2021 HOUSE POLITICAL SUBDIVISIONS

HB 1323

2021 HOUSE STANDING COMMITTEE MINUTES

Political Subdivisions Committee

Room JW327B, State Capitol

HB 1323 2/4/2021

Relating to limitations on mask wearing requirements

Chairman Dockter: (3:00) Opened the hearing.

Representatives	
Representative Jason Dockter	Р
Representative Brandy Pyle	Р
Representative Mary Adams	Р
Representative Claire Cory	Р
Representative Sebastian Ertelt	Р
Representative Clayton Fegley	Р
Representative Patrick Hatlestad	Р
Representative Mary Johnson	Р
Representative Lawrence R. Klemin	Р
Representative Donald Longmuir	Р
Representative Dave Nehring	Р
Representative Marvin E. Nelson	Р
Representative Luke Simons	Р
Representative Nathan Toman	Р

Discussion Topics:

- Government mandates on mask wearing
- Recommendations for mandates

Rep. Hoverson. Introduced the bill. Testimony #5531.

Jimmy Van Hass, Respiratory Therapist. In favor, no written testimony.

Marty Beard. In favor, no written testimony.

Erik Johnson, City Attorney Fargo, ND: In opposition, testimony #5255.

Dr. Fogerty, Director/Physician/Founder Integrative Medicine, Radiology, Pain Management, Sports Medicine: Neutral, testimony #5506, 5507, 5508.

House Political Subdivisions Committee HB1323 2-4-21 Page 2

Additional written testimony:

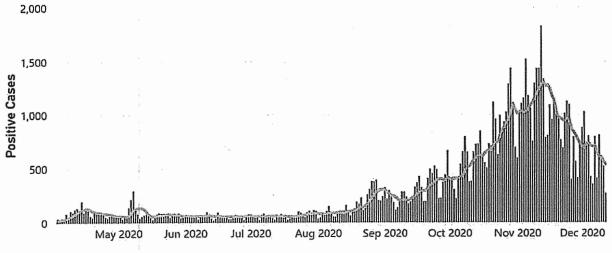
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Chairman Dockter: (4:13) Closed the hearing.

Carmen Hickle, Committee Clerk

HB 1323





Positive Cases @7-Day Moving Average

HB 1323 Jeff Hoverson House of Reps - Dist. 3

Coronavirus (COVID-19) statistics

Global

United States

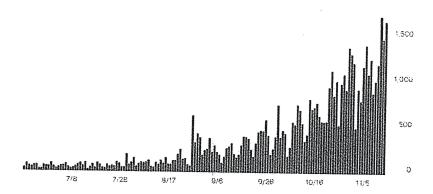
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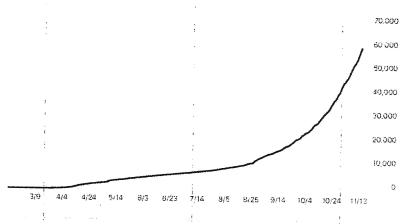
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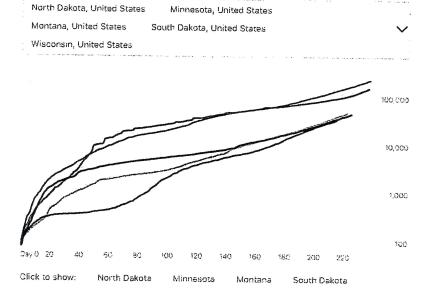


Cumulative cases



Compare cases by region

Starting the day 100+ cases were confirmed in each region



Mask mandake July 15

Coronavirus (COVID-19) statistics

Global

United States

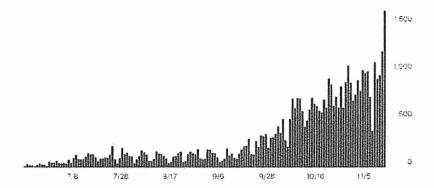
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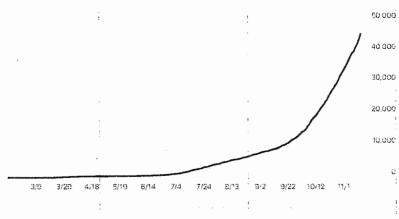
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Cumulative cases



Compare cases by region

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Wisconsin, United States

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Coronavirus (COVID-19) statistics

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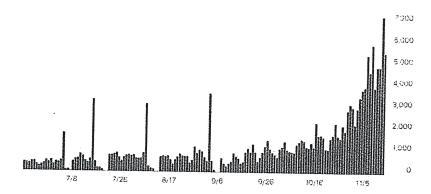
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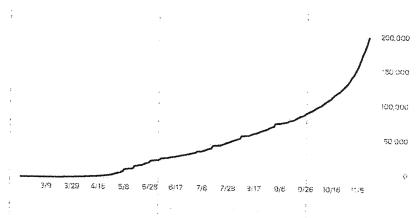
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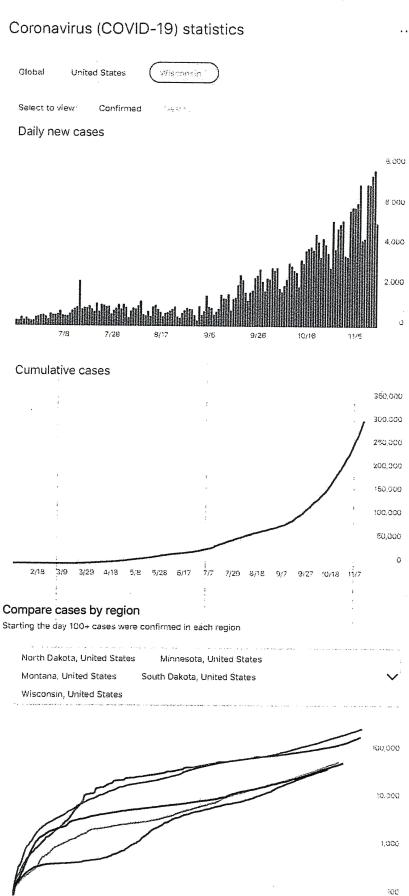
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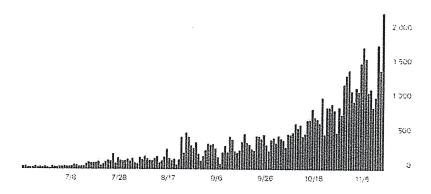
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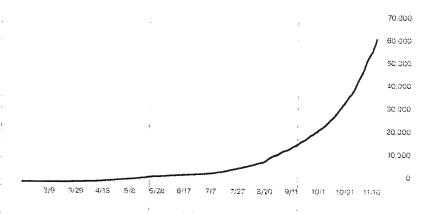
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Daily new cases



Cumulative cases



Compare cases by region

North Dakota, United States

Starting the day 100+ cases were confirmed in each region

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Minnesota, United States



Mask mandate 11/14/20

Coronavirus (COVID-19) statistics

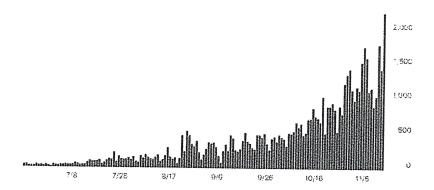
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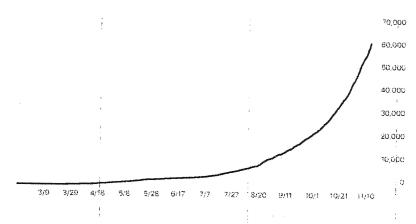
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Daily new cases



Cumulative cases



Compare cases by region

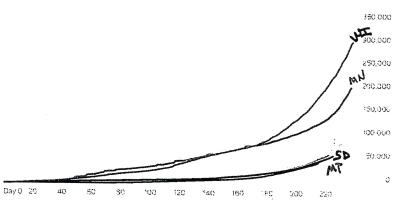
Starting the day 100+ cases were confirmed in each region

North Dakota, United States

Montana, United States

South Dakota, United States

Wisconsin, United States



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Testimony of Erik Johnson

February 4, 2021 House Political Subdivision Committee HB 1323 Rep. Jason Dockter, Chair

Mr. Chairman and Members of the Committee,

My name is Erik Johnson and I am appearing on behalf of the City of Fargo as its City Attorney. There are two main points that I would like to talk about. First, I would like to share with you some of the experience we've had in my city with mask usage by our residents and, in particular the experience with so-called "mandates". Second, I want to share some concerns about the "reach" of this bill and, perhaps, some unintended consequences.

I. <u>Mask Recommendations vs. Mask Mandates—Fargo's experience in 2020</u>.

- On April 7th, very early in the COVID-19 pandemic Fargo's Mayor Mahoney issued a
 "directive" that consisted of various strong recommendations to businesses, individuals
 and families to follow COVID-safe practices. Residents were "strongly advised" to
 follow CDC guidance of wearing protective face masks.
- On August 10th, the Fargo City Commissioners approved two motions pertaining to
 mask-wearing. The first strongly encouraged residents and visitors to maintain healthy
 handwashing, to disinfect surfaces and, when social distancing couldn't be maintained,
 to wear face masks within public places, common areas and private businesses. The
 second motion established required City employees to wear face masks when social
 distancing could not be maintained and it included exceptions for employees with
 medical issues preventing the wearing of masks, for single-person occupancy of vehicles
 among other things.

- On October 19th, Mayor Mahoney issued a "Mask Mandate". Although the order clearly stated that "...these measures are being mandated with the strongest possible recommendation, there is no penalty for non-compliance...." Nevertheless, the Mayor's order was expressed in terms "requiring" and "mandating" the wearing of masks.
- City officials observed that mask-compliance improved as a result of the Mayor's Mask Mandate. Some stores, for the first time since the pandemic "hit" North Dakota in March, posted signs requiring customers, as well as employees, to wear masks. We observed that the Mayor's mask "mandate" was strongly-enough worded that his order was taken seriously and we think that the Mayor's order, combined with actions of mayors and city councils throughout the state, substantially improved healthy practices in our city. We saw the power of leadership in our City—the notion that society will follow the instructions of their elected leaders, if those instructions are expressed in sufficiently urgent terms.
- To be sure, the Mayor's October mask mandate did not completely stop the spread of COVID—nobody has argued that it is a panacea. For example, there was a surge that occurred in November and early December and there was great worry that the surge in North Dakota would continue after the Christmas holiday season. Happily, the expected continuation of the surge has not occurred. The numbers for our city and for our state have dropped and we believe that the combination of leadership efforts throughout the state, including the imposing of urgent and forceful orders requiring appropriate mask-wearing, have had a very positive impact in controlling the spread of COVID.
- We observed that while the mask "directives" and "recommendations" created some support in society for mask-wearing, we think there is power in the word "mandate" even when there is not a criminal penalty for disobedience.

- Our City's experience with mask wearing orders has been shared by many other cities
 across our state. Mayors of 70% of North Dakota cities enacted a mask mandate in
 front of the Governor's declaring a mask mandate.
- Studies support benefits of mask-wearing. Scientists and experts have been studying society's response to this COVID crisis while it has been unfolding. Studies reported by Vanderbilt University and in the Journal of Econometrics have indicated that mandating face masks has reduced the spread of Covid-19. Our city's Health Department has supplied these reports to me and I would be happy to supply copies to committee members.
- Local Control. We believe that "local control" should be authorized. First, not every city is alike. Second, each city elects its leaders. What is a sound health-crisis practice in a town with 500 residents may not be sound in a town with 50,000 or more residents. More populated and congested cities—perhaps with larger and more-densely occupied businesses and industries—may have greater challenges in using social distancing as the only COVID-safety measure. This is not to say that an epidemic is not a matter for state-wide measures—a virus does not recognize political boundaries—but we think both state-wide powers and local powers should remain in place.
- II. HB 1323 too broadly-worded. My second point will be brief. House Bill 1323 goes too far in its restrictions on state and local government, some that we assume were not intended. This bill's prohibiting of use of a mask as a condition for employment will handcuff a city's ability to protect its workers from the mask-defiant behavior of other workers. Also, this bill would restrict a city's (or the state's) authority, say, from requiring its own employees--medical persons, fire fighters, police officers, hazardous material technicians and others to wear appropriate mask gear as safety equipment during the course of their duties.

HB 1323 House Political Subdivisions Committee Testimony of Erik Johnson, Fargo City Attorney City Attorney--Fargo Page 4

SUMMARY. The personal freedom that we enjoy in America is a remarkable thing. We can do and say almost anything that we want. This freedom is not without some limits. We have all heard the aphorism that "my freedom to throw my fist stops at your nose." In the case of COVID-19, if I cannot keep my distance from you, then my "fist" – the contents of my lungs—should stop before it hits your nose.

CONCLUSION. For the reasons as described, the City of Fargo OPPOSES House Bill 1323 and respectfully urges a DO NOT PASS recommendation on HB 1323 prohibiting mask mandates.

North Dakota House Political Subdivisions Committee Hearing: HB1323 February 4, 2021 Written Testimony of Edward F. Fogarty, III

Chairman Dockter and Vice-Chairman Pyle thank you for this opportunity to testify regarding HB1322. As you may know, much of the legislature is quite familiar with my medical practice, research and academic teaching endeavors in service to our state for the last 22 years since my initial internship with UND at Meritcare and subsequent faculty appointment with the University of North Dakota School of Medicine in the Department of Radiology while at Medcenter One. I currently have my own medical practice under MoPlatte Hyperbarics and MoPlatte Medical Arts through which I practice various lines of integrative medicine, diagnostic radiology and limited interventional radiology.

Our nation's Radiologists are leaders in Public Health and Translational Medicine as a Corps of the physicians of these Great United States of which our specialty has a particularly important role in national defense matters / biosecurity issues by being the sentinels of diseases such as COVID19 in their expression on various modalities of imaging such as CT scans, bedside ultrasound, MRI and plain radiography. With HB1323, I feel our workforce productivity is on the line and our social civility. I will provide various key scientific principles as to why our state government as a "representative whole" through the political process should be able to find the right balance between protecting our economy as well as our collective health in matters of infectious diseases through the great discourse that our democratic republic affords.

I am testifying as neutral and present my self as a trusted physician who's medical innovations have saved the lives of many North Dakotans since my departure from Omaha and Residency training at Creighton University. For your astute deliberations on this complex issue, I hope some of you will return to my many emails to you regarding some of these matters from 11/17/2020 into these first months of 2021. I did have private emails with Senator Tim Mathern regarding how best to implement Senate Rules on COVID19 precautions in the last months of 2020. At that time, I did propose to him many solutions. For the ultimate safety of his

colleagues at that time, I suggested complete off-site legislative work would be the safest, especially with the age bracket of our ND Senators. However, a working legislative body cannot perform its duties in full implementation from afar. Therefore, I did suggest that N95 RESPIRATORS which we use in medicine in our handling of tuberculosis patients would be the best split in costs and respiratory health matters translating from infectious disease protocols that we have long established in the ND medical community as we have had a longstanding higher than average number of citizens with to over the last 50 years.

Respirators are different of course from surgical masks that I use in my rural interventional radiology and pain management procedures here in Bismarck and elsewhere across the northern plains. I hold licensure in many states, but have actively practiced the most on the ground in ND and Nebraska and am recruited weekly to help in many other hospitals in lowa, PA, NJ, GA and OK among others to help the shorthanded situation we have in delivering pain management services and image guided breast biopsies or many other surgical procedures in concert with general surgeons and cardiothoracic surgeons (CT guided-lung biopsies) and other physicians such as our great array of Family Practice physicians who will refer to me or other radiologists in the state many thyroid biopsies and occasion abcess drainages.

Starting 45 years ago, the surgical and interventional proceduralists of the world of medicine began to look at the utility of surgical masks for post-operative infection rates. What the world's scientific and medical literature has shown as housed on the NIH Pub Med databases is frankly astounding. Maskless surgery with DECREASED SPEECH in the OR lowers post-operative infections. There was a landmark piece in the British Medical Journal in 2015 that also showed cloth masks in healthcare workers increases "influenza like infections" in those healthcare workers who wore them. SARS CoV1 and MERS research on cloth/surgical masks also seemed to indicate ineffectiveness. These references have already been given to various branches of North Dakota government.

In the fall of 2020, I signed and still agree with the tenets of the Great Barrington Declaration: https://gbdeclaration.org. This was a collaborative policy statement brought forth by the efforts of the American Institute for Economic Research: https://www.aier.org/article/aier-hosts-top-epidemiologists-authors-of-the-great-barrington-declaration/. As one of our national leaders in dealing with the epidemic of PTSD/TBI connected to our brave veterans through my research work with Dr. Paul G. Harch of the Louisiana State University and with my intimate knowledge of neurofunctional imaging techniques in Diagnostic Radiology, I believe we have wasted billions of dollars nationally on this debate over masks while not implementing sound adjunctives to improve our population's general health and well being. In the last quarter of 2020, ND State Agricultural Commissioner Doug Goehring and the committee for the CARES ACT granting process graciously funded a North Dakota Integrative Medicine project for the development of adjuncts such as hyperbaric oxygen therapy and nutraceutical approaches to "mask up" our very cells with agents that shut down viral replication. Mr. Goehring's position used to entail Ag and Labor by the way until a little over 50 years ago.

Our workforce across ND has many elements that lead to masks increasing the risk of infections over time as well as dropping performance in the more strenuous arenas of occupational life. The papers cited below are just the tip of the iceberg on how our long term economic output and health index will slide with increasing use of face masks. The most important of these from my Sports Medicine practice perspective is how blood chemistry changes with exercise while wearing a mask for COVID19 "protection" - surgical masks are switched every hour and this decreases the fomite effect. I am currently rehabbing the shoulder of an injured St. Mary's wrestler with mild hyperbaric techniques and glutathione amino acid precursors so he may participate in the state tournament in Fargo later this month, so these matters of bioengineering speedy recoveries and a more productive workforce are not just "ancedotal" - the Fargo Hyperbaric Center which I networked into existence has shown all of us in ND how powerful we are with the right mix of gases, physics and nutrients in the war on disease. Our mitochondria are the "agents of fracking DNA" for the defense of our cells

against foreign invaders such as viral illnesses, bacteria and the frequent injuries of occupational nature which I suffered this week as well in my medical/wellness practice here in ND. Our Congressional Delegation has moved mountains in these "bioengineering" of the recovery of our soldiers with the recent passage of a bill signed by Donald J. Trump for additional care innovations increasing the use of HBOT in PTSD for our veterans.

Our Hyperbaric Medicine colleagues in America and in Israel are showing in spectacular fashion how important increased oxygen gradients are to our immune systems for COVID19 and reversal of "immunosenence" or aging of the immune system. When we put a mask on for hours per day, we lose a small percentage of our daily "bread" of oxygen in service to our creative, professional, educational, occupational and general workplace endeavors. This is physiologically rendered by an increase of a small percentage of CO2 by increasing the dead space from gas exchange at the alveoli and the open atmosphere. We also have increased "drag" or friction in the system when masks are worn in athletes or hard working elements of our workforce in any industry. This added resistance decreases the oxygen gradient levels at the muscle, myocardial or brain cell level. The acid-base chemistry shift from slightly increased CO2 in the bloodstream impacts people variously but in those with preexisting pulmonary function declines from "farmers lung" or other occupational hazards sustained on the farm or ranch or in coal country or construction realms can lead to chronic headaches and and symptoms of pulmonary distress, and even anxiety that is recurrent with association to the workplace where it becomes a risk of formal PTSD as a psychiatric diagnossis.

