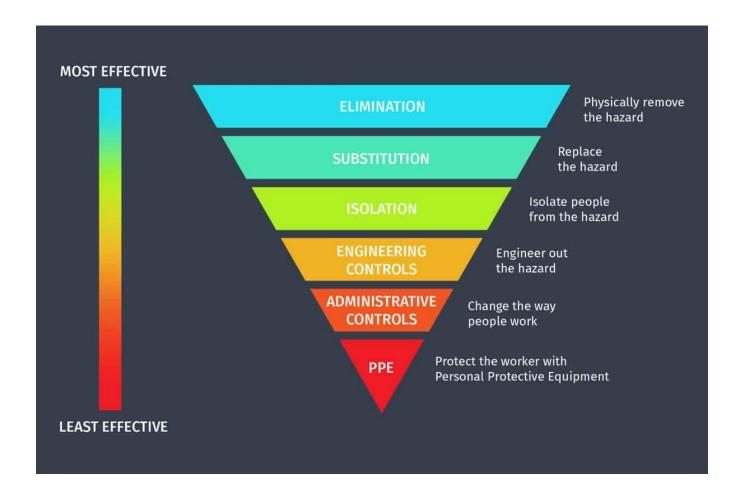
OSHA has managed the laws regarding Respiratory Protection Since 1979. This Law was passed to ensure employees were granted their legal right to work in a safe and healthful work environment. In the field of Occupational Safety and Health, there exists a Hierarchy of Safety and Controls. As you see in the graphic below, PPE is viewed as a last resort, when all other controls are unable to control a hazard down to a safer level, Personal Protective Equipment is recommended and sometimes required. In the workplace, under 29 CFR 1910.134, employees must be medically cleared to don (put on) a Respirator. It is important to determine the difference between a respirator and a face mask, also cited as a facial covering.



A respirator is a device designed to protect the wearer from inhaling hazardous atmospheres, including fumes, vapors, gases and particulate matter such as dusts and airborne microorganisms. There are two main categories: the air-purifying respirator, in which respirable air is obtained by filtering a contaminated atmosphere, and the air-supplied respirator, in which an alternate supply of breathable air is delivered. Within each category, different techniques are employed to reduce or eliminate noxious airborne contaminants. Respirators are tested and approved for use by NIOSH, the National Institute for Occupational Safety and Health

A mask/facial covering is a made of cloth material designed to aid in providing basic protection against non-toxic dust, pollen, mold and dander, in general, nuisance dusts. Furthermore, surgical masks and ear loop masks are masks used generally in healthcare as a bacterial barricade to avoid cross contamination during surgical procedures. It is important to note surgical masks are designed to be utilized in an already sterile environment, to protect the patient from the Healthcare workers bacterial transmission. They are not designed nor rated to protect against infectious diseases.

While these methods of control implementation are designed for workplaces, the science that outlines this strategy is highly relevant to Public Health and to aid in controlling hazards in our homes and within the general population. In July of 2020, Governor Gretchen Whitmer implemented mandatory facial coverings for Michiganders. This mandate contradicted over 40 years of science. Occupational Safety and Health experts are the most credentialed subject matter experts on Respiratory Protection and its related PPE. They know masks not rated by NIOSH are not designed nor capable of controlling hazards against a virus, based on the wide array of untested materials and due to the micron size of most viruses.

We know, in healthcare, only respirators have the capability of aiding in lowering the likelihood of exposures to viruses. This is why Healthcare Workers (HCWs) who have the greatest potential to work around infectious disease patients are required to be enrolled in a Written Respiratory Protection Program. Within this program, along with medical clearance through a health questionnaire and physical, HCWs are also fit tested on their Respirators to ensure a specific brand provided a proper fit and allowable fit factor of protection. Additionally, they are trained on the Respirator. How to properly don (put on) and doff (take off) their respirators. Also covered, is the proper usage, limitations, cleaning, storage and filter change out schedule. To allow a HCW to utilize respiratory protection without the above OSHA requirements, is an OSHA Violation.

Establishing the difference between a respirator and a mask and/or facial covering, is to convey the limitations of these masks, as they are NOT rated to protect against a virus for the wearer nor individuals around the wearer. In mentioning the medical clearance requirements, this is in place to allow an Occupational Health Physician to determine if the wearer can safety utilize the respirator based on specific tasks they will perform. This covers length of wear, how long will it be worn, and what other PPE will also be worn while the respirator is in use, along with individual health history's and task to be performed. This is why medical clearance is important, respirator use is absolutely never one size fits all. There are also numerous medical reasons employees become exempt or denied clearance for respirator use.

