

## Glove Story: Global Glove Production Amidst the COVID-19 Pandemic

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*The utilization of medical and surgical gloves increased significantly with the declaration of the COVID-19 pandemic in March 2020, as demand from traditional users in the medical profession grew and new industries began using medical gloves for daily activities, such as front-line workers, transportation workers, and even the general public. Additionally, the institution of vaccination campaigns around the world has put more of a strain on the balance of supply and demand. As every COVID-19 vaccine administered requires a new pair of gloves, in the United States alone, vaccinating the entire population creates a need for approximately 660 million gloves. Global production increases are only able to accommodate a portion of the increase in demand. As a result, the global glove shortage persists and is expected to continue into 2022.*

### Malaysia is the Largest Global Producer of Nitrile Gloves

There are four main types of gloves that are used in a medical and surgical context—latex, vinyl, nitrile, and gloves of other materials (e.g., neoprene or polyisoprene). Since entering the market in the early 1990's, nitrile gloves have been the preferred glove for use in the medical field. Compared to other common medical and surgical gloves (e.g., latex and vinyl), nitrile gloves cause fewer allergic reactions, are more tear-resistant, and are lower priced. Malaysia produced approximately 60 percent of the world's nitrile gloves and accounted for 75 percent by quantity of non-hard rubber medical gloves, (which includes all the above mentioned types except vinyl), imported into the United States in 2020, with no other country holding a significant share. Malaysia's supply of rubber trees and government assistance in the 1990's helped it become the glove center it is today. As the global nitrile glove industry already was producing at peak capacity prior to the onset of the pandemic, any change in Malaysia's production sends ripples across the world for usage and prices.

### Supply Disruptions Plague Malaysia's Top Glove

Malaysia's Top Glove Corp. ("Top Glove") produces over one-quarter of the global supply of gloves across all materials and glove types, which includes medical nitrile and latex gloves. Prior to July 2020, two subsidiaries of the company produced nearly one-half of Top Glove's total exports to the United States. On July 15, 2020, however, U.S. Customs and Border Protection (CBP) issued a Withhold and Release Order for forced labor discoveries against these two subsidiaries, resulting in seizure of all listed products, including nitrile gloves, at CBP inspections. As a result of the immediate decrease in supply the cost of nitrile gloves imported into the United States from Malaysia rose 18 percent from July to August 2020 (to \$0.03 per glove). Supply remained tight and prices continued increasing through early fall, and in November 2020 Top Glove had a COVID-19 outbreak, temporarily shutting 28 of 41 of their Malaysian facilities and exacerbating supply woes. With the decrease in production and a surge in U.S. COVID-19 hospitalizations, the cost of nitrile glove imports from Malaysia increased an additional 20 percent from November to December 2020 (to \$0.05 per glove). By early 2021, Top Glove's facilities had reopened.

CBP issued a Forced Labor Finding on March 29, 2021, against all of Top Glove's Malaysian factories. This finding entails CBP seizing certain Top Glove products, including nitrile gloves, sourced from Malaysia. As Top Glove is the number one global glove producer, there are renewed concerns about the availability of imported gloves from Malaysia, and Top Glove's continued forced labor troubles make the possibility of a global glove shortage lasting into 2022 more of a certainty, per industry sources.

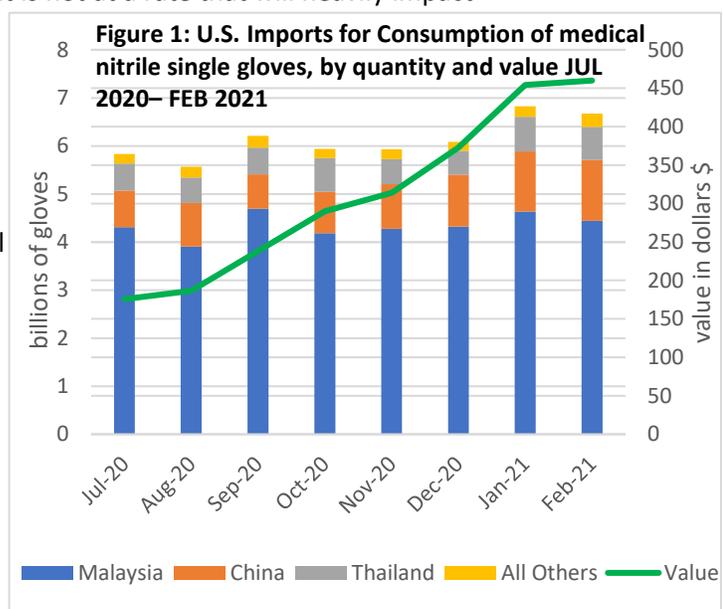
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### A Small U.S. Industry Cannot Alleviate Demand Pressures