Most importantly, regardless of all the physiological considerations above and others which you may freely ask me about after my testimony, I am gravely concerned about our children, including mine who are seniors at Bismarck High School. Some of you may have seen Ellie and Riley featured in a CBS Evening News piece by Norah O'Donnell this fall as a twin Homecoming King and Queen couple. This media piece really stresses the impactful stress release that many had in seeing some semblance of normalcy in the midst of this terrible pandemic of 2020-21. Our 3 pillars of government combined with the 4th estate of media/

journalism must work together better on these matters of the entire economic picture and impacts of policy on our state and its economic well-being which directly ties to our psychological well being. This has a major derivative impact into our healthcare systems of course. We have lost too many lives of the physically healthy in ND to pandemic despair, some of these children and young adults are reacting with suicide to the loss of employment and the stresses of parenting during this global event of PTSD brokered in large part by well meaning people trying to put out a fire of cytokine storming spreading across the globe like wild fire. We must forgive each other and our leadership in these missteps and forge a new set of protocols in governance to deal with the coming waves of the ever changing SARS-CoV2 virus.

Returning to my base foundational professional ties to Radiology, I do believe the best answer to this political crisis for our various governmental enterprises as well as many businesses is to consider implementation of more hygiene related protocols and germicidal devices at every threshold and doorway in North Dakota. In there early part of the pandemic, Columbia University's Radiological Sciences department published a revelation from the bandwidths of sunshine by showing that 222nm UVC wavelengths are a light form that is potent against many infectious agents including CORONAVIRUSES. These lights, if installed on a business by business basis or at "public access" points of government could provide a much better level of protection than masks alone or maskless interactions in my professional opinion. The installation of such lighting equipment in restaurants in the kitchen and over the salad bar and within pubs and bars themselves would attract the clientele on both sides of this debate, I believe. The purple/pink hues at our sports stadiums and in the locker rooms of our athletes would also help with the MRSA infection crisis that exists for our wrestlers and other contact sports athletes.

In summary, I believe through the political process that this committee and the entire legislature might be able to get behind this bill with the various pro-business and pro-health safety advocates who came together during the last biennium to unanimously support the house bill for UND to advance the science of hyperbaric medicine in regards to the acute

treatment of concussion in Fargo's Healing with Hyperbarics. I would hazard a guess that Gary

Tharaldson might become a great champion of 222 nm UVC light installations across the

Tharaldson Hospitality complex to reassure his hotel patrons that we are doing all we can to

decrease the spread of COVID19 via the understanding of the interplay of physics in human

biology. Thank you for your time and I will answer any questions as honestly as I can with my

Hippocratic knowledge base in service to humanity. I have no conflicts of interest in the realm

of UVC lighting, but obviously have a mission for increasing oxygen gradients in safe manners

across all American citizens for the enrichment of our mental capacities and work output.

Thank you again for the privilege of testifying today as there are other states in our

union that do not have such opportunities for their citizens. Prayers to all of you on this

committee and in the house in our collective endeavors of making ND Nice again while

pioneering new concepts in pandemic management at the public policy level.

Respectfully and thoughtfully with Hippocratic intent for our political body.

Ted Fogarty, MD

Radiological Science: https://pubmed.ncbi.nlm.nih.gov/?term=222+nm+covid

Exercise Science: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306735/pdf/main.pdf

Hyperbaric Science: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306735/pdf/main.pdf

Hyperbaric Medicine COVID19 Phase 1: https://www.clinicaltrials.gov/ct2/show/NCT04332081

OXYGEN/PRESSURE GRADIENTS: https://abc7ny.com/place/fairfield-county/

Begin forwarded message:

From: "Haugen, Shelley K." < skhaugen@nd.gov > Date: October 29, 2020 at 9:37:00 AM CDT

To: "Fogarty, Ted" < ted.fogarty@ndus.edu> Subject: RE: Science / surgical masks

Thanks Ted – this has been forwarded to the interim State Health Officer.

Shelley Haugen

Constituent Services

701.328.2208 • skhaugen@nd.gov • www.governor.nd.gov



From: Fogarty, Ted red.fogarty@ndus.edu Sent: Thursday, October 29, 2020 3:03 AM
To: -Info-Governor's Office governor@nd.gov

Cc: -Info-Dept. of Agriculture <ndda@nd.gov>; -Info-State Treasurer <treasurer@nd.gov>

Subject: Science / surgical masks

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe. "Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings—Personal Protective and Environmental Measures." Published in: "Emerging Infectious Diseases, Vol.26, No. 5, May 2020." (CDC.)

"Here, we review the evidence base on the effectiveness of nonpharmaceutical personal protective measures and environmental hygiene measures in non-healthcare settings and discuss their potential inclusion in pandemic plans. Although mechanistic studies [*] support the potential effect of hand hygiene or face masks, evidence from 14 randomized controlled trials of these measures did not support a substantial effect on transmission of laboratory-confirmed influenza. We similarly found limited evidence on the effectiveness of improved hygiene and environmental cleaning."

Here are quotes from pages 970-972 of the review: "In our systematic review, we identified 10 RCTs [randomized controlled trials] that reported estimates of the effectiveness of face masks in reducing laboratory-confirmed influenza virus infections in the community from literature published during 1946–July 27, 2018. In pooled analysis, we found no significant reduction in influenza transmission with the use of face masks..."

"Disposable medical masks (also known as surgical masks) are loose-fitting devices that were designed to be worn by medical personnel to protect accidental contamination of patient wounds, and to protect the wearer against splashes or sprays of bodily fluids... There is limited evidence for their effectiveness in preventing influenza virus transmission either when worn by the infected person for source control or when worn by uninfected persons to reduce exposure. Our systematic review found no significant effect of face masks on transmission of laboratory-confirmed influenza."

"In this review, we did not find evidence to support a protective effect of personal protective measures or environmental measures in reducing influenza transmission."

"We did not find evidence that surgical-type face masks are effective in reducing laboratory-confirmed influenza transmission, either when worn by infected persons (source control) or by persons in the general community to reduce their susceptibility..."

SOURCE:

https://wwwnc.cdc.gov/eid/article/26/5/19-0994 article

https://wwwnc.cdc.gov/eid/article/26/5/pdfs/19-0994.pdf

(Note the "wwwnc" — which is correct. It is not "www".)

FYI: check out <u>aircraftHBOT.org</u> for MCI / disaster plan....surgical masks are not Very effective in reducing spread of viruses 222nm UVC light arrays are probably the best/safest form of germicidal light waves that we have available which should be in all of our airports, hospitals, government buildings. Pretty cool / simple technology, just like hyperbaric vessels which are the only device that really works with severe covid19.

https://m.soundcloud.com/1150kknw/lift-your-spirits-radio-05-29-20-bernadette-pajer-hbot

Edward F. Fogarty, MD Assistant Professor UND SOM Department of Radiology Chairman, 2006-2019

 $\frac{https://www.usatoday.com/story/news/nation-now/2017/07/20/toddlers-brain-damage-reversed-treatment-after-near-drowning/496134001/$

https://www.lsuhsc.edu/newsroom/

Veterans%20Study%20Reports%20Reduction%20in%20Suicide%20Ideation%20after%20HBOT.html

Sent from my iPhone

On Sep 24, 2020, at 8:48 AM, Fogarty, Ted < ted.fogarty@ndus.edu > wrote:

"Furthermore, a mask often becomes a virus collector during repeated breathing activities, particularly when its outer surface is exposed to contaminated droplets [8,16]."

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7426537/

https://m.soundcloud.com/1150kknw/lift-your-spirits-radio-05-29-20-bernadette-pajer-

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2493952/pdf/annrcse01509-0009.pdf

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https://europepmc.org/article/med/7379387

https://onlinelibrary.wiley.com/doi/abs/10.1002/ccd.1810170306

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https://journals.sagepub.com/doi/pdf/10.1177/0141076815583167

Research Paper

Hyperbaric oxygen therapy increases telomere length and decreases immunosenescence in isolated blood cells: a prospective trial

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ABSTRACT

Introduction: Aging is characterized by the progressive loss of physiological capacity. At the cellular level, two key hallmarks of the aging process include telomere length (TL) shortening and cellular senescence. Repeated intermittent hyperoxic exposures, using certain hyperbaric oxygen therapy (HBOT) protocols, can induce regenerative effects which normally occur during hypoxia. The aim of the current study was to evaluate whether HBOT affects TL and senescent cell concentrations in a normal, non-pathological, aging adult population.

Methods: Thirty-five healthy independently living adults, aged 64 and older, were enrolled to receive 60 daily HBOT exposures. Whole blood samples were collected at baseline, at the 30th and 60th session, and 1-2 weeks following the last HBOT session. Peripheral blood mononuclear cells (PBMCs) telomeres length and senescence were assessed.

Results: Telomeres length of T helper, T cytotoxic, natural killer and B cells increased significantly by over 20% following HBOT. The most significant change was noticed in B cells which increased at the 30th session, 60th session and post HBOT by 25.68%±40.42 (p=0.007), 29.39%±23.39 (p=0.0001) and 37.63%±52.73 (p=0.007), respectively.

There was a significant decrease in the number of senescent T helpers by -37.30%±33.04 post-HBOT (P<0.0001). T-cytotoxic senescent cell percentages decreased significantly by -10.96%±12.59 (p=0.0004) post-HBOT. In conclusion, the study indicates that HBOT may induce significant senolytic effects including significantly increasing telomere length and clearance of senescent cells in the aging populations.

INTRODUCTION

Aging can be characterized by the progressive loss of physiological integrity, resulting in impaired functions and susceptibility for diseases and death. This biological deterioration is considered a major risk factor for cancer, cardiovascular diseases, diabetes and Alzheimer's disease among others. At the cellular level, there are two key hallmarks of the aging process: shortening of telomere length and cellular senescence [1].

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Telomeres are tandem nucleotide repeats located at the end of the chromosomes which maintain genomic stability. Telomeres shorten during replication (mitosis) due to the inherent inability to fully replicate the end part of the lagging DNA strand [2]. Telomere length (TL), measuring between 4 to 15 kilobases, gradually shorten by ~20-40 bases per year and is associated with different diseases, low physical performance and cortical thinning of the brain [3–5]. When TL reaches a critical length, cells cannot replicate and progress to senescence or programmed cell death [6]. Goglin et al. demonstrated that adults with shorter TLs have increased mortality rates [7]. Shortened TLs can be a direct inherited trait, but several environmental factors have also been associated with shortening TL including stress, lack of physical endurance activity, excess body mass index, smoking, chronic inflammation, vitamins deficiency and oxidative stress [2, 8, 9].

Cellular senescence is an arrest of the cell cycle which can be caused by telomere shortening [10], as well as other aging associated stimuli independent of TL such as non-telomeric DNA damage [1]. The primary purpose of senescence is to prevent propagation of damaged cells by triggering their elimination via the immune system. The accumulation of senescent cells with aging reflects either an increase in the generation of these cells and/or a decrease in their clearance, which in turn aggravates the damage and contributes to aging [1].

A growing body of research has found several pharmacological agents that can reduce the telomere shortening rate [11, 12]. Several lifestyle interventions including endurance training, diets and supplements targeting cell metabolism and oxidative stress have reported relatively small effects (2-5%) on TL³, [2, 8, 9].

Hyperbaric oxygen therapy (HBOT) utilizes 100% oxygen in an environmental pressure higher than one absolute atmospheres (ATA) to enhance the amount of oxygen dissolved in body's tissues. intermittent hyperoxic exposures, using certain HBOT protocols, can induce physiological effects which normally occur during hypoxia in a hyperoxic environment, the so called hyperoxic-hypoxic paradox [13-16]. In addition, it was recently demonstrated that HBOT can induce cognitive enhancements in healthy aging adults via mechanisms involving regional changes in cerebral blood flow [17]. On the cellular level, it was demonstrated that HBOT can induce the expression of hypoxia induced factor (HIF), vascular endothelial growth factor (VEGF) and sirtuin (SIRT), stem cell proliferation, mitochondrial biogenesis, angiogenesis and neurogenesis [18]. However, no study to date has

examined HBOT's effects on TL and senescent cell accumulation.

The aim of the current study was to evaluate whether HBOT affects TL and senescence-like T-cells population in aging adults.

RESULTS

Thirty-five individuals were assigned to HBOT. Five patients did not complete baseline assessments and were excluded. All 30 patients who completed baseline evaluations completed the interventions. Due to the low quality of blood samples (low number of cells or technician error), four patients were excluded from the telomere analysis and 10 patients from senescent cell analysis (Figure 1). The baseline characteristics and comparison of the cohorts following exclusion of the patients are provided in Table 1. There were no significant differences between the three groups (Table 1).

Telomere length

Compared to the baseline, the T-helper telomere lengths were significantly increased at the 30^{th} session and post-HBOT by 21.70 ± 40.05 (p=0.042), $23.69\%\pm39.54$ (p=0.012) and 29.30 ± 38.51 (p=0.005), respectively (Figure 2). However, repeated measures analysis shows a non-significant trend (F=4.663, p=0.06, Table 2 and Figure 2).

Compared to baseline, telomere lengths of B cells increased significantly at the 30^{th} session, 60^{th} session and post-HBOT by $25.68\%\pm40.42$ (p=0.007), $29.39\%\pm23.39$ (p=0.0001) and $37.63\%\pm52.73$ (p=0.007), respectively (Figure 2). Repeated measures analysis shows a significant within-group effect (F=0.390, p=0.017, Table 2 and Figure 2).

Compared to baseline, natural killer cells telomer lengths significantly increased at the 30^{th} session (p=0.045) and at the 60^{th} session by $20.56\% \pm 33.35$ (p=0.013). Post-HBOT, telomere lengths increased by $22.16\% \pm 44.81$ post-HBOT (p=0.06, Table 2 and Figure 2). Repeated measures analysis indicates that there was no additional significant effect after the 30^{th} session (F=0.812, p=0.391).

Compared to baseline, cytotoxic T-cells had a non-significant increase at the 30^{th} session by $18.29\% \pm 45.62$ (p=0.11), followed by a significant increase of $24.13\% \pm 40.88$ at the 60^{th} session (p=0.0019) and $19.59\% \pm 33.98$ post-HBOT (p=0.023). Repeated measures analysis indicates that there was no additional significant effect after the 30^{th} session (F=1.159, p=0.310, Table 2 and Figure 2).

Senescent cells

There was a non-significant decrease in the number of senescent T-helpers at the 30^{th} session and 60^{th} session by -19.66%±80.03 (p=0.09) and -11.67%±94.30 (p=0.20) respectively. However, there was a significant drop in the number of senescent T helpers by -37.30%±33.04 post-HBOT (P<0.0001, Figure 3). Repeated measures analysis showed a significant continuous effect even after the 30^{th} session, with a within-group effect (F=8.547, p=0.01, Table 2 and Figure 3).

T-cytotoxic senescent cell percentages decreased significantly by $-12.21\%\pm8.74$ (P<0.0001) at the 30th HBOT session, $-9.81\%\pm9.50$ at the 60th HBOT session (0.002) and $-10.96\%\pm12.59$ (p=0.0004) post-HBOT (Table 2 and Figure 3). Repeated measures analysis shows a significant continuous effect even after the 30th session, with a within-group effect (F=6.916, p=0.018, Table 2).

HIF-1alpha

HIF-1alpha levels were increased from 10.54 ± 3.39 to 19.71 ± 3.39 at the 60^{th} session (p=0.006) where 2 weeks post HBOT levels of 16.81 ± 7.65 were not significantly different from baseline (p=0.16).

DISCUSSION

In this study, for the first time in humans, it was found that repeated daily HBOT sessions can increase PBMC telomere length by more than 20% in an aging population, with B cells having the most striking change. In addition, HBOT decreased the number of senescent cells by 10-37%, with T helper senescent cells being the most effected.

A substantial number of associations between telomere length and lifestyle modifications have been observed. This has led to several interventional studies which included diet, supplements (such as omega-3, and walnuts among others), physical activity, stress management and social support. A two year trial conducted on cognitively healthy elderly adults, using a diet rich in walnuts, showed a non-significant trend to preserve telomere length when compared to a control diet [19]. In another study which evaluated the effect of a twelve week low frequency explosive-type resistance training in elderly people, telomere length was better preserved in the intervention group without a significant increase [20]. A recent study found that aerobic endurance training or high intensity interval training for six month increased telomere length up to 5% [21]. Additional weight loss, yoga and stress management techniques failed to show significant telomere length changes [22-25]. However, most of these studies have shown significant correlations between antioxidant activity and telomerase activity [22–25].

While many genetic and environmental factors are associated with telomere shortening, the most common suggest mechanism is oxidative stress. Oxidative stress can occur from imbalances between the production of

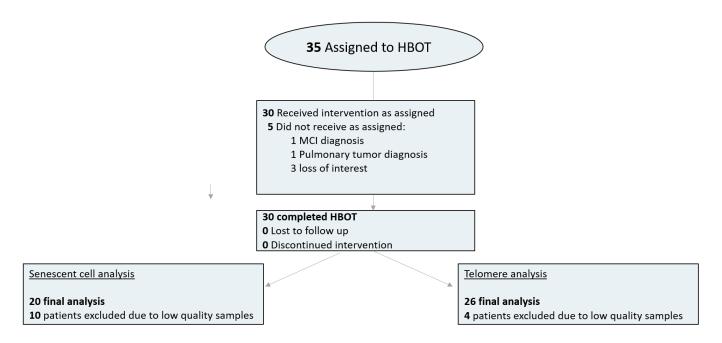


Figure 1. Patient flowchart.

Table 1. Baseline characteristics.

	нвот	Telomere analysis	Senescent analysis	P-value
N	30	25 (83.3%)	20 (66.6%)	
Age (years)	68.41±13.2	67.56±14.35	66.70 ± 16.00	0.917
BMI	26.77 ± 3.20	26.89 ± 3.34	27.14±3.81	0.946
Males	16 (53.3%)	13 (52.0%)	10 (50.0%)	0.987
Females	14 (47.7%)	12 (48.0%)	10 (50.0%)	0.987
Complete blood count				
Hemoglobin	6.33±1.25	6.57±1.15	6.58±1.29	0.707
White blood cells	14.02 ± 1.40	13.92 ± 1.35	13.97±1.49	0.969
%PBMC	39.96±6.75	39.25±6.64	38.59±6.63	0.774
Platelets	239.87±1.39	244.08±43.0	254.05±41.4	0.559
Chronic medical conditions				
Atrial fibrillation	4 (13.3%)	4 (16.0%)	2 (10.0%)	0.841
Hypothyroidism	4 (13.3%)	4 (16.0%)	3 (15.8%)	0.956
Obstructive sleep apnea	4 (13.3%)	4 (16.0%)	3 (15.0%)	0.961
Asthma	1 (3.3%)	1 (4.0%)	0	0.680
ВРН	7 (23.3%)	5 (20.0%)	6 (30.0%)	0.733
GERD	3 (10%)	2 (8.0%)	2 (10.0%)	0.961
Osteoporosis	5 (16.7%)	5 (20.0%)	4 (20.0%)	0.936
Rheumatic arthritis	1 (3.3%)	0	1 (5.0%)	0.561
Osteoarthritis	7 (23.3%)	4 (16.0%)	5 (25.0%)	0.755
Diabetes mellitus	3 (10%)	3 (12.0%)	2 (10.0%)	0.966
Hypertension	7 (23.3%)	5 (20.0%)	5 (25.0%)	0.918
Dyslipidemia	16 (53.3%)	14 (56.0%)	12 (60.0%)	0.897
Ischemic heart disease	2 (6.7%)	1 (4.0%)	2 (10.0%)	0.725
History of smoking	10 (33.3%)	8 (32.0%)	7 (35.0%)	0.978
Chronic medications		•	•	
Anti-aggregation	8 (26.7%)	6 (24.0%)	5 (25.0%)	0.974
ACE-Inhibitors/ARB blockers	6 (20%)	6 (24.0%)	6 (30.0%)	0.720
Beta blockers	5 (16.7%)	5 (20.0%)	3 (15.0%)	0.901
Calcium blockers	3 (10%)	3 (12.0%)	2 (10.0%)	0.966
Alpha blockers	7 (23.3%)	5 (20.0%)	6 (30.0%)	0.733
Diuretics	2 (6.7%)	1 (4.0%)	1 (5.0%)	0.906
Statins	10 (33.3%)	9 (36.0%)	7 (35.0%)	0.978
Oral hypoglycemic	1 (3.3%)	1 (4.0%)	1 (5.0%)	0.958
Bisphosphonates	1 (3.3%)	1 (4.0%)	1 (5.0%)	0.958
Proton pump inhibitors	3 (10%)	3 (12.0%)	3 (15.0%)	0.726
Hormones	3 (10%)	3 (12.0%)	2 (10.0%)	0.966
Benzodiazepines	3 (10%)	2 (8.0%)	1 (5.0%)	0.816
SSRI	5 (16.7%)	5 (20.0%)	3 (15.0%)	0.990

reactive oxygen species (ROS) and cellular scavengers. Telomeres are highly sensitive to oxidative DNA damage, which can induce telomere shortening and dysfunction [26]. The association between oxygen

and/or oxidative stress and telomere length has been debated for the past several decades. Human cell culture studies consistently show that mild oxidative stress accelerates telomere shortening, whereas antioxidants

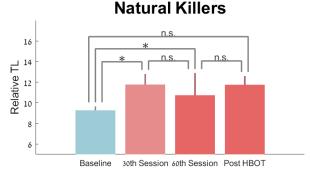
and free radical scavengers decrease shortening rates and increase the cellular proliferative lifespan [27]. Several clinical studies on pathological conditions (such as diabetes, inflammatory diseases, Parkinson's disease) have shown correlations between oxidative stress markers, reactive oxygen species scavengers levels and telomere length [28]. However, healthy individuals did not show similar results [29].

