



National Academies Workshop Confirms Benefits of Reusable Healthcare PPE

BACKGROUND

A bipartisan coalition in Congress sent a Congressional Inquiry to U.S. Health and Human Services (HHS) Secretary Becerra requesting a study comparing reusable versus single-use disposable healthcare PPE. As part of this study, the National Institute for Occupational Safety and Health (NIOSH)'s National Personal Protective Technology Laboratory (NPPTL) sponsored a National Academies workshop to investigate the potential benefits of reusable healthcare personal protective equipment (PPE) and engage with stakeholders on pathways to increase adoption.

WORKSHOP FINDINGS

The National Academies convened technical experts, policymakers, manufacturers, healthcare providers, industrial laundry operators and other stakeholders. Experts who participated in the workshop validated that reusable healthcare textiles (HCTs) provide significant public health advantages over disposables:

Environmental Sustainability

The U.S. healthcare system generates 15,000 tons of waste from disposable PPE each day. Reusable HCTs have a significantly smaller environmental footprint compared to disposables. Life-cycle analyses (LCAs) demonstrate that reusables reduce solid waste, water usage, greenhouse gas emissions and energy consumption. One reusable gown can replace 75 disposable gowns.

Switching from disposable to reusable isolation gowns reduces:

- Solid Waste Generation **93%**
- Water Consumption **41%**
- Greenhouse Gas Emissions **30%**
- Total Energy Consumption **28%**

Emergency Preparedness

The COVID-19 pandemic revealed that relying on single-use PPE made healthcare facilities vulnerable to supply shortages. As noted by a workshop expert, "reusable gowns can increase supply resilience in times of a major crisis."

Performance

Reusables meet high quality and safety standards to protect patients and providers. The workshop cites a 2018 study that found reusable gowns consistently outperformed disposable gowns for liquid barrier protection.

Lower Costs

Reusable PPE generates considerable savings. In a case study presented during the workshop, switching from disposable to reusable isolation gowns yielded a 52% cost savings. Other HCTs—such as surgical gowns and incontinence pads delivered up to 90% cost savings.

ACTION

Substantial evidence supports the benefits of reusable over single-use healthcare PPE. Legislators should take action to increase the operating threshold of reusable personal protective equipment (PPE) in healthcare facilities to a minimum of 50% to promote environmental sustainability, emergency preparedness, enhanced safety and cost savings.

“The realization of the potential benefits of reusable PPE – such as reduced waste, decreased overall costs and lowered environmental impact – is unlikely without legislation.” – Dr. Maryann D’Alessandro, Director of the CDC National Personal Protective Technology Laboratory (NPPTL). For the full workshop proceedings, visit bit.ly/ReusablesWorkshop.

Click Here for National Academies of Sciences, Engineering and Medicine (NASEM) Workshop Examining Benefits of Reusable HCTs
[Official Proceedings](#) | [Interactive Workshop Overview](#)