	\$ 0.30	215%	Per ounce for 8 ounce bottle. Required to be at 70% percent alcohol
<b>Isolation Gowns</b>	\$ 0.25	\$ 5.00	\$ 4.75	2000%	New gown per resident
<b>Face shields</b>	\$ 0.50	\$ 4.50	\$ 4.00	900%	Reusable
<b>Soap</b>	\$ 0.19	\$ 0.35	\$ 0.16	184%	Per ounce via dispenser



**Exhibit 2: PPD Formulas\***

Item	Old	Old Pricing w/ New Demand	CDC Guidelines	Notes
Vinyl Exam Gloves	\$ 16.00	\$ 24.00	\$ 72.00	All staff changing between each resident as well as 2x/day for non-resident care
Latex Gloves	\$ 96.00	\$ 96.00	\$ 96.00	All staff changing between each resident as well as 2x/day for non-resident care
Nitryl Gloves	\$ 60.00	\$ 60.00	\$ 120.00	All staff changing between each resident as well as 2x/day for non-resident care
3-Ply Masks	\$ 10.00	\$ 10.00	\$ 150.00	100 employees x 2 masks a day
KN95 Masks	\$ 100.00	\$ 100.00	\$ 100.00	175 employees x 4 dollars a mask divided by 7 days
N95 Masks	\$ 9.50	\$ 9.50	\$ 143.75	175 employees x 5.75 dollars a mask divided by 7 days
3M N95 Masks	\$ 168.75	\$ 168.75	\$ 168.75	175 employees x 6.75 dollars a mask divided by 7 days
Hand Sanitizer	\$ 52.00	\$ 52.00	\$ 112.00	Each employee using 2 ounce a day
Isolation Gowns	\$ 100.00	\$ 100.00	\$ 2,000.00	100 residents x 4 visits a day x price per gown
Face Shields	\$ 12.50	\$ 12.50	\$ 112.50	175 employees x 4.50 per face shield divided by 7 days
Soap	\$ 19.00	\$ 38.00	\$ 70.00	100 employees x 2 ounce per Employee

**Exhibit 3: PPD Costs\***

	Pre-COVID-19 Requirements	Pre-COVID-19 Pricing w/ Current CDC Guidelines	Current COVID-19 Pricing w/ Current CDC Guidelines	Current COVID-19 Pricing w/ Current CDC Guidelines, Nitryl Gloves, N95 Masks
Total Costs Per Day	\$ 35.00	\$ 236.00	\$ 2,510.25	\$ 2,558.25
PPD	\$ 0.35	\$ 2.36	\$ 25.10	\$ 25.58
Percentage Markup		674%	1064%	1084%

\*Pre-Covid-19 pricing is based on multiple facilities averaged over 12-month period.