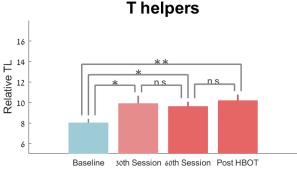
Exposing cell cultures to a hyperbaric environment has been previously suggested to induce significant oxidative stress and premature cells senescence [30]. However, this was based on isolated cells grown in a hyperbaric incubator and not on the complex biological system of humans as in this study. Similar to the current study, a previous prospective one-year observational study in divers exposed to intense hyperbaric oxygen, showed significant telomere elongation in leukocytes [31]. As used in the current study, the HBOT protocol utilizes the effects induced by repeated intermittent hyperoxic exposures, the so called hyperoxic hypoxic paradox [13, 18]. These intermittent hyperoxic exposures induce an adaptive response which includes increased upregulation of antioxidants genes [32] and production of antioxidants/scavengers that adjust to the increased ROS generation causing the ROS/scavenger ratio to gradually becomes similar to the ratio under a normal oxygen environment. However, because the scavenger elimination half-life $(T_{1/2})$ is significantly

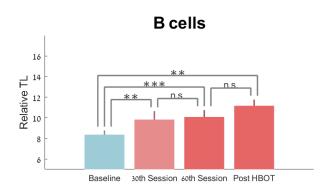
longer than the $T_{1/2}$ of ROS, upon return to normoxia, following repeated hyperoxic exposures, there are significantly higher levels of scavengers and increased antioxidant activity [13, 18]. Thus, similar to physical exercise and caloric restriction, a daily repeated HBOT protocol can induce the hormesis phenomenon. Single exposures increase ROS generation acutely, triggering the antioxidant response, and with repeated exposures, the response becomes protective [13, 18].

Additionally, intermittent hyperoxic exposures induce many of the physiological responses that occur during hypoxia [13]. HBOT induces the release of transcription factors called hypoxic induced factors (HIF) and increase their stability and activity [14]. In turn, HIF induces a cellular cascade including vascular endothelial growth factor and angiogenesis induction, mitochondria biogenesis, stem cells mobilization and SIRT1 increased activity [18]. Our study confirms increased HIF expression is induced by repetitive HBOT exposures, which gradually decreases towards normalization of HIF levels at nonmonic environment.

Currently, many interventions that genetically or pharmacologically (senolytic drugs) remove senescent cells have been developed in animal models and are waiting for safety and efficacy evaluations in humans [33]. The current study suggests a non-pharmacological method, clinically available with well-established safety







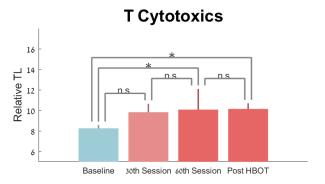


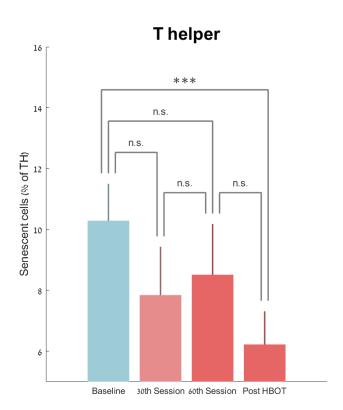
Figure 2. Telomere length changes with HBOT. Mean+SEM *p<0.05, **p<0.01, ***p<0.001.

Table 2. Telomere length and senescent cell changes post-HBOT.

	Absolute changes			Relative changes (%)				Repeated measures
	Baseline	30th Session	60th Session	Post HBOT	30th session	60th session	Post-HBOT	F (p)
PBMC								
PBMC ((N=25)	2.55±0.53			-0.15±0.40			-4.91±16.70	1.987 (t) 0.09
PBMC (N=20)	2.50±0.53			-0.13±0.31			-4.21±11.99	1.810 (t) 0.07
Relative telom	eres length (N=2	25)						
Natural killer	9.27±1.91	11.77±5.14 (0.045)	10.73±2.73 (0.013)	11.75±4.22 (0.06)	25.02±51.42	20.56±33.35	22.16±44.81	0.812 (0.391)
B-cells	8.36±2.02	10.22±3.04 (0.007)	11.23±3.58 (0.0001)	11.17±2.98 (0.007)	25.68±40.42	29.39±23.39	37.63±52.73	7.390 (0.017)
T Helper	8.04±1.82	9.92±3.68 (0.042)	9.63±2.17 (0.012)	10.20±2.77 (0.005)	21.70±40.05	23.69±39.54	29.30±38.51	4.663 (0.063)
T Cytotoxic	8.26±1.54	9.83±4.08 (0.11)	10.08±3.33 (0.019)	10.15±2.74 (0.023)	18.29±45.62	24.13±40.88	19.59±33.98	1.159 (0.310)
Senescent cells	s (% of T cells) (N=20)						
T Helper	10.29±5.42	7.84±7.09 (0.09)	8.51±7.45 (0.20)	6.22±4.88 (< 0.0001)	-19.66±80.03	-11.67±94.30	-37.30±33.04	8.548 (0.01)
T Cytotoxic	52.19±21.07	45.53±19.91 (< 0.0001)	45.45±18.81 (0.002)	46.59±21.91 (0.0004)	-12.21±8.74	-9.81±9.50	-10.96±12.59	6.916 (0.018)

P-values shown in () compared to baseline.

P-values in bold < 0.05.



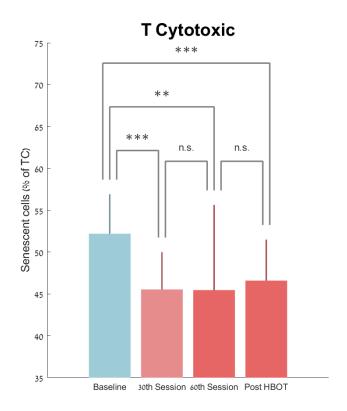


Figure 3. Senescent cell changes with HBOT. Mean+SEM *p<0.05, **p<0.01, ***p<0.001.

profile, for senescent cells populations decrease. Our protocol included 60 sessions of 100% oxygen at 2 ATA including three air breaks during each session to utilize the hyperoxic hypoxic paradox and minimize the risk of oxygen toxicity. Interestingly, both TL and senescent cell reduction peaked at the 30th session. However, the dose response curve related to the applied pressure, time and number of HBOT exposures and its relation to HIF expression and its related regenerative effects are still not fully understood and further studies are needed to find the optimal HBOT protocols.

Hyperbaric oxygen therapy is a well-established treatment modality for non-healing wounds, radiation injuries as well as different hypoxic or ischemic events (such as carbon monoxide toxicity, infections, etc). In recent years, a growing evidence from pre-clinical as well as clinical trials demonstrate the efficacy of HBOT for neurological indications including idiopathic sudden sensorineural hearing loss [34], post stroke and post traumatic brain injury [35–41], central sensitization syndrome such as fibromyalgia syndrome [42, 43] and age related cognitive decline [17] and animal models of Alzheimer's disease [44]. For the first time, the current study aimed to evaluate the physiological effect on the cellular level in aging humans without any functional limiting disease.

Study limitations

The current study has several limitations and strengths to consider. First, the limited sample size has to be taken into account. Second, the lack of control group. However, the study suggests impressive results on TL and senescent cell clearance, which weren't observed in other interventions. Moreover, the baseline telomere length values of our cohort match the expected values for the aging population [45-47]. Third, the duration of the effect has yet to be determined in long-term follow-ups. Fourth, telomerase activity was not evaluated due to the method chosen for blood preservation and evaluation. Nevertheless, several strengths should be stressed. In this study, CD28 was used as a biomarker for senescent cells whereas CD57 was not available as a confirmatory marker for T cell senescence. Biomarkers were assessed on specific leukocytes populations rather than using the entire PBMCs as one group. The isolated HBOT effect was measured and participants were monitored for not making any lifestyle changes (such as nutrition and exercise), medications or any other intervention that may have acted as possible confounders.

In summary, the study indicates that HBOT can induce significant senolytic effects, including significant increased telomere length and clearance of senescent cells in aging populations.

MATERIALS AND METHODS

Subjects

Thirty-five adults without pathological cognitive declines, aged 64 and older, who lived independently in good functional and cognitive status, were enrolled. The study was performed between 2016-2020 in the Shamir (Assaf-Harofeh) Medical Center, Israel. Included patients did not have cardiac or cerebrovascular ischemia histories for the last year prior to inclusion. Exclusion criteria included: previous treatment with HBOT for any reason during the last three months, any history of malignancy during the last year, any pathological cognitive decline, severe chronic renal failure (GFR <30), uncontrolled diabetes mellitus (HbA1C>8, fasting glucose>200), immunosuppressants, MRI contraindications (including BMI>35), active smoking or pulmonary diseases.

Study design

The study protocol was approved by Institutional Review Board of the Shamir Medical Center, Israel. The study was performed as a prospective clinical trial. After signing an informed consent and undergoing a baseline evaluation, the subjects were assigned to HBOT. Measurement points were evaluated at baseline, half-point of the treatment protocol (30th session), the day of the last HBOT session and 1-2 weeks after the HBOT.

The study cohort included only patients treated by HBOT, which is part of a larger cohort of normal ageing population studied at the Shamir medical center, Israel (NCT02790541 [17]).

Interventions

The HBOT protocol was administrated in a Multiplace Starmed-2700 chamber (HAUX, Germany). The protocol comprised of 60 daily sessions, five sessions per week within a three-month period. Each session included breathing 100% oxygen by mask at 2ATA for 90 minutes with 5-minute air breaks every 20 minutes. Compression/decompression rates were 1 meter/minute. During the trial, neither lifestyle and diet changes, nor medications adjustments were allowed.

Blood samples

Whole blood samples were collected into EDTA tubes using a standard technique, at baseline, at the half-point of the HBOT protocol (30th session), the day of the last HBOT session (60th session) and 1-2 weeks following the last HBOT session.

Peripheral blood mononuclear cells (PBMCs) isolation

Whole blood was diluted using phosphate buffered saline (PBS). Density gradient separation was performed using Leucosep tubes filled with Lymphoprep. The tubes were then centrifuged at $1000\times g$ for 10 min at 25° C degrees. Following centrifugation, the cell layers (buffy coat) were immediately collected via pipette and transferred to 50 mL conical centrifuge tubes, resuspended with sufficient 1X PBS to a volume of 50 mL and centrifuged at $300\times g$ for 10 min at 25° C degrees. Following removal of the supernatant, each sample was labeled.

Telomere length

Telomeres were labelled according to the Dako PNA/FITC kit protocol (Code K5327). On a single cell suspension consisting of a mixture of PBMCs (sample cells) and TCL 1301 cell line (control cells), the DNA was denatured for 10 minutes at 82° C in a microcentrifuge tube either in the presence of hybridization solution without probe or in hybridization solution containing the fluorescein-conjugated PNA telomere probe. The hybridization took place in the dark at room temperature (RT) overnight. The hybridization was followed by two 10-minute post-hybridization washes with a wash solution at 40° C. The sample was then labeled with CD4+, CD8+, CD3+, CD19+ and CD56+ conjugated antibodies in an appropriate buffer for further flow cytometric analysis [48, 49]. Each sample was run in duplicate. Following flow cytometric analysis, the relative telomere length (RTL) was calculated for CD3+/CD4+ (T-helper), CD3+/CD8+ (T-cytotoxic), CD3+/CD56+ (natural killer) and CD19+ (B-cells). The RTL value was calculated as the ratio between the telomere signal of each sample and the control cell (TCL 1301 cell line) with correction for the DNA index of G0/1 cells. Sample cells and control cells were analyzed separately for DNA ploidy using propidium iodide staining to standardize the number of telomere ends per cell and thereby telomere length per chromosome. See Figure 4 for FACS analysis example.

Immunophenotyping

Percentages of CD3+CD4+CD28-null T cells (senescent T helpers) and CD3+CD8+CD28-null T cells (senescent T cytotoxics) were determined by flow-cytometric analysis. PBMC were stained with VioBlue conjugated anti-CD3, Viogreen conjugated anti-CD8, PE-VIO 770A conjugated anti-CD4 and APC-VIO 770A anti-CD28 antibodies (Miltenyi Biotec). Cells were analyzed with a MACSQuant Flow Cytometer (Miltenyi Biotec). The percentage of CD28null T cells within the CD4+ or CD8+ T cell population was then calculated.

Hypoxia induced factor (HIF-1alpha)

Intracellular HIF1a staining was performed with APC conjugated anti-HIF1a antibody or corresponding Isotype Control (R&D systems) following fixation and permeabilization (Life Technologies). Cells were analyzed with a MACSQuant Flow Cytometer (Miltenyi Biotec) and the percentage of HIF1a expressing PBMCs, was determined.

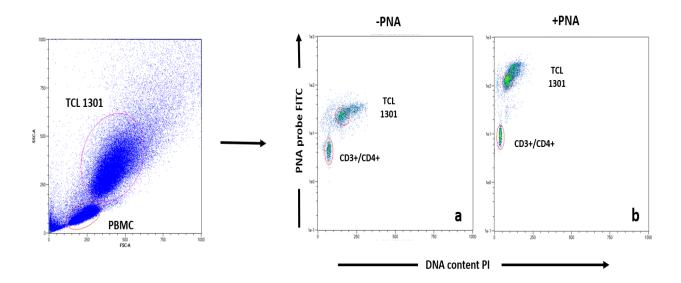


Figure 4. Example of Flow Fish data analysis of T helper subpopulation. Each blood sample was either stained with PNA probe (**b**) or without (**a**), following by antibodies staining (CD3, CD4, CD8, CD16, CD19), before data acquisition.

Statistical analysis

Unless otherwise specified, continuous data were expressed as means ± standard-deviation. The normal distribution for all variables was tested using the Kolmogorov-Smirnov test. One-way ANOVA was performed to compare variables between and within the three groups at baseline.

Categorical data is expressed in numbers and percentages and compared by chi-square tests. Univariate analyses were performed using Chi-Square/Fisher's exact test to identify significant variables (P<0.05).

To evaluate HBOT's effects, a repeated measures ANOVA model was used to test the main within-subject effect. Post hoc tests on the means was conducted to test for time differences using t tests with a Bonferroni correction.

AUTHOR CONTRIBUTIONS

All authors contributed substantially to the preparation of this manuscript. HY, HA, ES were responsible for protocol design. HA, ZY, BY, ES, DKM were responsible for patients' recruitment. YH, AHR, SM, YY, SM, ZR, ESW, HA, DKM, SG, BGR, DG, HY, AHR, FG, LE, PN, DK, FM, ZY, BY were responsible for data acquisition. HY, HA. and ES were responsible for data analysis. All authors interpreted the data. HY, HA, CM, and ES wrote the manuscript. All authors revised and finalized the manuscript.

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CONFLICTS OF INTEREST

AH, BY, ZY work for AVIV Scientific LTD. ES is a shareholder at AVIV Scientific LTD.

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REFERENCES

1. López-Otín C, Blasco MA, Partridge L, Serrano M, Kroemer G. The hallmarks of aging. Cell. 2013; 153:1194-217.

https://doi.org/10.1016/j.cell.2013.05.039 PMID:23746838

- 2. Tsoukalas D, Fragkiadaki P, Docea AO, Alegakis AK, Sarandi E, Vakonaki E, Salataj E, Kouvidi E, Nikitovic D, Kovatsi L, Spandidos DA, Tsatsakis A, Calina D. Association of nutraceutical supplements with longer telomere length. Int J Mol Med. 2019; 44:218-26. https://doi.org/10.3892/ijmm.2019.4191 PMID:31115552
- Starkweather AR, Alhaeeri AA, Montpetit A, Brumelle J, Filler K, Montpetit M, Mohanraj L, Lyon DE, Jackson-Cook CK. An integrative review of factors associated with telomere length and implications biobehavioral research. Nurs Res. 2014; 63:36-50. https://doi.org/10.1097/NNR.0000000000000009 PMID:24335912
- 4. Puhlmann LM, Valk SL, Engert V, Bernhardt BC, Lin J, Epel ES, Vrticka P, Singer T. Association of short-term change in leukocyte telomere length with cortical thickness and outcomes of mental training among healthy adults: a randomized clinical trial. JAMA Netw Open. 2019; 2:e199687. https://doi.org/10.1001/jamanetworkopen.2019.9687 PMID:31553468
- 5. Åström MJ, von Bonsdorff MB, Perälä MM, Salonen MK, Rantanen T, Kajantie E, Simonen M, Pohjolainen P, Haapanen MJ, Guzzardi MA, Iozzo P, Kautiainen H, Eriksson JG. Telomere length and physical performance among older people-the helsinki birth cohort study. Mech Ageing Dev. 2019; 183:111145. https://doi.org/10.1016/j.mad.2019.111145 PMID:31491428
- 6. Xie Z, Jay KA, Smith DL, Zhang Y, Liu Z, Zheng J, Tian R, Li H, Blackburn EH. Early telomerase inactivation accelerates aging independently of telomere length. Cell. 2015; 160:928-39. https://doi.org/10.1016/j.cell.2015.02.002 PMID:25723167
- 7. Goglin SE, Farzaneh-Far R, Epel ES, Lin J, Blackburn EH, Whooley MA. Change in leukocyte telomere length predicts mortality in patients with stable coronary heart disease from the heart and soul study. PLoS One. 2016; 11:e0160748.

https://doi.org/10.1371/journal.pone.0160748 PMID:27783614

- 8. Armanios M. Telomeres and age-related disease: how telomere biology informs clinical paradigms. J Clin Invest. 2013; 123:996-1002.
 - https://doi.org/10.1172/JCI66370 PMID:23454763
- Richards JB, Valdes AM, Gardner JP, Paximadas D, Kimura M, Nessa A, Lu X, Surdulescu GL, Swaminathan R, Spector TD, Aviv A. Higher serum vitamin D concentrations are associated with longer leukocyte telomere length in women. Am J Clin Nutr. 2007; 86:1420-25.