There are currently only three medical and surgical glove producers in the United States, thereby U.S. production levels for all glove types and materials remain insufficient to meet domestic demand. U.S. production of medical and surgical gloves increased slightly since March 2020, but not enough to offset the increased demand, even as firms expand operations to take advantage of rising prices and growing domestic needs. Rhino Health, an existing producer, announced in April 2021 a new facility planned in Texas that will triple its current production. Similarly, Showa Group, located in Alabama, said that it would also triple its production capacity by 2022. Beyond the existing production base, U.S. Medical Glove Co. LLC, a new U.S. firm, is currently installing production equipment in its Kentucky-based plant and anticipates that nitrile glove production will start in the first half of 2021. In addition, American Nitrile LLC, formed in January 2021, entered into an agreement with Gloveconcept Sdn, a Malaysian company, for delivery of an operational glove production facility on a turnkey basis for production in Ohio. There is currently no timeline on when work will commence, but the agreement is reportedly for a minimum of 12 production lines with the possibility of expanding to up to 72 lines. Notwithstanding these announcements and planned expansions, the existing three U.S. producers currently produce 6.3 billion nitrile gloves annually, whereas current U.S. imports are over 5 billion nitrile gloves monthly, illustrating that while the U.S. glove industry is expanding, it is not at a rate that will heavily impact domestic sourcing or alleviate the current glove shortage.

### China Makes Slight Gains in the U.S. Market

Malaysian supply constraints combined with the United States' small domestic industry have created opportunity for other global suppliers. Prior to the pandemic, China held a significant market share in vinyl medical and surgical gloves (accounting for 98 percent of U.S. imports by quantity in 2020). Although the country was not a major producer of nitrile gloves, it has since increased capacity and production. China is not yet a large supplier of nitrile gloves to the United States, but its market share has been increasing since the beginning of the pandemic, from 13 percent of U.S. imports by quantity in July 2020 to 19 percent in February 2021 (the orange bar in figure 1). However, industry representatives say that the Chinese gloves are not of the same quality as Malaysian, leaving the medical field to continue using high-cost Malaysian gloves until better alternatives are found.



Source: USITC DataWeb/USDOC, HTS 4015.19.0550 (accessed April 9, 2021).

Sources: BBC, "[Covid-19: World's Top Latex Glove](#)," November 24, 2020; BBC, "[US to Seize Top Glove](#)," March 30, 2021; Cosgrove, Emma, "[US Nitrile Glove Factory](#)," January 22, 2021; Industry representatives, interviews with USITC staff, February – March 2021; Johnson, Jim, "[U.S. Firms Ramping](#)," November 18, 2020; Lee, Liz, "[Amid Virus Crisis, U.S. Bars](#)," July 16, 2020; Malay Mail, "[Malaysia's Luster Industries Bags Contract](#)," April 12, 2021; New Strait Times, "[Luster Bags RM1bil Contract](#)," April 12, 2021; Quintero, Donovan, "[Glove Factory Struggles](#)," June 11, 2020; Salchert, Ryan, "[Church Rock Rubber Glove Maker](#)," April 15, 2021; USITC, [Industry and Trade Summary – Gloves](#), December 1992; WBKO News Staff, "[Medical Glove Manufacturer](#)," November 4, 2020; Zaugg, Julie, "[The World's Top Suppliers](#)," September 11, 2020.

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