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National Ppe Demand Estimate Tool

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The COVID-19 pandemic has brought to light many needs related to ensuring adequate supplies of personal protective equipment (PPE) for critical personnel. One key need is the ability to estimate regional and national PPE demand for potential scenarios of interest to inform planning and strategies to enable a more resilient domestic production capacity. To explore demand scenarios for key consumer groups, MIT Lincoln Laboratory developed the National Personal Protective Equipment (PPE) Demand Estimate Tool in collaboration with Advanced Functional Fabrics of America (AFFOA) as part of a Coronavirus Aid, Relief, and Economic Security (CARES) Act-funded project. The web-based tool was designed to estimate regional and national PPE demand for three key types of PPE: N95 masks, surgical masks, and surgical gowns. The tool estimates up to 30 days of PPE demand for six consumer groups: hospitals, long-term care facilities, home health care providers, emergency management technicians and paramedics, fire fighters and police. Tool inputs include COVID-19 related hospitalization and long-term care resident occupancies and related growth rates to enable demand estimates for specific COVID-19 scenarios. For each consumer group, one to two PPE use policy options are defined, based on CDC PPE use guidance, subject matter expert data and inputs, and published data. This talk will provide an overview of the tool, its calculations, and estimates of national PPE demand for two scenarios, a future COVID-surge scenario similar to the one that occurred during the winter of 2021 and a steady-state scenario based on historical influenza seasons.

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