https://doi.org/10.1093/ajcn/86.5.1420 PMID:17991655

 Bodnar AG, Ouellette M, Frolkis M, Holt SE, Chiu CP, Morin GB, Harley CB, Shay JW, Lichtsteiner S, Wright WE. Extension of life-span by introduction of telomerase into normal human cells. Science. 1998; 279:349–52.

https://doi.org/10.1126/science.279.5349.349 PMID:9454332

11. Townsley DM, Dumitriu B, Liu D, Biancotto A, Weinstein B, Chen C, Hardy N, Mihalek AD, Lingala S, Kim YJ, Yao J, Jones E, Gochuico BR, et al. Danazol treatment for telomere diseases. N Engl J Med. 2016; 374:1922–31.

https://doi.org/10.1056/NEJMoa1515319 PMID:27192671

12. Coutts F, Palmos AB, Duarte RR, de Jong S, Lewis CM, Dima D, Powell TR. The polygenic nature of telomere length and the anti-ageing properties of lithium. Neuropsychopharmacology. 2019; 44:757–65.

https://doi.org/10.1038/s41386-018-0289-0 PMID:30559463

 Cimino F, Balestra C, Germonpré P, De Bels D, Tillmans F, Saija A, Speciale A, Virgili F. Pulsed high oxygen induces a hypoxic-like response in human umbilical endothelial cells and in humans. J Appl Physiol (1985). 2012; 113:1684–89.

https://doi.org/10.1152/japplphysiol.00922.2012 PMID:23042909

14. Sunkari VG, Lind F, Botusan IR, Kashif A, Liu ZJ, Ylä-Herttuala S, Brismar K, Velazquez O, Catrina SB. Hyperbaric oxygen therapy activates hypoxia-inducible factor 1 (HIF-1), which contributes to improved wound healing in diabetic mice. Wound Repair Regen. 2015; 23:98–103.

https://doi.org/10.1111/wrr.12253 PMID:25532619

 Milovanova TN, Bhopale VM, Sorokina EM, Moore JS, Hunt TK, Hauer-Jensen M, Velazquez OC, Thom SR. Hyperbaric oxygen stimulates vasculogenic stem cell growth and differentiation in vivo. J Appl Physiol (1985). 2009; 106:711–28.

https://doi.org/10.1152/japplphysiol.91054.2008 PMID:19023021

 Yang Y, Wei H, Zhou X, Zhang F, Wang C. Hyperbaric oxygen promotes neural stem cell proliferation by activating vascular endothelial growth factor/extracellular signal-regulated kinase signaling after traumatic brain injury. Neuroreport. 2017; 28:1232–38.

https://doi.org/10.1097/WNR.00000000000000901 PMID:28953090 17. Hadanny A, Daniel-Kotovsky M, Suzin G, Boussi-Gross R, Catalogna M, Dagan K, Hachmo Y, Abu Hamed R, Sasson E, Fishlev G, Lang E, Polak N, Doenyas K, et al. Cognitive enhancement of healthy older adults using hyperbaric oxygen: a randomized controlled trial. Aging (Albany NY). 2020; 12:13740–61. https://doi.org/10.18632/aging.103571

https://doi.org/10.18632/aging.103571 PMID:32589613

18. Hadanny A, Efrati S. The hyperoxic-hypoxic paradox. Biomolecules. 2020; 10:958.

https://doi.org/10.3390/biom10060958 PMID:32630465

19. Freitas-Simoes TM, Cofán M, Blasco MA, Soberón N, Foronda M, Serra-Mir M, Roth I, Valls-Pedret C, Doménech M, Ponferrada-Ariza E, Calvo C, Rajaram S, Sabaté J, et al. Walnut consumption for two years and leukocyte telomere attrition in mediterranean elders: results of a randomized controlled trial. Nutrients. 2018; 10:1907.

https://doi.org/10.3390/nu10121907 PMID:30518050

 Dimauro I, Scalabrin M, Fantini C, Grazioli E, Beltran Valls MR, Mercatelli N, Parisi A, Sabatini S, Di Luigi L, Caporossi D. Resistance training and redox homeostasis: correlation with age-associated genomic changes. Redox Biol. 2016; 10:34–44. https://doi.org/10.1016/j.redox.2016.09.008

PMID:27687219

 Werner CM, Hecksteden A, Morsch A, Zundler J, Wegmann M, Kratzsch J, Thiery J, Hohl M, Bittenbring JT, Neumann F, Böhm M, Meyer T, Laufs U. Differential effects of endurance, interval, and resistance training on telomerase activity and telomere length in a randomized, controlled study. Eur Heart J. 2019; 40:34–46.

https://doi.org/10.1093/eurheartj/ehy585 PMID:30496493

22. Sanft T, Usiskin I, Harrigan M, Cartmel B, Lu L, Li FY, Zhou Y, Chagpar A, Ferrucci LM, Pusztai L, Irwin ML. Randomized controlled trial of weight loss versus usual care on telomere length in women with breast cancer: the lifestyle, exercise, and nutrition (LEAN) study. Breast Cancer Res Treat. 2018; 172:105–12. https://doi.org/10.1007/s10549-018-4895-7 PMID:30062572

23. Mason C, Risques RA, Xiao L, Duggan CR, Imayama I, Campbell KL, Kong A, Foster-Schubert KE, Wang CY, Alfano CM, Blackburn GL, Rabinovitch PS, McTiernan A. Independent and combined effects of dietary weight loss and exercise on leukocyte telomere length in postmenopausal women. Obesity (Silver Spring). 2013; 21:E549–54.

https://doi.org/10.1002/oby.20509

PMID:<u>23640743</u>

24. Krishna BH, Keerthi GS, Kumar CK, Reddy NM. Association of leukocyte telomere length with oxidative stress in yoga practitioners. J Clin Diagn Res. 2015; 9:CC01–03.

https://doi.org/10.7860/JCDR/2015/13076.5729 PMID:25954614

- 25. Tehfe M, Dowden S, Kennecke H, El-Maraghi R, Lesperance B, Couture F, Letourneau R, Liu H, Romano A. Erratum to: nab-paclitaxel plus gemcitabine versus gemcitabine in patients with metastatic pancreatic adenocarcinoma: canadian subgroup analysis of the phase 3 MPACT trial. Adv Ther. 2017; 34:277–79. https://doi.org/10.1007/s12325-016-0442-2 PMID:27885491
- Barnes RP, Fouquerel E, Opresko PL. The impact of oxidative DNA damage and stress on telomere homeostasis. Mech Ageing Dev. 2019; 177:37–45. https://doi.org/10.1016/j.mad.2018.03.013
 PMID:29604323
- 27. von Zglinicki T. Oxidative stress shortens telomeres. Trends Biochem Sci. 2002; 27:339–44. https://doi.org/10.1016/s0968-0004(02)02110-2 PMID:12114022
- 28. Sampson MJ, Winterbone MS, Hughes JC, Dozio N, Hughes DA. Monocyte telomere shortening and oxidative DNA damage in type 2 diabetes. Diabetes Care. 2006; 29:283–89. https://doi.org/10.2337/diacare.29.02.06.dc05-1715 PMID:16443874
- Reichert S, Stier A. Does oxidative stress shorten telomeres in vivo? a review. Biol Lett. 2017; 13:20170463. https://doi.org/10.1098/rsbl.2017.0463

https://doi.org/10.1098/rsbi.2017.0463 PMID:29212750

- Oh S, Lee E, Lee J, Lim Y, Kim J, Woo S. Comparison of the effects of 40% oxygen and two atmospheric absolute air pressure conditions on stress-induced premature senescence of normal human diploid fibroblasts. Cell Stress Chaperones. 2008; 13:447–58. https://doi.org/10.1007/s12192-008-0041-5
 PMID:18465208
- 31. Shlush LI, Skorecki KL, Itzkovitz S, Yehezkel S, Segev Y, Shachar H, Berkovitz R, Adir Y, Vulto I, Lansdorp PM, Selig S. Telomere elongation followed by telomere length reduction, in leukocytes from divers exposed to intense oxidative stress—implications for tissue and organismal aging. Mech Ageing Dev. 2011; 132:123–30.

https://doi.org/10.1016/j.mad.2011.01.005 PMID:21320523

32. Godman CA, Joshi R, Giardina C, Perdrizet G, Hightower LE. Hyperbaric oxygen treatment induces

- antioxidant gene expression. Ann N Y Acad Sci. 2010; 1197:178–83. https://doi.org/10.1111/j.1749-6632.2009.05393.x PMID:20536847
- Pignolo RJ, Passos JF, Khosla S, Tchkonia T, Kirkland JL. Reducing senescent cell burden in aging and disease. Trends Mol Med. 2020; 26:630–38. https://doi.org/10.1016/j.molmed.2020.03.005
 PMID:32589933
- 34. LE W. Hyperbaric Oxygen Therapy Indications. UHMS. 2008; 12th edition:215–218.
- Boussi-Gross R, Golan H, Fishlev G, Bechor Y, Volkov O, Bergan J, Friedman M, Hoofien D, Shlamkovitch N, Ben-Jacob E, Efrati S. Hyperbaric oxygen therapy can improve post concussion syndrome years after mild traumatic brain injury randomized prospective trial. PLoS One. 2013; 8:e79995.
 https://doi.org/10.1371/journal.pone.0079995
 PMID:24260334
- Efrati S, Fishlev G, Bechor Y, Volkov O, Bergan J, Kliakhandler K, Kamiager I, Gal N, Friedman M, Ben-Jacob E, Golan H. Hyperbaric oxygen induces late neuroplasticity in post stroke patients—randomized, prospective trial. PLoS One. 2013; 8:e53716. https://doi.org/10.1371/journal.pone.0053716
 PMID:23335971
- Mukherjee A, Raison M, Sahni T, Arya A, Lambert J, Marois P, James PB, Parent A, Ballaz L. Intensive rehabilitation combined with HBO2 therapy in children with cerebral palsy: a controlled longitudinal study. Undersea Hyperb Med. 2014; 41:77–85. PMID:24851544
- Hadanny A, Golan H, Fishlev G, Bechor Y, Volkov O, Suzin G, Ben-Jacob E, Efrati S. Hyperbaric oxygen can induce neuroplasticity and improve cognitive functions of patients suffering from anoxic brain damage. Restor Neurol Neurosci. 2015; 33:471–86. https://doi.org/10.3233/RNN-150517 PMID:26409406
- Tal S, Hadanny A, Berkovitz N, Sasson E, Ben-Jacob E, Efrati S. Hyperbaric oxygen may induce angiogenesis in patients suffering from prolonged post-concussion syndrome due to traumatic brain injury. Restor Neurol Neurosci. 2015; 33:943–51. https://doi.org/10.3233/RNN-150585 PMID:26484702
- 40. Hadanny A, Rittblat M, Bitterman M, May-Raz I, Suzin G, Boussi-Gross R, Zemel Y, Bechor Y, Catalogna M, Efrati S. Hyperbaric oxygen therapy improves neurocognitive functions of post-stroke patients a retrospective analysis. Restor Neurol Neurosci. 2020; 38:93–107.

https://doi.org/10.3233/RNN-190959 PMID:31985478

- Tal S, Hadanny A, Sasson E, Suzin G, Efrati S. Hyperbaric oxygen therapy can induce angiogenesis and regeneration of nerve fibers in traumatic brain injury patients. Front Hum Neurosci. 2017; 11:508. https://doi.org/10.3389/fnhum.2017.00508
 PMID:29097988
- 42. Efrati S, Golan H, Bechor Y, Faran Y, Daphna-Tekoah S, Sekler G, Fishlev G, Ablin JN, Bergan J, Volkov O, Friedman M, Ben-Jacob E, Buskila D. Hyperbaric oxygen therapy can diminish fibromyalgia syndrome—prospective clinical trial. PLoS One. 2015; 10:e0127012.

https://doi.org/10.1371/journal.pone.0127012 PMID:26010952

43. Hadanny A, Bechor Y, Catalogna M, Daphna-Tekoah S, Sigal T, Cohenpour M, Lev-Wiesel R, Efrati S. Hyperbaric oxygen therapy can induce neuroplasticity and significant clinical improvement in patients suffering from fibromyalgia with a history of childhood sexual abuse-randomized controlled trial. Front Psychol. 2018; 9:2495.

https://doi.org/10.3389/fpsyg.2018.02495 PMID:30618929

44. Shapira R, Efrati S, Ashery U. Hyperbaric oxygen therapy as a new treatment approach for Alzheimer's disease. Neural Regen Res. 2018; 13:817–18. https://doi.org/10.4103/1673-5374.232475
PMID:29863011 45. Steenstrup T, Kark JD, Verhulst S, Thinggaard M, Hjelmborg JV, Dalgård C, Kyvik KO, Christiansen L, Mangino M, Spector TD, Petersen I, Kimura M, Benetos A, et al. Telomeres and the natural lifespan limit in humans. Aging (Albany NY). 2017; 9:1130–42. https://doi.org/10.18632/aging.101216 PMID:28394764

- 46. Shammas MA. Telomeres, lifestyle, cancer, and aging. Curr Opin Clin Nutr Metab Care. 2011; 14:28–34. https://doi.org/10.1097/MCO.0b013e32834121b1 PMID:21102320
- Teubel I, Elchinova E, Roura S, Fernández MA, Gálvez-Montón C, Moliner P, de Antonio M, Lupón J, Bayés-Genís A. Telomere attrition in heart failure: a flow-FISH longitudinal analysis of circulating monocytes. J Transl Med. 2018; 16:35.
 https://doi.org/10.1186/s12967-018-1412-z
 PMID:29463269
- Baerlocher GM, Lansdorp PM. Telomere length measurements in leukocyte subsets by automated multicolor flow-FISH. Cytometry A. 2003; 55:1–6. https://doi.org/10.1002/cyto.a.10064 PMID:12938182
- Baerlocher GM, Lansdorp PM. Telomere length measurements using fluorescence in situ hybridization and flow cytometry. Methods Cell Biol. 2004; 75:719–50.

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Article Type: Letter to the Editor

Mask Mandates in Light of DANMASK-19

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When public pressure mounted for the use of hydroxychloroquine (HCQ) for prophylaxis or treatment of Coronavirus disease 2019 (COVID-19), our nation's leading scientists exercised prudence and recommended awaiting the results of randomized controlled trials (RCTs) before considering its use. Such restraint proved to be invaluable as evidence from RCTs ultimately showed that there is no benefit, but rather harm with HCQ use in the treatment of COVID-19. (1,2) A similar focus on high quality evidence has not been taken for masks and effect on mitigating the spread of disease. Internationally, public health mandates for masks in the community, has varied from no masks, to mandatory masks when outside in crowds, to wearing

masks when symptomatic . (3-5) While acknowledging the lack of evidence from RCTs of masks having any additive effects on mitigating the transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), (5) public mask use was recommended by the Center for Disease Control (CDC) for protective effect (among healthy individuals) and not just source control (among symptomatic individuals).

The DANMASK-19 was a well powered randomized controlled trial (6000 participants) with 46% proper and 47% predominantly proper adherence to masks in a setting of uncommon mask use, moderate spread of infection, and reasonable adherence to social distancing and handwashing (6). The DANMASK-19 trial was consistent with the 12 previous RCTs (7) which showed, with moderate certainty evidence, there were negligible additive effects from masks in the prevention of respiratory infections. The DANMASK-19 trial showed the mask's protective effect to be inconclusive and difference between the two groups to not be statistically significant in the community setting. Despite the evidence from previous RCTs on influenza and other respiratory viral infections, there was suspicion from observational studies (8) that severe acute respiratory syndrome SARS-CoV-2 behaved differently and droplet transmission could be mitigated by mask use in the presymptomatic phase. (5) Therefore, the implementation of universal mask use was justified, while awaiting the results DANMASK 19. In light of the inconclusive evidence from DANMASK 19 and the previous RCTs, the case for a protective effect from COVID 19 lacks evidence and requires modification from public health officials.

While this study did not assess for source control, the effect of masks is compelling, when restricted to contacts of index cases receiving intervention within 36 hours of symptom onset. (9) Hence, mask use among symptomatic individuals and their contacts is evidence based. On the contrary, longterm effects of mask use among health individuals is unknown (3) and short term effects include breathing difficulties, self infection through touching eyes due to irritation from exhaled air from masks, and a false sense of security from mask while neglecting social distancing (10). The argument for masks having a variolation effect in COVID-19, is compelling (11), but lacking in evidence from cohort studies. Hence, with the current data available, the best case for masks appears to be in symptomatic patients and recommended (not mandatory) use in crowded settings. Wisdom to use measured language in what we "mandate" and "recommend" would be advised. We must decide with prudence as we did with HCQ what we choose to be

"absolutely essential" measures and we must decide these based upon robust evidence. In the haste of establishing "life saving" measures, we may be instead be losing the public's trust by

not having the supportive evidence and unintentionally placing the lives of the community and

health care workers at risk.

Word Count: 569

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References

- 1. Boulware DR, Pullen MF, Bangdiwala AS et al A Randomized Trial of Hydroxychloroquine as Postexposure Prophylaxis for Covid-19. N Engl J Med. 2020 Aug 6;383(6):517-525. doi: 10.1056/NEJMoa2016638. Epub 2020 Jun 3. PMID: 32492293; PMCID: PMC7289276.
- 2. RECOVERY Collaborative Group, Horby P, Mafham M, Linsell L, Bell JL, Effect of Hydroxychloroquine in Hospitalized Patients with Covid-19. N Engl J Med. 2020 Nov 19;383(21):2030-2040. doi: 10.1056/NEJMoa2022926. Epub 2020 Oct 8. PMID: 33031652; PMCID: PMC7556338.
- 3. Javid B, Weekes MP, Matheson NJ. Covid-19: should the public wear face masks? BMJ. 2020 Apr 9;369:m1442. doi: 10.1136/bmj.m1442. PMID: 32273278.
- 4. Bundgaard H, Bundgaard JS, Raaschou-Pedersen DET et al. Face masks for the prevention of COVID-19 Rationale and design of the randomised controlled trial DANMASK-19. Dan Med J. 2020 Aug 18;67(9):A05200363. PMID: 32829745.
- 5. World Health Organization. Advice on the use of masks in the context of COVID-19: interim guidance. WHO Global: World Health Organization, 2020;(5 June):1-5. https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak
- 6. Bundgaard H, Bundgaard JS, Raaschou-Pedersen DET, et al. Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers: A Randomized Controlled Trial. Ann Intern Med. 2020 Nov 18:M20-6817. doi: 10.7326/M20-6817. Epub ahead of print. PMID: 33205991; PMCID: PMC7707213.
- 7. Chou R, Dana T, Jungbauer R, et al. Masks for Prevention of Respiratory Virus Infections, Including SARS-CoV-2, in Health Care and Community Settings: A Living Rapid Review. Ann Intern Med. 2020 Oct 6;173(7):542-555. doi: 10.7326/M20-3213. Epub 2020 Jun 24. PMID: 32579379; PMCID: PMC7322812.

- 8. Chu DK, Akl EA, Duda S, et al.; COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors. Physical distancing, face masks, and eye protection to prevent personto-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. Lancet. 2020 Jun 27;395(10242):1973-1987. doi: 10.1016/S0140-6736(20)31142-9. Epub 2020 Jun 1. PMID: 32497510; PMCID: PMC7263814.
- 9. Cowling BJ, Chan KH, Fang VJ, et al. Facemasks and hand hygiene to prevent influenza transmission in households: a cluster randomized trial. Ann Intern Med. 2009 Oct 6;151(7):437-46. doi: 10.7326/0003-4819-151-7-200910060-00142. Epub 2009 Aug 3. PMID: 19652172.
- 10. Lazzarino AI, Steptoe A, Hamer M, et al. Covid-19: Important potential side effects of wearing face masks that we should bear in mind. BMJ. 2020 May 21;369:m2003. doi: 10.1136/bmj.m2003. PMID: 32439689.
- 11. Gandhi M, Rutherford GW. Facial Masking for Covid-19 Potential for "Variolation" as We Await a Vaccine. N Engl J Med. 2020 Oct 29;383(18):e101. doi: 10.1056/NEJMp2026913. Epub 2020 Sep 8. PMID: 32897661.