This channels us into the issue with Governor Whitmer's Mandate. This is a negligent and hazardous mandate. If respirators are not designed to be used for prolonged daily use, and not to be worn while over exerting one's self, why and how can children be required to don a face mask all day during school and additionally while playing sports. Students are forced to utilize these masks that are made of materials that hinder proper gaseous exchanges. They encourage the growth of bacteria due to improper wear, change out, and the heat generated inside the mask. These conditions can cause children to inhale their own carbon dioxide, because they have a higher rate of breathing patterns. If a child has a cold or a virus, mask use encourages the body to inhale the exhausted waste, which can extend the level of infection and increase viral load.

The American Conference of Governmental Industrial Hygienists, ACGIH has provided guidance on the difference between respirators and masks and puts a strong emphasis on the risk associated with wearing masks for COVID-19, as it provides a false sense of security. The ACGIH states, "Even if you wore it right but then removed it wrong, you are at an increased risk of cross contamination". This directly correlates with the training aspects mentioned above. This training is important, and was revealed in a 2010 study among HCWs during a flu outbreak in hospitals. Scientists conducted studies to determine how and why HCWs were seeing an increase in flu cases when they were given proper respirators. It was revealed these workers had forgotten some of the key aspects of their OSHA training. Fomite transmission was found to be the root cause, a form of cross contamination. The constant touching of the respirators, and improper hand hygiene were primary factors of the spread, (National Academy of Sciences, 2010). This study put a strong emphasis on why training on respiratory protection is required on an annual basis, along with an annual fit test and review of their medical clearances.

Children are absolutely not trained on how to proper don and doff a mask. In some schools, lanyards are provided so students are able to hang their masks when they remove them for eating or approved activity for removal. This goes against all health and safety etiquette. These masks are to be stored in a clean and dry environment so no other outside contaminants, particulates and foreign substances can soil and dirty the mask. We are not seeing this is schools. Students are not only not properly storing their masks, there is no oversight on their change out. This activity can cause a greater hazard to fellow students, as we do not know how these masks are stored nor handled within their homes. Furthermore, the constant touching of the masks, can easily cause fomite transmission through contact with the masks after touching infected surfaces. Children are much more likely to touch their faces and their masks because they are constantly adjusting and pulling on these newly introduced articles of clothing.

Students with allergies, autism, sensory disorders, asthma, anxiety, claustrophobia, and those dealing with seasonal congestion, face a greater increase in health hazards associated with mask wearing, including mental and emotional distress. If you choose to put your child in a mask, please understand your child may experience headaches, lightheadedness, impaired focus and

concentration, memory issues, perioral dermatitis and weakened immune systems. Dr. Estaban Kosak, a Medical Doctor and Researcher, recently stated, "Scientific investigations have proven that a prolonged denial of enough oxygen in the body can cripple the ability of our immune system to tackle infections which is even worse with older and younger people." Furthermore, the environment inside the mask and lack of fresh air has been known to cause health issues that actually mimic the same symptoms of respiratory infections, (Meyer, 2020).

It is important to remember the data regarding children and their lowered likelihood of causing the spread and their greater ability to recover from covid-19. In early March, Dr. Anthony Fauci, a leading voice on the White House Coronavirus Task Force, told "60 Minutes" face masks were not necessary for the general population amid the novel coronavirus outbreak, adding that while masks might make people "feel a little bit better," they don't provide the protection folks believe they do and might create "unintended consequences.", (Zeballos-Roig, 2020). It is my professional opinion, any changes on this stance is nothing than political theater.

The conclusive opinions, based upon the findings of Randomized Control Testing (RCT), along with 40 years of science, is that cloth masks should not be worn by children for the protection against the Covid-19, SARS-CoV-2. The results from the first RCT study on cloth masks caution against their use. This is an important finding in the study of occupational health and safety, revealing moisture retention, reutilization of cloth masks and inadequate filtration may result in an increased risk of infection. "The rates of all infection outcomes were highest in the cloth mask, showing penetration of cloth masks by particles was almost 97% and medical masks 44%.", (MacIntyre et al, 2015).

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