NOTE: This resource was originally published in 2020 and updated in 2021. It is not being maintained. While information contained within was current when published, it may be outdated, and some links may not work.

Fact Sheet

PPE Preservation Planning Toolkit

This toolkit is designed to aid organizations by maximizing the use of Personal Protective Equipment (PPE) by planning and implementing preservation strategies.

As of release 1.3, in April 2021, given increasing availability of PPE during the COVID-19 pandemic, with a shift in emphasis away from crisis and contingency practices and toward conventional practices, the Toolkit is being archived in its then-current state, with encouragement of users to consult the latest guidance from CDC (Optimizing Personal Protective Equipment (PPE) Supplies[1]) and FDA (Personal Protective Equipment EUAs[2]). The Toolkit can be used any time for consideration of conventional preservation practices (marked as-such in the Tool), but only when the circumstances warrant should be used to support contingency or crisis practices, consistent with CDC and FDA guidance.

The toolkit provides estimates of the value of implementing preservation actions to reduce (use of), to reuse, or to repurpose PPE, as described in the Coronavirus (COVID-19) Pandemic: Personal Protective Equipment Preservation Best Practices[3] fact sheet, in conventional, contingency, or crisis capacity conditions (as defined in the Centers for Disease Control and Prevention's Optimizing Supply of PPE and Other Equipment during Shortages[4]). Users enter data on their current or prospective PPE use practices. The toolkit assists users to understand preservation strategies their organizations can implement. It also provides estimates of the positive impacts of using those strategies in increasing the duration of PPE supplies.

What is included?

1. The Guide (PDF): step-by-step instructions
2. The Tool (spreadsheet): Dynamic tool to enter and analyze data and interpret output

How does it work?

Users enter data based on their use of PPE (gloves, N95 respirators, surgical masks, face shields/eye protection, gowns) and factors reflective of their current or prospective operating environment and practices. This includes the following elements:

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[1] https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html, accessed 7 Apr 2021

[2] https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/personal-protective-equipment-euas, accessed 7 Apr 2021

[3] https://files.asprtracie.hhs.gov/documents/fema-fact-sheet-ppe-preservation-best-practices-update---14-july-2020.pdf, accessed 4 Mar 2021

[4] https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html, accessed 4 Mar 2021

- Identification of staff categories requiring PPE, the numbers of employees using PPE, and estimation of the daily PPE consumed per staff member by staff category.
- Practices of PPE use for patients or work cycles, and the proportion of patients or facility staff to whom the practices apply.

Analysis and output include the following elements:

- Estimation of reduction factors associated with each PPE preservation strategy for each PPE category.
- Estimation of reduction factors with preservation strategies for all categories.
- Estimation of duration of specified supply amounts, displayed in tables and graphs.

What do I need to get started?

You will need the following information to use the Tool:

☐ What categories of personnel use PPE and which types of PPE do they use?

☐ For each category of personnel, what is the typical daily rate of use of each type of PPE or what are the typical practices of how it is used daily? For example, how many patients does a staff member serve for each item of PPE used, and how many patients does the person serve each day?

☐ What quantity of PPE do you want to assess for estimation of duration of supply with the implementation of PPE preservation strategies? For example, this can be an on-hand amount, or it can be an amount in an order or delivery. This will depend on how the user decides to input data for comparison of supply duration with or without the implementation of preservation strategies.

☐ How many items (or pairs) of PPE are in each unit of packaging (e.g., box)?

How long will it take?

The following estimates are based on initial testing:

- Thirty minutes for orientation and preparation for using the tool
- One to three hours for entering information to enable preparation for use of the preservation strategies and estimation of the use (burn) rate and impact of preservation strategies on duration of supplies

Time for using the tool will vary based on the size and complexity of the organization and the familiarity of the user with the organization and the concepts.

How is this tool different from related tools?

The NIOSH PPE Tracker App[5], the CDC Burn Rate Calculator[6], and the EMS PPE Supply Estimator[7] are additional tools developed for estimating burn (use) rate of PPE based on historical usage or on use practices for PPE supplies. The tools can be used complementarily with the PPE Preservation Planning Toolkit for estimation and planning purposes. They would not necessarily be expected to provide identical results, given the differences in purposes and methods as described in the table below.

Feature	NIOSH PPE Tracker App & CDC Burn Rate Calculator	EMS PPE Supply Estimator	PPE Preservation Planning Tool
Estimates use rate and PPE supply duration.	Yes[8]	Yes[9]	Yes[10]
Accounts for resupply deliveries in estimating use rate and supply duration.	Yes	No	No
Accounts for use-reduction factors when implementing preservation strategies.	No	No	Yes
Allows user to adjust reduction factors to reflect unique preservation practices.	No	No	Yes
Estimates changes in PPE use rate and supply duration based on preservation strategies.	No	No	Yes
Facilitates user's expansion of use of preservation strategies.	No	No	Yes

Questions or comments?

Please submit to ASPRStakeholder@hhs.gov with a subject line of "PPE_Preservation."

[5] https://www.cdc.gov/niosh/ppe/ppeapp.html, accessed 30 Sep 2020

[6] https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html, accessed 30 Sep 2020

[7] https://www.ems.gov/files/EMS_PPE_Supply_Estimator.xlsx, accessed 30 Sep 2020

[8] Based on historical record of supply levels

[9] Based on user input of supply use practices

[10] Based on user input of use rate for staff categories or user-supplied staff activity assumptions