House Bill - 1323

Thank you for the chance to address the members of the House Political Subdivisions Committee. I am writing in opposition to HB 1323 - relating to limitations on mask wearing requirements.

According to a Jamestown Sun article from January 15th, "Medical professionals have widely credited North Dakota's mask mandate with reducing the spread of COVID-19 in the state..." which is such a relief for me and my family.

Having a state and city mandate in place has been key to bringing the transmission of the virus under control and allowing us to have some normalcy.

I hope you will not put limitations on mask mandates. It has reduced the spread of COVID-19 as we wait for widespread vaccination and it will be an important public health tool for future pandemics.

Thank you for your time.

Whitney Oxendahl

Sixty-seventh Legislative Assembly of North Dakota

Re: Testimony in favor of HB 1323

Attn: Committee Members,

I, Todd Kjelland am writing in favor of passing House Bill 1323.

As Dr Fauci himself said... (https://www.nih.gov/news-events/news-releases/bacterial-pneumonia-caused-most-deaths-1918-influenza-pandemic)

a. "...The work presents complementary lines of evidence from the fields of pathology and history of medicine to support this conclusion. "The weight of evidence we examined from both historical and modern analyses of the 1918 influenza pandemic favors a scenario in which viral damage followed by bacterial pneumonia led to the vast majority of deaths," says co-author NIAID Director Anthony S. Fauci, M.D. "In essence, the virus landed the first blow while bacteria delivered the knockout punch."

While the scientific evidence regarding effectiveness and safety of masking for viral protection is in question, the perception of mask wearers has a long negative history, most which is also contrary to religious beliefs.

The symbol of the mask itself represents demonic tendencies of deception.

Shame masks were a type of embarrassing punishment device used in Europe during the Middle Ages until 18th century. A "shame mask," intended to silence their wagging tongues and offensive behavior. In a perfect world, it would be used on the cast members of the Bad Girls Club; but unfortunately it was used on women who spoke their minds to their husbands instead of being subservient like the Bible demanded, or on women accused of being witches or gossips; or in the Americas on disobedient slaves or on Quaker women who preached in public. (https://cvltnation.com/know-your-place-medieval-shame-masks/)

Leper masks carry a stigma of leprosy which persists not only because of the term's metaphorical connotations, but also because of the disease's complicated history, in which non-leprous populations who confronted the disease ignored medical knowledge and favored a reconstructed medieval view of the disease, judging it to be highly contagious and a result of sin. The modern stigma of one wearing a surgical style mask outside of the normal hospital emergency or surgical room carries a stigma of the wearer being infectious.

Modern day masks have sparked controversy creating anti-mask or anti-masking laws which are legislative or penal initiatives that seek to stop individuals from concealing their faces while protesting, who do so often to not be identified or out of religious practice. This has created a public fear perception of anyone wearing a mask.

Modern NEWS channels often show video footage of masked ISIS fighters and terrorists wearing masks. This reinforces fear of people who conceal their faces.

Masks are often used in Pagen and Wicca rituals and can shift one's perspective from the outer, to the inner. "The creation of internal reality by the mind is confirmed by the consideration of altered states of

consciousness. However, in some religions, masks are seen as evil and are condemned, such as with the rise of Christianity where the Church Councils damned the practice of using masks.

Masks of all sorts can create fear. In a nursing facility with many residents facing memory loss, a friendly face is oftentimes a redirecting strategy. If they can't see a face, their fear may elevate into panic or worse. The same goes for vulnerable people in a public setting.

Mask wearing has become a scarlet letter to the healthy. Healthy people now must prove they are not sick instead of the sick proving they are well. This is akin to proving one's innocents instead of proving one's guilt in a court of law.

While making the argument that wearing surgical masks **over long durations** has not been fully studied or documented, **the potential safety risks are sufficient enough to warrant suspension of all mandated policy** until additional private-peer reviewed studies prove sufficient scientific and psychological safety. Intentional LACK of long-term study would prove to be negligent after the fact of implementing a mandatory masking policy.

But let me be honest...Unfortunately, the mandates really have nothing to do with customer concern or public safety. The act of masking is an ongoing social experiment as compliance records are kept, especially in health care settings, and the data is collected, analyzed and manipulated for government benefit. I think we all have seen undeniable manipulation of numbers regarding this latest pandemic.

The conclusions of the Nuremberg Tribunal unequivocally states that "voluntary consent of the human subject is absolutely essential" and individuals should "be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress or other ulterior forms of constraint or coercion." Moreover, people must be provided with "sufficient knowledge and comprehension of the elements of the subject matter involved as to enable them to make an understanding and enlightened decision." (Nuremberg Tribunal 1949, pp 181)

Thank you for your time. It's a DO PASS for HB 1323 for me.

Todd Kjelland

701-331-2956

emocoach@live.com

House Bill - 1323

Thank you for the chance to address the members of the House Political Subdivisions Committee. I am writing in opposition to HB 1323 - relating to limitations on mask wearing requirements.

According to a Jamestown Sun article from January 15th, "Medical professionals have widely credited North Dakota's mask mandate with reducing the spread of COVID-19 in the state..." which is such a relief for me and my family.

Having a state and city mandate in place has been key to bringing the transmission of the virus under control and allowing us to have some normalcy.

I hope you will not put limitations on mask mandates. It has reduced the spread of COVID-19 as we wait for widespread vaccination and it will be an important public health tool for future pandemics.

Thank you for your time.

Whitney Oxendahl

Mask wearing is simply virtue signaling and a placebo to allow those scared to live the opportunity to believe they can magically survive anything. The problem is , wearing a mask is actually more harmful than the supposed protection it provides.

https://medium.com/theusareviewer/the-potential-dangers-of-wearing-a-face-mask-51b9b86980a

In fact, masks can actually lower your immune systems ability to function, and make you more susceptible to a variety of other diseases.

https://www.jpost.com/health-science/could-wearing-a-mask-for-long-periods-be-detrimental-to-health-628400

Since so many people want us to all follow the 'science' I urge you to allow ALL science to the table. This would result in each person doing what THEY want to, to control their health. Wearing a mask causes me personal distress, physical breathing issues and additional immune problems. By creating and supporting sustained mask mandates, you are saying someone else's health is more important than mine.

HOW DARE YOU.

It is up to ME to decide my health needs, not you. It is up to ME to configure my care, not you. And it certainly is not up to YOU to pick another's health as a greater priority than mine.

Dear Committee Members,

Passage of HB 1164 would provide a much-needed process to push back against overreaching executive authority. I support this bill to review presidential executive orders and to end state cooperation with enforcement of certain orders determined to violate the U.S. Constitution. Please render a DO PASS out of committee on HB 1164.

Thank you for your service and leadership to our state.

My name is Anthony Freeman I am a resident of North Dakota.

I am writing in support of House Bill 1323.

I strongly believe that the number of cases of covid19 has gone down in north dakota enough to return to normal.

I personally have had no sickness, illness or symptoms at all.

I have only had a minor nose or throat irritation ONLY AFTER I started using a mask to follow the law.

I do not believe the government can or should mandate health devices.

Those who still believe in wearing masks can do so, without trying to force everyone else to.

21.0492.03000

Sixty-seventh Legislative Assembly of North Dakota

HOUSE BILL NO. 1164

Introduced by

Representatives Kading, Jones, M. Ruby, Schatz, Schauer, Toman Senators Heitkamp, Kannianen, O. Larsen

- 1 A BILL for an Act to amend and reenact section 54-03-32 of the North Dakota Century Code,
- 2 relating to the review of presidential executive orders.

3 BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

- 4 **SECTION 1. AMENDMENT.** Section 54-03-32 of the North Dakota Century Code is amended and reenacted as follows:
- 6 54-03-32. Review of presidential executive orders <u>- Restriction</u>.
- 7 The legislative management may review any executive order issued by the president 8 of the United States which has not been affirmed by a vote of the Congress of the 9 United States and signed into law as prescribed by the Constitution of the United 10 States and recommend to the attorney general and the governor that the executive 11 order be further reviewed. Upon recommendation from the legislative management, 12 the attorney general shall review the executive order to determine the constitutionality 13 of the order and whether the state should seek an exemption from the application of 14 the order or seek to have the order declared to be an unconstitutional exercise of 15 legislative authority by the president.
 - 2. Notwithstanding any other provision of law, the state, a political subdivision, or any other publicly funded organization may not implement an executive order that restricts a person's rights or that the attorney general determines to be unconstitutional under subsection 1 and which relates to:
- 20 <u>a. Pandemics or other health emergencies;</u>
- 21 <u>b. The regulation of natural resources, including coal and oil;</u>
- 22 <u>c. The regulation of the agriculture industry;</u>
- d. The use of land;

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Sixty-seventh Legislative Assembly

- 1 <u>e.</u> <u>The regulation of the financial sector as it relates to environmental, social, or </u>
- 2 governance standards; or
- 3 <u>f.</u> The regulation of the constitutional right to keep and bear arms.

Dear Committee Members,

Asymptomatic spread of COVID-19 is the house of cards upon which mask mandates and lockdowns are built. A Journal of the American Medical Association meta-analysis of 54 studies showed that the rate of asymptomatic spread in households that had a family member who was positive for COVID-19 was 0.7%. If it is that rare among family members that live together, what does that tell us about asymptomatic spread in the general population? The link to the JAMA Network Analysis published on December 14th, 2020 is provided below.

The burden of proof lies with our governing authorities and businesses to provide solid evidence and constitutional support for enacting policies that change people's lives in such dramatic ways as forced public mask-wearing at all times. In fact, an argument could be made that the public deserves proof that masks don't actually *cause* the spread of viruses and bacteria. Many citizens have legitimate health concerns about the unprofessional way masks are being worn in non-clinic settings. Because the evidence is so mixed and politicized, and because we are inexplicably told to wear masks even when socially distanced from others, many citizens do not have confidence in public health messaging.

The evidence for the efficacy of public mask wearing has actually been quite weak which is why those who advocate for masks and lockdowns resort to emotional manipulation to get the public to comply with mask mandates. Blaming fellow citizens for the completely inevitable spread of a highly contagious respiratory virus has led to unintended negative social consequences including the pervasive bullying and lecturing of fellow citizens as well as the argument that we should normalize mask-wearing from this point forward to protect the population from all viruses, not just COVID-19. We are being asked to choose compassion for others over individual liberty, but that is a false dichotomy, and serves only to cause animosity and division among fellow Americans.

Mask mandates are a win-win for political leaders and corporations. If cases decline, they can credit their decisive leadership. If cases rise, they can blame the public for non-compliance. Either way, the burden of responsibility is placed on the public and conveniently lets leaders off the hook for failures in policy. Attached below are graphs of states and countries that show that the rise and fall in COVID-19 cases are completely unaffected by government mitigations.

Going forward, elected officials and business owners have the choice to continue leading through force or to lead by persuasion, reason and dialogue. I

ask you to consider which of those two styles of leadership reflect the hard won liberty that North Dakotans highly revere. Please respect your fellow citizens enough to allow them to assess public health guidelines and then decide for themselves whether to mask up or not. If the case for mask-wearing holds up, then most North Dakotans will choose to comply because we have always been the kind of people who look out for one another. However, the freedom to choose is the only way forward if we have any respect left for the freedom for which so many fought and died.

Please render a DO PASS on HB 1323.

Thank you for your leadership and service to our great state.

Resources:

Mask Graphs

https://rationalground.com/after-nine-months-we-still-know-masks-dont-work/

https://rationalground.com/more-mask-charts/

https://rationalground.com/mask-charts/

JAMA Network Analysis

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2774102? fbclid=lwAR2oEkC4hwEgiNiMuH1QgbU3Cddleb_sWsdUUa0EMpGoMZ9eqzFQj hnZgoM



Cheryl Riley President, External Affairs Northern Plains States AT&T Services, Inc. 3709 W. 41st St. Sioux Falls SD 57106 M: 307.365.1379 CR6557@att.com www.att.com

February 4, 2021
Oppose House Bill 1323
Chairman Lefor
House Industry, Business and Labor Committee

Dear Chairman Lefor and Members of the Industry, Business and Labor Committee,

In response to HB 1323, we want to clarify that AT&T complies with the CDC's COVID-19 guidelines to protect the health and safety of our employees, our customers, and the public. Keeping everyone safe during this pandemic is our top priority.

As such, AT&T has taken steps to safely operate our business, retail locations and offices. In addition to maintaining social distance, hand washing hygiene and routine sanitizing of surfaces, AT&T has also instituted face covering requirements that must be followed in the workplace or while performing work on behalf of AT&T. It is our corporate policy that all employees, non-payroll workers and vendors must wear a face covering.

If an employee has an underlying health condition or religious reasons, we have internal processes employees can go through to opt out, and we will make job accommodations for those employees. But, if the legislation allows employees to unilaterally make the determination of whether they are going to wear a mask or face covering, it puts all our employees, their families and our customers at risk. The bill appears to override our corporate policies.

We want our employees and customers to be confident that AT&T will have their health and safety uppermost in how we manage our interactions. That's the very least we can do as a corporate citizen. Our mask/face covering policies are intended to protect everyone and provide a consistent and level playing field in the interest of public health. Wearing a mask is easy and a small sacrifice to make.

Nothing is more important than the safety, health and well-being of our employees, customers and communities in these challenging times.

Sincerely,

Cheryl Riley

President, AT&T External Affairs

Northern Plains States



Written testimony to:

67th Legislative Assembly
House Political Subdivisions Committee

HB 1323

Chairman Representative J. Dockter and Committee Members

I am Paula Moch FNP-BC, Legislative Liaison for the North Dakota Nurse Practitioner Association (NDNPA). I am submitting this written testimony on behalf of the NDNPA in opposition of HB 1323 as written.

The NDNPA opposes creation and enacting of any sections to the NDCC that may compromise the health of the residents of North Dakota. HB 1323 is a bill that will compromise the health of North Dakota residents.

Elected officials, the state of ND, employers, education officials mandate the wearing of masks, face shields and various coverings based upon recommendations. These recommendations are based on research and guidelines set forth by the Center for Disease Controls, National Institutes of Health and various other agencies. These mandates are done for the protection of the residents of North Dakota, By limiting these officials ability to protect the residents, when the resident may not have access to factual information, puts the residents of North Dakota at risk.

Masks have been proven to reduce the spread of disease, prevent acquiring certain disease. They are a non-invasive form of protection.

This concludes the written testimony of opposition of HB 1323 on behalf of the NDNPA. I am happy to answer any questions in writing or via telephone.

Thank you for your time.

Paula M Moch BSN, MSN, FNP-BC NDNPA Legislative Liaison 2021 ndnpalegislative@gmail.com 701-321-3193

Testimony by Kara Geiger in opposition to HB 1323

Dear Chairman Dockter and members of the House Political Subdivisions Committee,

As a parent of a child in the public school system in North Dakota, I urge you to **OPPOSE HB 1323**.

The mask requirement by the Mandan Public School District is the primary reason that our children have been able to attend school in-person and without major interruptions during the pandemic. If only some of the students and staff were to choose to wear masks, we would be dealing with multiple instances of quarantining due to close contact with someone who tested positive. That is not only bad for our kids, but it's a burden for the parents and guardians who work outside the home and who may not be able to stay home with their children for 10 or 14 days, several times during the school year.

Masks are not 100% effective in preventing the transmission of COVID-19 (or other viruses, for that matter), but along with other mitigation measures, they provide an important layer of protection for everyone. If we wish to continue in-person instruction during this pandemic (and any future outbreaks), we need to allow the school districts to require masks when necessary. I have listened to the discussions during school board meetings and the decision to require masks was based on sound reasoning and was made with a great deal of care and consideration. No one wants our kids to have to wear masks in schools, but it's a minor and temporary inconvenience that allows for uninterrupted in-person instruction – which is something that everyone wants.

Thank you so much for your time and your service to North Dakota.

Kara Geiger Mandan, ND

Kara J. Gleigen

Swiss Policy Research



Are Face Masks Effective? The Evidence.



Updated: January 2021; Published: July 2020

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An overview of the current evidence regarding the effectiveness of face masks.

1. Studies on the effectiveness of face masks

So far, most studies found little to no evidence for the effectiveness of cloth face masks in the general population, neither as personal protective equipment nor as a source control.

- 1. A May 2020 meta-study on pandemic influenza published by the **US CDC** found that face masks had no effect, neither as personal protective equipment nor as a source control. (<u>Source</u>)
- 2. A **Danish randomized controlled trial** with 6000 participants, published in the Annals of Internal Medicine in November 2020, found no statistically significant effect of high-quality medical face masks against SARS-CoV-2 infection in a community setting. (Source)

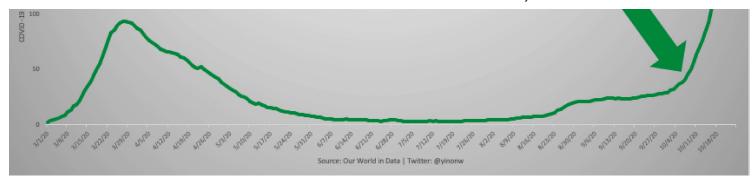
- 3. A July 2020 review by the **Oxford Centre for Evidence-Based Medicine** found that there is no evidence for the effectiveness of cloth masks against virus infection or transmission. (Source)
- 4. A May 2020 cross-country study by the **University of East Anglia** (preprint) found that a mask requirement was of no benefit and could even increase the risk of infection. (<u>Source</u>)
- 5. An April 2020 review by two US professors in respiratory and infectious disease from the **University of Illinois** concluded that face masks have no effect in everyday life, neither as self-protection nor to protect third parties (so-called source control). (Source)
- 6. An article in the **New England Journal of Medicine** from May 2020 came to the conclusion that cloth face masks offer little to no protection in everyday life. (<u>Source</u>)
- 7. An April 2020 **Cochrane review** (preprint) found that face masks didn't reduce influenza-like illness (ILI) cases, neither in the general population nor in health care workers. (<u>Source</u>)
- 8. An April 2020 review by the **Norwich School of Medicine** (preprint) found that "the evidence is not sufficiently strong to support widespread use of facemasks", but supports the use of masks by "particularly vulnerable individuals when in transient higher risk situations." (<u>Source</u>)
- 9. A 2015 study in the British Medical Journal **BMJ Open** found that cloth masks were penetrated by 97% of particles and may increase infection risk by retaining moisture or repeated use.

 (Source)
- 10. An August 2020 review by a **German professor** in virology, epidemiology and hygiene found that there is no evidence for the effectiveness of cloth face masks and that the improper daily use of masks by the public may in fact lead to an increase in infections. (Source)

*Development of cases after mask mandates

In many states, coronavirus infections strongly increased after mask mandates had been introduced. The following charts show the typical examples of Austria, Belgium, France, Germany, Ireland, Italy, Spain, the UK, California, Hawaii and Texas. <u>See more examples</u>.





