June 8, 2020

To: Distribution

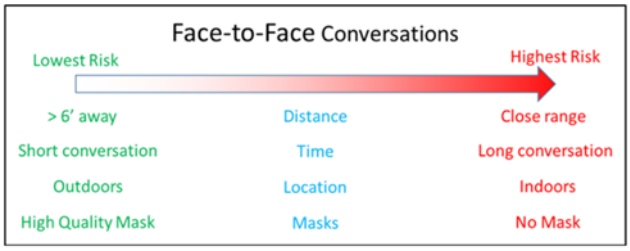
From: Pandemic Working Group

Re: **COVID-19: The Dignity of Masks ~ Speaking Indoors ~ On Planes**

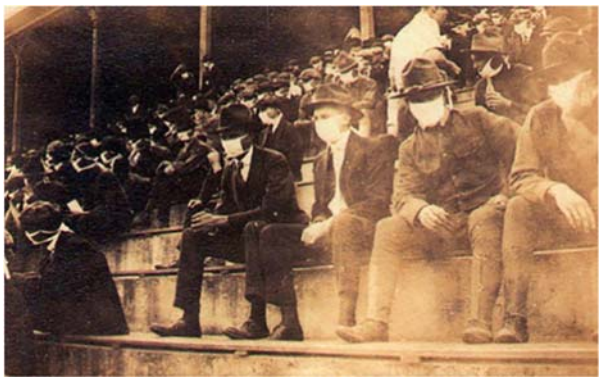
The Dignity of Masks. As reported in the New York Times, without having resorted to broad-based lockdowns and extensive testing, Japan, with a population of about 125 million, has managed to limit the spread of the coronavirus to just 17,000 infections and about 900 deaths. By contrast, California alone, which has one-third of the population, now has about 128,000 cases and 4600 deaths, and the United States, with 2.5 times the Japanese population, has nearly two million cases and 112,000 deaths.

The primary distinguishing factor seems to be that, early in the pandemic, the entire population put on masks, as in this photo from the NYT, which shows a scene from a Japanese supermarket last month. When paper masks sold out, the Japanese government sent cloth face coverings to its citizens in the mail. Japan eventually urged karaoke bars to close and persuaded employees to telework where possible. In addition, Japan closed its schools earlier than most, and sporting events were taken off calendar. The ease with which Japanese donned masks almost universally may arise, in part, from its cultural roots. According to Professor Kazunari Onishi, author of "The Dignity of Masks," mining workers started using masks during the Edo period between the 17th and 19th centuries to prevent inhalation of dust. In 1918, the population was persuaded to wear them during the great pandemic and, more recently, during the SARS and MERS outbreaks, which left Japan comparatively unscathed. While the science of causation has yet to be dispositively established, there does appear to be a correlation between the simple practice of wearing a face covering and pandemic control.

Speaking Indoors. On the subject of masks and viral transmission (always a favorite), according to Professor Erin Bromage UMass Dartmouth (remember, we reported in past issues on his "Dose x Exposure = Infection"), when we speak, particularly when saying hard letters like "K," "P" or "T," larger respiratory



droplets (with potentially higher viral load) are generated. Larger droplets fall to the ground sooner, while smaller aerosol droplets (which have a lower viral load) can travel farther. Thus, the breathing zone of six feet is considered to be a higher risk zone for infection. Dr. Bromage says that having face-to-face conversations during a pandemic can be risky. As indicated in his table (from erinbromage.com), there are many factors that reduce or add to that risk. If we are going to be indoors, then it is best to maintain social distance and, if we are going to be talking for more than just a short period, we should wear face coverings. Dr. Bromage adds that a cloth mask alone can reduce transmission by the wearer by 50%, and some multi-layer materials by as much as 90%. He hastens to add that "My mask protects you; your mask protects me." In effect, then, wearing a face covering is an act of consideration for others. And, for you history buffs, behold this photo taken during the 1918 pandemic at a Georgia Tech football game, when the fans were showing consideration par excellence.



Plane Cabins. As reported in the L.A. Times yesterday (courtesy of Eric Wintemute), while consumer groups such as Flyersrights.org argue for requiring wider cabin spacing for passengers to prevent contagion, low-cost airlines are petitioning the Department of Transportation to allow high-density seating on flights. Meanwhile, the nation's largest union of flight attendants is asking lawmakers to require the use of masks by all passengers and, for now, to prohibit leisure and nonessential air travel. So, where does this leave us? At this stage, we know that carriers are implementing much more rigorous cleaning standards and that many commercial aircraft use HEPA filtration and mix filtered cabin-air with fresh air prior to recirculation. However, as Dr. Dean Winslow, infectious disease specialist at Stanford University Medical Center put it, while air systems make it difficult for germs to travel throughout a cabin, that doesn't completely eliminate the risk inherent in being seated shoulder to shoulder with a sick passenger on a long-haul flight. In short, we at AMVAC watch and wait for an acceptable safety standard among carriers.

On a closing note. Direct from the sunny shores of Brazil, our own Thomas Britze is shown here donning a limited-edition cap and cloth mask bearing the Amvac do Brasil logo. So, you can see that it is possible to protect others, promote the company's image and maintain a sense of style at the same time. Obrigado, Tomas.

If you have any questions or comments on this advisory, please contact either kellyw@amvac.com or timd@amvac.com .