Mask mandates and coronavirus infections (Source: Yinon Weiss)

Additional aspects

- 1. There is <u>increasing evidence</u> that the novel coronavirus is transmitted, at least in indoor settings, not only by droplets but also by **smaller aerosols**. However, due to their large pore size and poor fit, cloth masks cannot filter out aerosols (see video analysis below): over 90% of aerosols <u>penetrate or bypass</u> the mask and fill a medium-sized room within minutes.
- 2. The **WHO** admitted to the BBC that its June 2020 <u>mask policy update</u> was due not to new evidence but <u>"political lobbying"</u>: "We had been told by various sources WHO committee reviewing the evidence had not backed masks but they recommended them due to political lobbying. This point was put to WHO who did not deny." (D. Cohen, BBC Medical Corresponent).
- 3. To date, the only **randomized controlled trial (RCT)** on face masks against SARS-CoV-2 infection in a community setting found no statistically significant benefit (see above). However, three major journals <u>refused to publish</u> this study, delaying its publication by several months.
- 4. An analysis by the **US CDC** found that <u>85% of people</u> infected with the new coronavirus reported wearing a mask "always" (70.6%) or "often" (14.4%). Compared to the control group of uninfected people, always wearing a mask did not reduce the risk of infection.
- 5. Researchers from the University of Minnesota found that the **infectious dose of SARS-CoV-2** is just 300 virions (viral particles), whereas a single minute of normal speaking may generate more than 750,000 virions, making cloth face masks unlikely to prevent an infection.
- 6. **Japan**, despite its widespread use of face masks, experienced its <u>most recent influenza epidemic</u> with more than 5 million people falling ill just one year ago, in January and February 2019.

 However, unlike SARS-CoV-2, the influenza virus is easily transmitted by children, too.
- 7. **Austrian scientists** found that the introduction, retraction and re-introduction of a face mask mandate in Austria had <u>no influence</u> on the coronavirus infection rate.
- 8. In the **US state of Kansas**, the 90 counties without mask mandates had lower coronavirus infection rates than the 15 counties with mask mandates. To hide this fact, the Kansas health

department tried to manipulate the official statistics and data presentation.

- 9. Contrary to common belief, studies **in hospitals** <u>found that</u> the wearing of a medical mask by surgeons during operations <u>didn't reduce</u> post-operative bacterial wound infections in patients.
- 10. During the notorious **1918 influenza pandemic**, the use of cloth face masks among the general population was widespread and in some places mandatory, but they <u>made no difference</u>.
- 11. **Asian countries** with low covid infection rates, most of them neighboring China, benefited not from face masks but mainly from <u>early border closures</u>. This is confirmed by Scandinavian countries Norway, Finland and Denmark, which didn't introduce mask mandates but <u>closed</u> <u>borders early</u> and saw very low covid infection and death rates, too.
- 12. German scientists found that in and on **N95 (FFP2) masks**, the novel coronavirus remains infectious <u>for several days</u>, much longer than on most other materials, thus significantly increasing the risk of infection by touching or reusing such masks.

[©]Dr. Theodore Noel explains the facemask aerosol issue



0:00 / 2:55

©2. Studies claiming face masks are effective

Some recent studies argued that cloth face masks are indeed effective against the new coronavirus and could at least prevent the infection of other people. However, most of these studies suffer from

poor methodology and sometimes show the opposite of what they claim.

Typically, these studies ignore the effect of other measures, the natural development of infection numbers, changes in test activity, or they compare countries with very different conditions.

An overview:

- 1. A **meta-study in the journal Lancet**, commissioned by the **WHO**, <u>claimed that</u> masks "could" lead to a reduction in the risk of infection, but the studies considered mainly N95 respirators in a hospital setting, not cloth masks in a community setting, the strength of the evidence was reported as "low", and experts found <u>numerous flaws in the study</u>. Professor Peter Jueni, epidemiologist at the University of Toronto, called the WHO study "<u>essentially useless</u>".
- 2. A study in the journal **PNAS** <u>claimed that</u> masks had led to a decrease in infections in three global hotspots (including New York City), but the study did not take into account the natural decrease in infections and other simultaneous measures. The study was so flawed that over 40 scientists recommended that the study <u>be withdrawn</u>.
- 3. A **US study** <u>claimed that</u> US counties with mask mandates had lower Covid infection and hospitalization rates, but the authors had to withdraw their study as infections and hospitalizations increased in many of these counties shortly after the study was published.
- 4. A **German study** <u>claimed that</u> the introduction of mandatory face masks in German cities had led to a decrease in infections. But the data does not support this claim: in some cities there was no change, in others a decrease, in others an increase in infections (see graph below). The city of **Jena** was an 'exception' only because it simultaneously introduced the <u>strictest quarantine rules</u> in Germany, but the study did not mention this.
- 5. A **Canadian study** <u>claimed that</u> countries with mandatory masks had fewer deaths than countries without mandatory masks. But the study compared African, Latin American, Asian and Eastern European countries with very different infection rates and population structures.
- 6. A small review by the **University of Oxford** <u>claimed that</u> face masks are effective, but it was based on studies about SARS-1 and in health care settings, not in community settings.

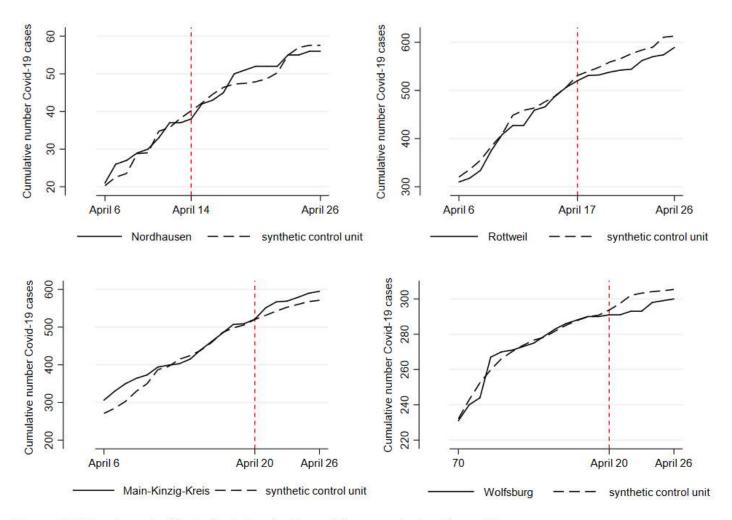


Figure A7: Treatment effects for introduction of face masks in other cities

Mandatory masks in German cities: no relevant impact. (IZA 2020)

©3. Risks associated with face masks

Wearing masks for a prolonged period of time is not harmless, as the following evidence shows:

- 1. The **WHO** warns of various <u>"side effects"</u> such as difficulty breathing and skin rashes.
- Tests conducted by the University Hospital of Leipzig in Germany <u>have shown that</u> face
 masks significantly reduce the resilience and performance of healthy adults.
- 3. A **German psychological study** with about 1000 participants found <u>"severe psychosocial consequences"</u> due to the introduction of mandatory face masks in Germany.
- 4. The **Hamburg Environmental Institute** warned of the <u>inhalation of chlorine compounds</u> in polyester masks as well as problems in connection with face mask disposal.

- 5. The European rapid alert system **RAPEX** has already <u>recalled 70 mask models</u> because they did not meet EU quality standards and could lead to "serious risks".
- 6. In Germany, **two 13-year-old children** <u>died suddenly</u> while <u>wearing a mask</u> for a prolonged period of time; autopsies couldn't exclude <u>CO2 intoxication</u> or a sudden cardiac arrest.
- 7. In China, **several children** who had to wear a mask during sports classes <u>fainted and died</u>; the autopsies found a sudden cardiac arrest as the probable cause of death.
- 8. In the US, a car driver wearing an N95 (FFP2) mask fainted and crashed into a pole.

©Conclusion

Cloth face masks in the general population might be effective, at least in some circumstances, but there is currently little to no evidence supporting this proposition. If the coronavirus is indeed transmitted via indoor aerosols, cloth masks are unlikely to be protective. Health authorities should therefore not assume or suggest that cloth face masks will reduce the rate or risk of infection.

[©]See also

- Facts about Covid-19
- Studies on Covid-19 lethality
- On the treatment of Covid-19

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Face masks have done nothing to curb this pandemic and a cursory review of case and death numbers comparing mask mandated and non mandated areas tells use that.

Governments, schools and businesses should not be able to force us to wear masks.

WORLD AFFAIRS

These 12 Graphs Show Mask Mandates Do Nothing To Stop COVID

No matter how strictly mask laws are enforced nor the level of mask compliance the population follows, cases all fall and rise around the same time.

Masks have become a political tool and a talisman. When COVID-19 hit, governments panicked and created enormous fear. The Centers for Disease Control currently estimates a COVID-19 survival rate of 99.99 percent for people younger than 50, but the damage created by the panic was too great to undo.

It is likely that some politicians eventually realized their mistake and needed a way to back-pedal without admitting their lockdowns were a policy disaster. Their solution was for people to put any old piece of cloth across their face and magically believe that it's okay to go out shopping again.

Masks are not merely a small inconvenience. They have inadvertently become a key impediment to returning to a more normal life, a desirable goal for those seeking to twist the pandemic for political and electoral purposes.

Masks dehumanize us, and ironically serve as a constant reminder that we should be afraid. People can now be spotted wearing masks while camping by themselves in the woods or on a solo sailing trip. They have become a cruel device on young children everywhere, kindergarten students covered by masks and isolated by Plexiglas, struggling to understand the social expressions of their peers. Face coverings are causing real harm to the American psyche, provide little to no medical benefit, and distract us from more important health policy issues.

The mask dogma had many cracks in it from the start. For one, the U.S. surgeon general and the Centers for Disease Control both previously said that "masks are NOT effective in preventing [the] general public from catching coronavirus," so they were already starting with a credibility deficit. Furthermore, many officials have been frequently caught without masks when they think the cameras are off them. Dr. Anthony Fauci, for example, has been caught doing this multiple times.



Chicago's mayor and local media were all caught taking off their masks and violating social distancing as soon as a press conference ended. This was caught in a now deleted YouTube video that was shared by a now deleted Twitter account after being retweeted more than 26,000 times. As of the date of this publication, it is still available to view in a crude video of a video that has yet to be deleted on YouTube.

Clearly, some people do not want you to see what politicians do behind the scenes. Pennsylvania Gov. Tom Wolf, a strong advocate for mandatory masking, was caught off camera laughing about how wearing masks is an act of "political theater."

Faking 'Science' to Achieve Political Goals

These same politicians and health officials are so desperate to make people believe in masks that they doctor charts to make their case, even when their own data actually undermines them. So what is the actual science behind masks? Let's begin by reviewing the leading scientific studies.

The Centre for Evidence-Based Medicine at Oxford University summarized six international studies which "showed that masks alone have no significant effect in interrupting the spread of ILI or influenza in the general population, nor in healthcare workers." Oxford went on to say that "that despite two decades of pandemic preparedness, there is considerable uncertainty as to the value of wearing masks." They

prophetically warned that this has "left the field wide open for the play of opinions, radical views and political influence."

A study of health-care workers in more than 1,600 hospitals showed that cloth masks only filtered out 3 percent of particles. An article in the New England Journal of Medicine stated, "[W]earing a mask outside health care facilities offers little, if any, protection from infection" and that "[T]he desire for widespread masking is a reflexive reaction to anxiety over the pandemic."

There are many other credible studies showing lack of mask efficacy, such as studies published in the National Center for Biotechnology Information, Cambridge University Press, Oxford Clinical Infectious Diseases, and Influenza Journal, just to name a few.

Studies do show masks can help in the case of direct respiratory droplets, which would matter if somebody is coughing, breathing, or sneezing directly on your face. That happens normally in a tight and highly confined space.

But the plentiful evidence we have indicates masks would not meaningfully help with aerosol transmission, where two people are just in the same area, or even the same room. This is because the two people end up breathing the same air, with or without a mask, as visually demonstrated in this video.

Now for Graphs about International Mask Mandates

Historical scientific studies do not make a compelling case that universal masking would meaningfully help, so let's explore real-world situations to see where data leads us.

Austria was one of the first governments to require masks, and it did so about 10 days after its cases began to go down. The level of downtrend did not change or improve after masks were required. After the nation's people wearing masks for an extended period, cases are currently four times where they were when Austria mandated masks, and cases continue to climb.



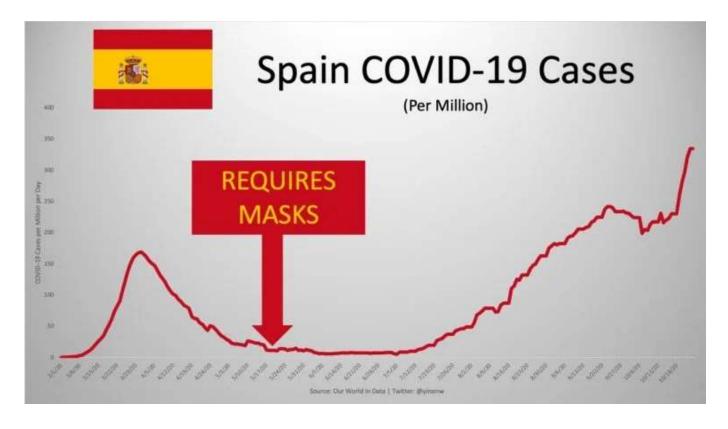
Germany mandated masks about halfway down its original recovery. Their cases are now similarly climbing quickly.



The French now have around 1,000 percent more daily cases they had when they mandated masks, despite having one of the highest mask compliance levels in the world.



Spain was not far behind its French neighbor with a mandate. Spain required masks when cases were near zero and has the highest compliance with mask-wearing in all Europe. Now Spain is at around 1,500 percent the level of cases compared to when it mandated masks.



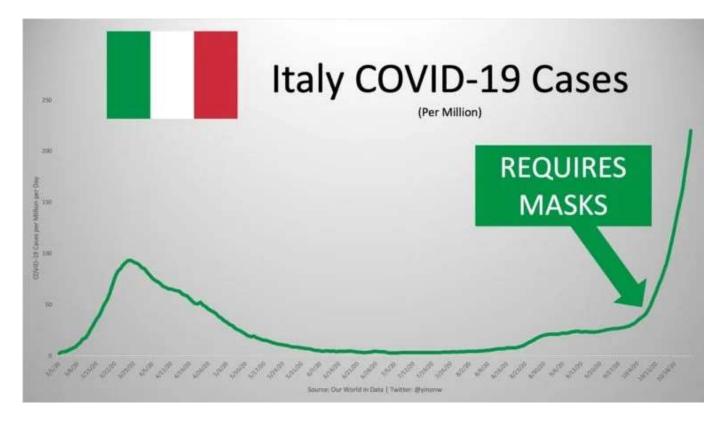
After three months of requiring masks, the United Kingdom is at around 1,500 percent more cases despite having one of the highest mask compliance records in Europe.



Belgium required masks shortly after the British did, and now possibly has the highest rate of cases in the world.



Italy had extremely high levels of mask-wearing despite no national mandate. Recently skyrocketing cases finally compelled them to create one of the strictest mask laws in the world, but the results have predictably failed to slow the rise in coronavirus cases. In fact, cases skyrocketed immediately after the mask mandate went into effect.



Similar results have been found in Ireland, Portugal, Israel, and many other countries. No matter how strictly mask laws are enforced nor the level of mask compliance the population follows, cases all fall and rise around the same time.

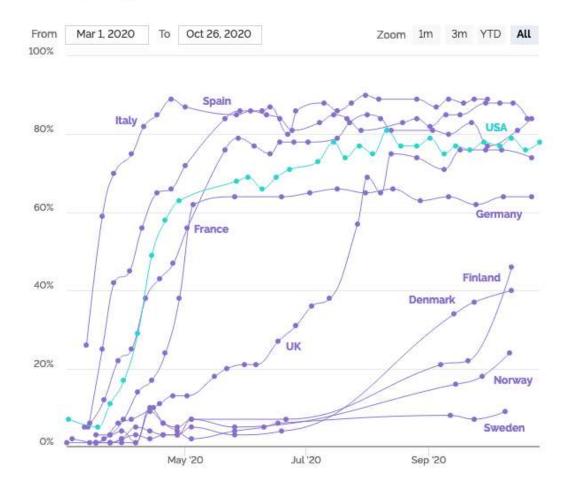


How about the United States? Americans have proven to be highly compliant with mask wearing, even higher than the Germans.

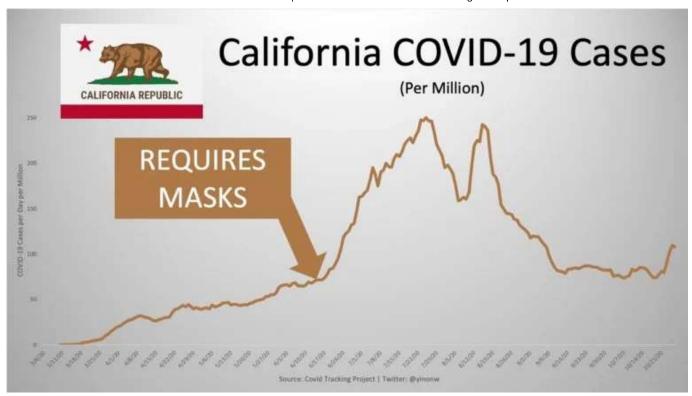
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YouGov COVID-19 behaviour changes tracker: Wearing a face mask when in public places

% of people in each market who say they are: Wearing a face mask when in public places.



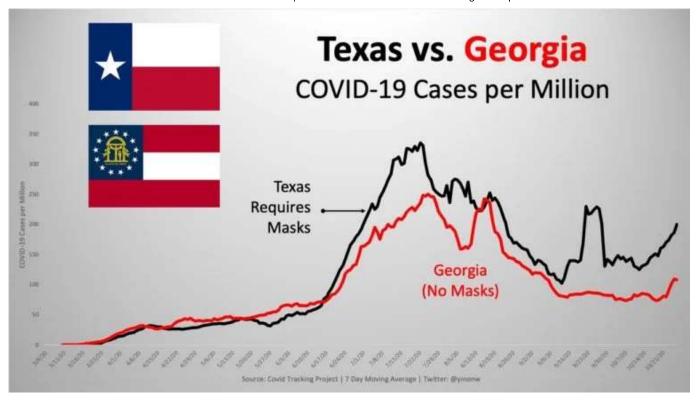
It is therefore no surprise that the same trends found in Europe are also found in U.S. states. For example, California required masks in June but cases still went up by more than 300 percent and the state remains heavily locked down four months later with still higher cases.



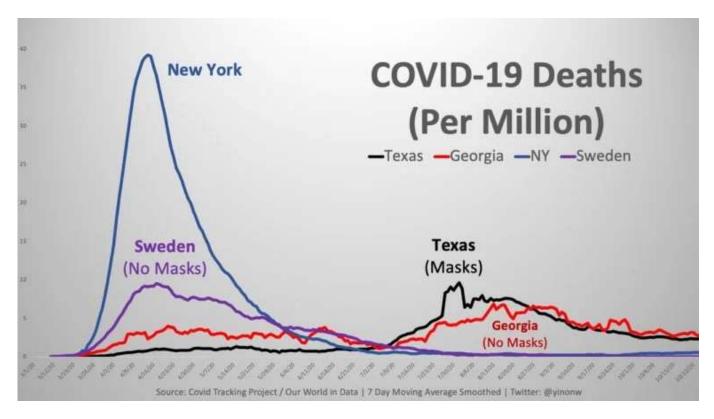
Hawaii suffered one of the most economically devastating lockdowns of all the U.S. states. It was also an early mover on mandating masks both indoors and outdoors, but cases still went up by almost 1,000 percent.



With and without mask mandates, Texas and Georgia followed nearly identical case development.



For those more interested in comparing deaths than cases, we again don't see a pattern of masks meaningfully helping.



Why Don't Masks Work?

Why don't masks work on the general public? For one, if you read the fine print on most consumer masks you will see something along the line of "not intended for medical purposes and has not been tested to reduce the transmission of disease." Masks can work well when they're fully sealed, properly fitted, changed often, and have a filter designed for virus-sized particles. This represents none of the common masks available on the consumer market, making universal masking much more of a confidence trick than a medical solution.

If we actually wanted effective masks, then manufacturers should be conducting scientific tests evaluating masks specifically for their ability to reduce the spread of coronavirus. The Food and Drug Administration and CDC should be making recommendations on which masks to use and approving masks based on their scientific efficacy rather than promoting the wrapping of any piece of miscellaneous cloth around your face.

Effective masks, if they exist, should then be distributed to highly vulnerable groups for use only in rare and extenuating circumstances. There would be little point for the population at large to wear masks all the time because while focused protection may be possible, it is not possible to eradicate the virus at this point or stop its spread.

Our universal use of unscientific face coverings is therefore dogma is closer to medieval superstition than it is to science, but perpetuated. many powerful institutions have too much political capital invested in the mask narrative at this point, so the dogma is perpetuated. The narrative says that if cases go down it's because masks succeeded. It says that if cases go up it's because masks succeeded in preventing more cases. The narrative simply assumes rather than proves that masks work, despite overwhelming scientific evidence to the contrary.

The narrative further ignores places like Sweden and Georgia, which never required masks in the first place, and it suppresses new scientific evidence if it doesn't support desired political results, such as data from the world's only randomized trial investigating if masks actually protect from COVID-19. Even a Nobel laureate has been canceled because his COVID charts and data were found to be undesirable.

Many powerful institutions have too much political capital invested in the mask narrative at this point, so the dogma is

History does not bode well for times that politics meddles with science. Martin Kulldorff, a professor at Harvard Medical School and a leader in disease surveillance methods and infectious disease outbreaks, describes the current COVID scientific environment this way: "After 300 years, the Age of Enlightenment has ended."

In the end, it will be the loss of credibility in our scientific institutions, and the unnecessary division they have sowed among us, for which masks will be remembered.

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Chapter Six - How To Muzzle The Masses

The great mask debate of 2020. We should not have to even address this topic but because of how politically charged it has become, we will. This is not meant to offend or even start further debate, but to illuminate how the mask mandates spiralled so far out of control.

The game started almost right away, and yes I mean game. As early as May of 2020 Governor Burgum began pandering to the masses to be wearing masks when in public. They are worn to protect others not to protect yourself. Emotional performances from the podium at the press conferences. The media soaking up every word, even on a national scale¹. The fighting on social media. The public shaming.

North Dakota, Gov. Doug Burgum became emotional Friday as he pleaded with residents not to divide themselves over mask wearing amid the coronavirus pandemic or shame those who choose to wear masks, but to instead be empathetic.

"I would really love to see in North Dakota that we could just skip this thing that other parts of the nation are going through, where they're creating a divide -- either it's ideological or political or something -- around mask versus no mask," Burgum, a Republican, said during a news conference Friday in Bismarck. "This is a, I would say, senseless dividing line."

He urged people to "try to dial up your empathy and your understanding."

"If someone is wearing a mask, they're not doing it to represent what political party they're in or what candidates they support," he said as his voice began to waver. "They might be doing it because they've got a 5-year-old child who's been going through cancer treatments. They might have vulnerable adults in their life, who currently have Covid and they're fighting."

Burgum argued that if somebody wants to wear a mask, there should be no shaming.

¹ https://www.cnn.com/2020/05/23/politics/doug-burgum-north-dakota-face-masks/index.html

"You should look at them and say that person's wearing a mask because for them, there's additional risk in their life," he added.

- Governor Doug Burgum, May 23rd, 2020 CNN.com

The first time masks where directly referenced in an Executive Order was 2020-08.2² issued on July 8th, 2020.

Whereas, citizens who were unemployed due to COVID-19 are returning to work under the ND Smart Restart guidelines, adopting social distancing, wearing masks, frequent hand-washing and other measures to mitigate the spread of coronavirus; and,

Social media exploded every article that referenced masks, COVID-19, the vaccine, became a politically charged debate as to who was more right. Suddenly if you didn't wear a mask you were part of the problem, you were risking other people's lives, you were a pro-Trumper (which I don't understand). If you wear a mask you are sheep, you are ignorant, you are part of the problem.

Neither side was really right or wrong.

The people who were truly forgotten in all this were those who for various reasons could not wear a mask. Those who had physical disabilities that caused breathing issues from lack of oxygen, like hypoxia. Those who had emotional disabilities such as rape victims, or those who suffered as victims of abuse. Those who had mental disabilities such as autism, depression.

The people who, in a lot of cases remained silent, because they could not find the strength to speak for themselves over the shouting of the masses. Governor Burgum played the media perfectly throughout the summer. Building his case towards what he really wanted. A divided population, so politically charged that they would not fight back as their spirits were broken.

² https://www.governor.nd.gov/sites/www/files/documents/executive-orders/Executive%20Order%202020-08.2.pdf

"We can debate on who does it and who makes the decision, but let's end the debate on whether or not it's a positive thing. It doesn't affect you if somebody else wears a mask - it actually helps you if somebody else wears a mask. So if you're someone who can't wear a mask for any reason, let's join in the chorus of thanking people that are, and having empathy to understand that they may have a reason, a family member, a child, someone else in close working conditions at work - that they have to do that."

- Governor Doug Burgum July 23rd, 2020³

August 10th, 2020 Governor Burgum announced the social media campaign #MaskUpND⁴, encouraging citizens to post photos of themselves wearing masks and posting them to their social media accounts. It was the first press conference that Governor Burgum approached the podium wearing a mask.

"In North Dakota, we're known as a state that takes care of each other. Masks are another way for us to show we care for others and our community. My mask protects you and your mask protects me," Burgum said.

- Governor Doug Burgum August 10th, 2020⁵

In August, two Vogel Law Firm employees posted a piece to the firm website entitled: COVID-19 Updates: Mask, Quarantine, And School Restart Guidance For North Dakota Employers⁶

...While Governor Burgum has not gone as far to mandate the wearing of masks, the Governor's ND Smart Restart Plan, issued in conjunction with the North Dakota Department of Health

 $\frac{https://www.grandforksherald.com/newsmd/coronavirus/6610725-Burgum-announces-new-mask-campaign-as-activ}{e-COVID-19-cases-hit-all-time-high-in-North-Dakota}$

 $\frac{https://www.governor.nd.gov/news/burgum-extends-drivers-license-renewal-deadlines-announces-precision-online-learning-tool-k-12$

 $\underline{https://www.vogellaw.com/blog/2020/08/covid-19-updates-mask-quarantine-and-school-restart-guidance-for-north-dakota-employers/}$

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³ https://news.prairiepublic.org/post/burgum-no-statewide-mask-mandate-time

(DoH), generally recommends that employers "[i]ncrease the availability of face masks and personal protective equipment to employees" and "[a]lways instruct employees to wear a face mask/cloth face cover while in the workplace." This general guidance within the ND Smart Restart Plan is not a legal requirement at this time, but nonetheless shows best practices for employers to follow, unless employers in certain industries would be subject to more specific face covering requirements...

- August 23rd, 2020

Six days later Dr. Deborah Brix visited North Dakota and took part in a round table discussion with Governor Burgum and others at North Dakota State University Alumni Center in Fargo. Masks were on the table for discussion with some of the following sentiment shared.

Birx urged North Dakotans to practice social distancing, wash their hands, avoid large gatherings and wear masks where social distancing isn't possible, noting those mitigation measures, combined with restrictions on indoor dining capacity and bars, have helped to reduce cases dramatically in southern states that saw outbreaks earlier this summer. Masks are especially important heading into the fall and flu season, she said.

"They're very critical right now in this area," she said. "It's important for us to wear masks to protect each other."

Burgum echoed the call to action, saying slowing the spread of the virus by following the ND Smart Restart⁷ guidelines is essential if North Dakotans want schools and businesses to remain open and activities such as sporting events to continue.

"Masks aren't a limit on our freedom, they're our path toward freedom," he said.'

KCSi News, August 29th, 202089

https://ndresponse.gov/sites/www/files/documents/covid-19/ND%20Smart%20Restart/Additional%20Resources/ND SmartRestartPlan.pdf

https://www.governor.nd.gov/news/governor-first-lady-welcome-dr-deborah-birx-nd-discussion-coronavirus-respon se-efforts

⁸ https://csinewsnow.com/?p=206856

On September 4th, 2020 masks officially hit the table in North Dakota. Under the guidance of acting State Health Officer Paul Mariani, the COVID Taskforce presented a powerpoint indicating that masks needed to be brought forth at a city and county level. They were suddenly front and center. The presentation slide had gone viral online over the weekend and people started contacting the Bismarck Mayor, Steve Bakken, regarding whether it would be on the docket or not for the meeting on September 8th, 2020.

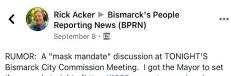


Keep in mind that on August 4th, 2020, Mayor Bakken launched a mask awareness campaign. His picture adorned walls and restrooms in every city owned building, reminding people to mask up.

"There are things we can do now and wearing masks is one of them that can help keep businesses open. My biggest concern is trying to keep the community of Bismarck financially viable and

maintain the economics we have right now. While not great at least it's working," shared Bakken.

- Bismarck Mayor Steve Bakken, August 4th, 2020 source KX-NET¹⁰



RUMOR: A "mask mandate" discussion at TONIGHT'S Bismarck City Commission Meeting. I got the Mayor to set the record straight. https://1033uscountry.com/mask-mandate-coming-to-bismarck/



Mask Mandate Coming To Bismarck???
Rumor were flying over social media over the weekend of a...

In a conversation with Bismarck Mayor Steve Bakken earlier Tuesday morning, he told me he has NO intention of implementing a mask mandate. It's not a point of discussion in tonight's city commission meeting. He also went on to say, "It's not even on the agenda and people should know the facts rather than just believing what's on social media." Over the weekend, Mayor Steve Bakken had over 70 plus residents reach out to him on city emails and social media, asking him to vote "NO" on a

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https://www.kxnet.com/news/local-news/bismarck-mayor-steve-bakken-launches-mask-awareness-education-campa ign/

mask mandate. According to Mayor Bakken there is no agenda item or vote on a mask mandate on tonight's city commission meeting at 5:15 pm.

- Interview conducted September 8th, 2020 source 103.3¹¹

The night of September 8th¹² turned into something else altogether though as Renae Moch, Director of Bismarck-Burleigh Public Health, and the lead on Burleigh-Morton COVID Taskforce (BMCT)¹³, brought the request of a mandate to the commissioners. Citizens had spoken out about it previous to her presenting the material even though it was not "on the agenda". Ultimately the vote was made to table the discussion until a later date.

This same tactic was used two days later, September 10th, 2020¹⁴, at the Morton County Commissioners Meeting. Commissioner Cody Schulz stated before the topic came up "*This is not an official public hearing*". Within Erina Ourada¹⁵ an Administrator with Custer Health and another task force member requested that the commissioner voted on it that night.

The same meeting right after Mrs. Ourada spoke, Dr. David Fields also of the BMCT said "*You cannot stop a virus*. ¹⁶" he went on to publicly admit that we are no longer dealing with the Wuhan strain of the coronavirus, and that it had mutated. That he had no idea what the long term effects of COVID-19 would be.

So how are we to know when this will end, or how many times citizens of North Dakota will be locked down to prevent the spread?

Before being brought to a motion in Morton County, Chairman Schulz made the following statement to those in attendance regarding the mask mandates:

¹¹ https://1033uscountry.com/mask-mandate-coming-to-bismarck/

¹² https://dakotamediaaccess.net/CablecastPublicSite/show/7502?channel=2 VIDEO

¹³ https://www.bismarcknd.gov/covidtaskforce

¹⁴ https://dakotamediaaccess.net/CablecastPublicSite/show/7509?channel=2 VIDEO

¹⁵ Morton County Commissioners Meeting - Video 50:43

¹⁶ Morton County Commissioners Meeting - Video 1:11:20



"Liberty and freedom are the foundation of our nation, and liberty and freedom in this context I believe means choice. I cannot support the mask mandate. I steadfastly have been a supporter of these concepts whether in the context of private property rights to my friends on the planning and zoning commission know, or in personal conduct. I do believe the virus does pose a real risk, especially to our vulnerable population, and that mask wearing can reduce transmission. But if government officials want to accomplish a desired outcome they should convince the public, and what I mean is persuasion rather

than regulation. I am a mask wearing advocate but a mask mandate opponent. But wherever you come down on the issue of wearing masks I ask that you have empathy for those on the other side of the issue. Freedom and liberty also apply to those who may disagree with us."

Commissioner Zachmeier also stated "I don't think that anything presented tonight rose to the level of a state of emergency that the county should be asking on this.", "This is a formal request and we should not take action on it." and finally, "A mandatory mask mandate should be proposed by the North Dakota Governor."

Ultimately the motion to deny enacting a mask mandate was unanimously passed. On November 9th, 2020¹⁷ Chairman Schulz would enact a mandate in Morton County without a commission vote on his way out of office as he chose not to run for reelection. This was one of the final two counties to press the threshold for Governor Burgum's metrics to issue a statewide mask mandate.

September 14th, 2020 Governor Burgum announced that the state would spend 1.8 million dollars to create a PSA ad campaign to encourage masking in North Dakota. The plan was

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widely criticized as a waste of funds, even leading to him being heckled by political opponent, Dr. Shelley Lenz¹⁸.

"COVID is not a problem that can be solved by marketing. It really needs to be part of a comprehensive plan to address COVID. I think public education is important, but it can't exist in a vacuum. Clearly, they've been marketing and that's been his strategy and it's not working," said Democratic Candidate for Governor Shelley Lenz.

The outcry from the citizens across the state silenced the debate until October 5th, 2020 when two proposed mandates came forward in Fargo at the City Commission Meeting¹⁹. The two mandates that were brought to the table for a vote included one with a penalty for non-compliance and one without a penalty²⁰²¹. The problem with both of these mandates is if the council would have passed them as worded they would have instantly become illegal. Since they were drafted referencing NDCC 40-05.1-05²², which requires a city wide vote passed by a majority of qualified voters, not the city council.

40-05.1-05. Ratification by majority vote - Supersession of existing charter and state laws in conflict therewith - Filing of copies of new charter. If a majority of the qualified voters voting on the charter at the election vote in favor of the home rule charter, the charter is ratified and is the organic law of the city, and extends to all its local and city matters. The charter and the ordinances made pursuant to the charter in such matters supersede within the territorial limits and other jurisdiction of the city any law of the state in conflict with the charter and ordinances and must be liberally construed for such purposes. One copy of the charter ratified and approved must be filed with the secretary of state and one with the auditor of the city to remain as a part of its permanent records. Thereupon the courts shall take judicial notice of the new charter

¹⁸ https://www.kfvrtv.com/2020/09/15/nd-looking-for-18-million-mask-wearing-psa-partner/

¹⁹ https://download.fargond.gov/a/151-1-1.m4v - Video Fargo City Commission Meeting 10/05/2020

²⁰ https://download.fargond.gov/0/oct5regularagenda.pdf Pages 157-163

²¹ Appendix C - Fargo Mask Mandates

https://www.legis.nd.gov/cencode/t40c05-1.pdf#nameddest=40-05p1-05

October 19th, 2020 the Fargo Mayor, Dr. Tim Mahoney went around the Fargo City Council implementing his own mask mandate²³, effective immediately. Dr. Mahoney utilized emergency powers to enact the order which created a rift within the city council²⁴, with members actively trying to end his emergency powers.

"We need to get back to normal government where five commissioners debate, decide on the issues and then we have to answer to the people who voted us in," said Commissioner Tony Gehrig. "Not one man. Not the man who is crowned king for a day. I won't be an elected standbyer quite frankly. I move the City Commission end Fargo's emergency declaration effective immediately."

- Commissioner Tony Gehring, November 16th, 2020 SOURCE KVRR

October 19th, 2020 Minot Mayor, Shaun Simpa, instated a mask mandate almost identical to the one issued in Fargo by Dr. Mahoney. Again listing exemptions for those unable to wear masks for health or medical reasons²⁵.

- a. Persons younger than school age, although parents and guardians are encouraged to have such younger children wear face coverings when and where appropriate;
- b. Persons with a medical condition or disability that prevents wearing a face covering;
- c. Persons performing job duties where a six (6) feet distance is not achievable, but a mask is inhibitory to the ability to safely and effectively perform the job duty;
- d. Persons participating in athletic activities where a six (6) feet distance is not achievable, but a mask is inhibitory to the activity;
- e. Persons actively consuming food or drink;
- f. Persons driving a motor vehicle alone or with passengers from the driver's household;
- g. Persons receiving services that require access to the face for security, surveillance, or other purposes may temporarily remove a face covering while receiving those services;
- h. Persons engaged in religious worship activities; however, face coverings are strongly encouraged;

²³ https://download.fargond.gov/0/mayoral_mask_mandate.pdf

https://www.kvrr.com/2020/11/16/city-commissioners-try-to-strike-down-mayor-mahoneys-covid-19-order/https://www.minotnd.org/DocumentCenter/View/5705/Mayoral-Mask-Mandate

i. Persons giving a speech or performance for broadcast or to an audience; however, those persons shall safely distance from nearby individuals.

October 21st, 2020 West Fargo implements mask mandate²⁶.

October 25th, 2020 I had reached out to all of the legislative leaders in an email thread regarding the state of emergency. On October 26th, 2020, Senator Anderson had responded back to be again saying I should not be concerned. In my response that went to him as well as the legislative leaders, Lt. Governor Brent Sanford, and Jace Beehler I said the following, warning them of the matrix that was being used by the Governor.

"...All while watching everything come together within a few days of when I expect them to.

There is a predictable pattern in play based on metrics, and I'm averaging within 5 days of when

I figure it will be enacted. God save us if we hit 15% positive per capita.

If Bismarck, Dickinson, and Williston pass a mask ordinance it will be issued statewide through executive order as 3 of the 6 most populated cities already have one in place. 2020-13²⁷ is proof of that as it cites 33 of 53 counties. The whole process is being controlled by manipulating the numbers to incite fear."²⁸

October 26th, 2020 was a very busy day in North Dakota. First there was the second visit from Dr. Deborah Birx where she went on to blame the high spread of COVID-19 on the lack of mask wearing and social distancing while indoors.

North Dakota is doing a "superb" job of testing and finding COVID-19 cases, Birx said.

²⁶ https://www.westfargond.gov/AgendaCenter/ViewFile/Item/151?fileID=7561

 $[\]underline{https://www.governor.nd.gov/sites/www/files/documents/executive-orders/Executive\%20Order\%202020-13\%20Ele\ \underline{ctions.pdf}$

²⁸ See Lighting up the Legislators for full text.

"But there's a whole other set of cases underneath those cases, of asymptomatic young people who are still getting together, or even 40-, 50- and 60-year-olds who I saw throughout Bismarck not wearing masks and not physically distancing yet being indoors," she added.²⁹

- North Dakota Department of Health

Everyone had their own thoughts regarding the issue with Governor Burgum and Mayor Bakken regarding the mask mandates, again deflecting it away from themselves.

"We know we don't have the enforcement mechanisms in North Dakota where someone is gonna be forced to wear a mask. So it all comes back to individuals choosing," Burgum said.

Some cities already have issued mask mandates. Birx said if enough cities get onboard the data shows improvement in their case numbers.

"In some situations, counties and individual mayors have created a matrix that is essentially resulted in a statewide mandate when you add them all together," she said.

But not all North Dakota cities are joining this matrix. Bismarck Mayor Steve Bakken has repeatedly spoken out against voting for a mask mandate in his city. However, he hinted at a mandate being more useful if it were statewide.

- KFYR-TV October 26th, 2020³⁰

Dr. Birx would resign her position a few days before Christmas amidst public outcry after she went against her own standards to visit with family over the Thanksgiving weekend.

WASHINGTON - A health expert who often shares the spotlight with her Coronavirus Task Force colleague, Dr. Anthony Fauci, is resigning following public criticism of her decision to attend a family gathering during an especially troublesome period of the pandemic.

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 $\frac{https://www.health.nd.gov/news/burgum-welcomes-dr-deborah-birx-back-north-dakota-discuss-coronavirus-challen}{ges-response}$

 $\underline{\text{https://www.kfyrtv.com/2020/10/26/birx-visits-nd-state-and-local-govt-disagree-on-where-mask-mandate-should-come-from/}$

While Dr. Fauci and the CDC outspokenly recommended avoiding holiday gatherings with individuals outside of one's household, his fellow Task Force member, Dr. Deborah Birx, attended a family Thanksgiving Dinner with family members who are not members of her personal household.³¹

By this point though the havoc she created in North Dakota with her visits had already done its damage.

October 26th, 2020 the Devils Lake City Commission approved the mandate, which does not include a penalty, during a special meeting Monday, Oct. 26. The mandate went into effect at 8 a.m. Thursday, Oct. 28. The mandate itself was still being written³².

October 26th, 2020 the Grand Forks City Commission passed mask mandate³³ on a 7-0 vote. One of the commissioners wondered as to why they went through the procedure when the mayor could enact one on his own.

October 27th, 2020 the Standing Rock Sioux Tribal Chairman, Mike Faith issued and Executive Order mandating masks to be worn³⁴³⁵.

On October 27th, 2020³⁶ the showdown in Bismarck began as people lined the halls and stood in front of the City Building protesting the mask mandate that had been proposed. Drafted by City

https://www.wbrz.com/news/member-of-white-house-s-covid-task-force-announces-resignation-plans-amid-controversy/

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https://www.grandforksherald.com/news/government-and-politics/6734723-Devils-Lake-City-Commission-approves-mask-mandate-starting-Thursday-morning

 $\frac{https://www.grandforksherald.com/news/government-and-politics/6734761-Grand-Forks-City-Council-unanimously-passes-mask-mandate}{}$

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https://www.kxnet.com/news/local-news/executive-order-issued-requires-use-of-face-masks-on-standing-rock-reser vation/

³¹

³⁵ https://www.kxnet.com/wp-content/uploads/sites/16/2020/10/EO-Mask-Mandate.pdf

³⁶ https://www.bismarcknd.gov/AgendaCenter/ViewFile/Item/5560?fileID=13351

Attorney Janelle Combs and Commissioner Nancy Guy, the original drafting of the Pandemic Mitigation Strategy (P.M.S.)³⁷ Plan did in fact have penalties in place for failure to comply.

Five hours³⁸. The meeting from beginning to end went for five hours as citizens pleading their case and doctors stormed into the room on Zoom calls. It was supposed to be in a format where each individual was only allowed three minutes to speak. One of the doctors, Dr. Kathy Anderson, was allowed two additional times to speak, while citizens of the city were asked to finish as their three minutes expired. At the end of the meeting the mandate passed at a vote of 3-2 but only after the fines were removed from it, and wording changed to better accommodate worship services.

November 9th Williston and Morton County issued mask mandates.

November 10th, 2020 Burleigh County Commissioner, Jerry Woodcox issued a mask mandate completing the list of most populated counties in North Dakota having mandates in place.

Commission Woodcox was ousted from his seat 7 days prior, being voted out of office.

The morning of November 12th, 2020 saw the state legislators meeting at the capital to begin their planning for the next legislative session. All of them signing their new oaths of office before moving on to the first order of business. Passing rules for the session, including masking while in the chamber. They overwhelmingly voted to muzzle themselves, proving to the constituents of the state where they truly stood.

November 12th, 2020 Grand Forks County talked about enforcing a mask mandate with a fine of 1500 dollars and a class B Misdemeanor. Wear a mask or you're a criminal... Didn't it used to be the other way around?

³⁷ https://www.bismarcknd.gov/DocumentCenter/View/36623/Pandemic-Mitigation-Strategy-Signed

³⁸ https://dakotamediaaccess.net/CablecastPublicSite/show/7583?channel=2 Bismarck Meeting Video

The worst part about all of the mandates was that the mayors were consulting with their city attorneys and being told that everything they are doing is fine to do. That Governor Burgum's Executive Orders were the law, when in fact they were not.

10pm. November 13th, 2020. Two orders dropped within minutes of each other including the statewide mask mandate. This was hours after legislators had gone home with the assurance that there would not be a mandate put into place. Governor Burgum released a video explaining why he was allowing the mandate to be put into effect again spewing propaganda. The fact that in a side by side comparison to the video he released on veterans day wearing the exact same clothes and identically matching microphone placement was not lost on anyone.

State Health Officer Order 2020-08³⁹

STATE OF NORTH DAKOTA DEPARTMENT OF HEALTH STATE HEALTH OFFICER ORDER RELATING TO DISEASE CONTROL MEASURES TO PREVENT THE SPREAD OF 2019-nCoV/COVID-19 PURSUANT TO NORTH DAKOTA CENTURY CODE § 23-01-05(12)

ORDER # 2020-08

SECTION A: FINDINGS

- The Director General of the World Health Organization has declared that the 2019nCoV/COVID-19 constitutes a Public Health Emergency of International Concern. The Secretary of the U.S. Department of Health and Human Services has declared that 2019nCoV/COVID-19 constitutes a public health emergency.
- 2. On March 13, 2020, President Donald Trump issued a declaration of national emergency due to the growing 2019-nCoV/COVID-19 crisis in the United States.
- 3. On March 13, 2020, Governor Doug Burgum declared a state of emergency in response to the public health crisis resulting from 2019-nCoV/COVID-19; Executive Order

³⁰

- 2020-03 activated the State Emergency Operation Plan (SEOP), implementing appropriate response and recovery actions and future mitigation measures.
- 4. The number of 2019-nCoV/COVID-19 cases in North Dakota has increased rapidly in recent weeks. The health care system in North Dakota is experiencing critical shortages. Increased transmission of 2019-nCoV/COVID-19 poses a substantial threat to public health and the health care system.
- 5. The virus that causes 2019-nCoV/COVID-19 is spread from person to person through respiratory droplets produced by an infected person. People who are physically near a person with 2019-nCoV/COVID-19, within six feet, or have direct contact with that person are at greatest risk of infection. As such, 2019-nCoV/COVID-19 transmission is elevated in confined indoor spaces and places where physical distancing measures are not always possible.
- 6. According to the Centers for Disease Control and Prevention (CDC), face coverings are effective in preventing the transmission of respiratory droplet that may spread 2019-nCoV/COVID-19. The Federal Occupational Health and Safety Administration recommends that employers encourage employees to wear face coverings at work to assist in reducing the risk of transmission of 2019-nCoV/COVID-19 by asymptomatic and pre-symptomatic individuals.
- 7. Research suggests that universal use of face coverings in enclosed public spaces would substantially reduce the spread of 2019-nCoV/COVID-19. As a result, the use of face coverings is necessary to prevent the spread of 2019-nCoV/COVID-19 and reduce the significant burden on the health care system.
- 8. Pursuant to N.D.C.C. § 23-01-05(12), the State Health Office is authorized to "issue any orders related to disease control measures deemed necessary to prevent the spread of communicable diseases." Therefore, this Order is authorized pursuant to N.D.C.C. § 23-01-05(12).

SECTION B: REQUIREMENTS

1. Effective November 14, 2020, at 12:01 a.m. through December 14, 2020, at 12:01 a.m., face coverings are required in indoor businesses and indoor public settings, as described in this Order. Face coverings must also be worn in outdoor business and public settings

- when it is not possible to maintain physical distancing. This order applies to all workers, patrons, customers, visitors or guests unless exempt under Paragraph 4 of this Order.
- 2. Definitions. For purposes of this Order, the following terms are defined as follows:
 - a. A "face covering" must be worn to cover the nose and mouth completely and consist of at least two layers. Face coverings can include a paper or disposable face mask, a cloth face mask, a neck gaiter, or a religious face covering.
 Medical-grade masks and respirators are sufficient face coverings, but to preserve adequate supplies, their purchase and use is discouraged for individuals who do not work in a health care setting or in other occupations that require medical-grade protective equipment (e.g., certain construction occupations).
 Masks that incorporate a valve designed to facilitate easy exhaling, mesh masks, or masks with openings, holes, visible gaps in the design or material, or vents are not sufficient face coverings because they allow exhaled droplets to be released into the air.
 - b. "Business" and "businesses" are broadly defined to include entities that employ or engage workers, including private-sector entities, public-sector entities, non-profit entities, and state, county, and local governments.
 - c. "Worker" and "workers" are broadly defined to include owners, proprietors, employees, contractors, vendors, volunteers, and interns.
 - d. "Physical distancing" means individuals keeping at least 6 feet of distance from other individuals who are not members of their household.
 - e. "Household" means a group of individuals who share the same living unit.
- 3. Tribal activities and lands. Activities by tribal members within the boundaries of their tribal reservations are exempt from the restrictions in this Order but may be subject to restrictions by tribal authorities.
- 4. Exempt individuals. The following individuals are exempt from face covering requirements of this Order:
 - a. Individuals with a medical condition, mental health condition, or disability that makes it unreasonable for the individual to maintain a face covering. This includes, but is not limited to, individuals who have a medical condition that compromises their ability to breathe, and individuals who are unconscious,

- incapacitated, or otherwise unable to remove a face covering without assistance. These individuals should consider using alternatives to face coverings, including clear face shields, and staying at home as much as possible.
- b. Children who are four years old and under. Those who are under two years old should never wear a face covering due to the risk of suffocation. Those who are at least two are encouraged to wear a face covering if they can do so in compliance with CDC guidance on How to Wear Cloth Face Coverings, available at https://www.cdc.gov/coronavirus/2019-ncov/prevent-gettingsick/how-to-wear-clothface-coverings.html (i.e., without frequently touching or removing the covering).
- c. Individuals at their workplace when wearing a face covering would create a job hazard for the individual or others, as determined by local, state or federal regulators or workplace safety and health standards and guidelines.
- 5. Situations where face coverings are mandatory. Except for individuals who are exempt under paragraph 7 of this Order, and except for the circumstances described in paragraph 9, individuals are required to wear a face covering:
 - a. In an indoor business or public indoor space, including when waiting outdoors to enter an indoor business or public indoor space.
 - i. This requirement does not apply in living units except that workers entering another person's living unit for a business purpose are required to wear a face covering when doing so.
 - ii. This requirement also does not apply in a private vehicle that is being used for private purposes.
 - b. At an outdoor business or public outdoor space in situations where physical distancing cannot be maintained.
 - c. When riding on public transportation, in a taxi, in a ride-sharing vehicle, or with another person, who is not a member of the same household, in a vehicle that is being used for business purposes.

⁴⁰ https://www.cdc.gov/coronavirus/2019-ncov/prevent-gettingsick/how-to-wear-cloth-face-coverings.html

- 6. Circumstances where mandatory face coverings may be temporarily removed. Face coverings required under Paragraph 8 of this Order may be temporarily removed under the following circumstances:
 - a. When participating in organized sports in an indoor business or indoor public space while the level of exertion makes it difficult to wear a face covering.
 - b. When testifying, speaking, or performing in an indoor business or public indoor space, in situations or settings such as theaters, news conferences, legal proceedings, governmental meetings subject to N.D.C.C. ch. 44-04, presentations, or lectures, provided that physical distancing is always maintained. Face shields should be considered as an alternative in these situations.
 - c. During practices or performances in an indoor business or indoor public space when a face covering cannot be used while playing a musical instrument, provided that physical distancing is always maintained.
 - d. During activities, such as swimming or showering, where the face covering will get wet
 - e. When eating or drinking in an indoor business or indoor public space, provided that at least 6 feet of physical distance is maintained between persons who are not members of the same party.
 - f. When asked to remove a face covering to verify an identity for lawful purposes.
 - g. While communicating with an individual who is deaf or hard of hearing or has a disability, medical condition, or mental health condition that makes communication with that individual while wearing a face covering difficult, provided that physical distancing is maintained to the extent possible between persons who are not members of the same household.
 - h. While receiving a service, including a dental examination or procedure, medical examination or procedure, or personal care service, that cannot be performed or would be difficult to perform when the individual receiving the service is wearing a face covering. Workers performing services for an individual who is allowed to temporarily remove their face covering under this provision must comply with the face covering requirements.

- i. When an individual is alone, including when alone in an office, a room, a cubicle with walls that are higher than face level when physical distancing is maintained, a vehicle, or the cab of heavy equipment or machinery, or an enclosed work area.
- j. When a public safety worker is actively engaged in a public safety role, including but not limited to law enforcement, firefighters, or emergency medical personnel, in situations where face coverings would seriously interfere in the performance of their public safety responsibilities.
- k. When an individual is participating in a religious service at a faith based organization, provided that physical distancing is maintained to the extent possible between persons who are not members of the same household.
- 7. Notice of face covering requirements. Businesses must post one or more signs that are visible to all persons—including workers, customers, and visitors—instructing them to wear face coverings as required by this Order.
- 8. Implementation of face covering requirements by businesses.
 - a. Businesses must require that all persons, including their workers, customers, and visitors, wear face coverings as required by this Order.
 - b. When possible, businesses must provide accommodations to persons, including their workers and customers, who state they have a medical condition, mental health condition, or disability that makes it unreasonable for the person to maintain a face covering, such as permitting use of an alternate form of face covering (e.g., face shield) or providing service options that do not require a customer to enter the business.
 - c. Businesses may not require customers to provide proof of a medical condition mental health condition, or disability, or require customers to explain the nature of their conditions or disability.
 - d. Businesses must follow the requirements of other applicable laws with respect to whether a business may require a worker to provide documentation of a medical condition, mental health condition, or disability related to their inability to wear a face covering and what the business may ask regarding the condition or disability.

- e. Nothing in this Order requires businesses or their workers to enforce this requirement when it is unsafe to do so, or authorizes them to restrain, assault or physically remove workers or customers who refuse to comply with this Order.
- f. Nothing in this Order authorizes businesses or their workers to violate other laws, including anti-discrimination laws.
- 9. More protective policies permitted. Nothing in this Order should be construed to prevent a business from developing a policy that imposes more protective requirements with respect to face coverings, consistent with applicable law, than those in this Order or applicable industry guidance. This Order does not authorize landlords or property managers to require tenants and others to wear face coverings in tenants' living units. Landlords and property managers must provide a clear means for tenants and others to request a reasonable accommodation to face covering requirements in common areas.
- 10. Enhanced local measures permitted. Nothing in this Order should be construed to prohibit or prevent political subdivisions from implementing, within their jurisdictions and pursuant to applicable law and authority, requirements beyond those contained in this Order. Political subdivisions may not relax or reduce this Order's requirements. In other words, to the extent that they have authority to do so, cities and other political subdivisions may take actions that are more protective of the public health, consistent with applicable law, but may not take actions that are less protective of the public health.

SECTION C: FAILURE TO ADHERE TO ORDER

Notice is further given that a person is guilty of an infraction if that person violates or fails to obey any order issued by the State Health Officer. N.D.C.C. § 23-07-21(1).

SECTION D: STATE HEALTH OFFICER EXECUTION

Dated this 13 day of November, 2020.

Dirk Wilke, J.D., M.B.A.

State Health Officer North Dakota Department of Health

If you are wondering what your criminal charge is.

23-07-21. Penalties. Except as otherwise provided in this section, a person is guilty of an infraction:

- 1. Who violates or fails to obey any provision of this chapter, any lawful rule made by the state department of health, or any order issued by any state, district, county, or municipal health officer:
- 2. Who violates any quarantine law or regulation, or who leaves a quarantined area without being discharged; or
- 3. Who, knowing that the person is infected with a sexually transmitted disease, willfully exposes another person to infection.

Any person required to make a report under section 23-07-02.1 who releases or makes public confidential information or otherwise breaches the confidentiality requirements of section 23-07-02.2 is guilty of a class C felony

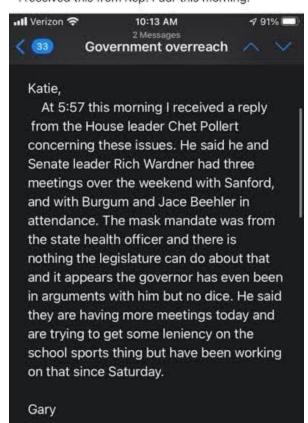
After the Order released in conjunction with Executive Order 2020-43, which will be addressed

later on, there was a massive public outcry.

Legislators inbox exploded with messages from parents enraged by the new orders demanding that they take action. The most telling response though was the lie's that were told to the citizens of North Dakota. That the legislators could not stop Governor Burgum's actions. That the Governor said that he could not end the mask mandate. They went on and on.

The problem with the statement that Governor Burgum stated is that he in fact gave the State Health Officer the ability to issue orders with Executive Order 2020-14. So not only was he caught in a lie, but the Legislative Leaders Chet Pollert and Rich Wardner

I received this from Rep. Paur this morning.



They went so far as to stand on the stage with the Governor less than a week later and spew the same rhetoric that he was.

On the 9th of December 2020, a revised version of the mask mandate came out. The differences between State Health Officer Order 2020-08 and 2020-08.1⁴¹ were almost laughable. The point of it was literally to remove the original expiration date and to extend the mandate into January of 2021.

Requirements

Line 5, Section C removed ... or with another person, who is not a member of the same household.

Section D: Revocation and Effectiveness

This Order revokes and supersedes the Order #2020-08: State Health Officer Order Relating to Disease Control Measures to Prevent the Spread of 2019-nCoV/COVID-19 Pursuant to North Dakota Century Code 23-01-05(12), dated November 13, 2020

The requirements of this Order are effective upon execution of this Order by the State Health Officer and until January 18, 2021, at 12:01 AM.



The final thoughts on this chapter come from the words of the North Dakota Vaccination plan that was released as a draft on October 16th, 2020 through Governor Burgum's Facebook Page. Page 7 of the Vaccination Plan:

41

Benefits of a safe and highly effective COVID-19 vaccine that is accepted by a majority of the population above and beyond reductions in morbidity and mortality could include:

- Less visitor restrictions at long term care (LTC) facilities;
- Students attending school oi-n with less interruptions;
- Reduced use of personal protective equipment (PPE);
- Reduced need for testing;
- Reduced need for masking;
- Reduced need for contact tracing;
- Increased social interactions, including large gatherings;

Economic resiliency and improvement.

Ultimately, COVID-19 vaccination will hopefully lead to a better, safer, and healthier future for all North Dakotans.

HB 1323

COVID has made it very apparent that ND government has decided it knows and understands my health and my body better than I do. I do NOT agree with this supposition AND vigorously defend my right to avoid conflict in a public setting, just so I can remain health and determine my own health needs.

By having mask mandates, at each and every level – city, county, state - we are being held hostage and governed by the health department. Last time I looked I did NOT elect anyone from the Health Department, nor did I grant anyone there the right to legislate my health directive.

I have been accosted in stores by complete strangers who have taken it upon themselves to demand I either comply or leave, demand to view my health records (HIPPA anyone?), blamed me for the entire pandemic (If YOU had just worn a mask for 2 weeks, this would all be over!) and refuse to check me out simply due to my not wearing a mask.

The Health Department has created its own little community army of sanctimonious enforcers who have taken it upon themselves to see that everyone does as ORDERED or they are refused service. Can you imagine the uproar if I was gay, a person of color, or Muslim and was refused service? Why is this any different? Oh yes, because wearing a mask shows just how much I CARE for the people around me.

BTW I also resent having MY TAX DOLLARS used for this propaganda. What will be the final bill when all these instructions are finally shelved? Hundreds of thousands? Millions? TV and radio ads, billboards, social media campaigns.....not exactly money well spent.

I urge you to all remember a little item called the CONSTITUTION of the United States, which is supposed to allow personal FREEDOMS and should supersede Health Department rule. I will be interested in how each and every one of you votes. Who voted for freedom, and who decided to pass the buck to avoid making the correct decision, the decision for personal responsibility and choice.

House Political Subdivision Committee

Chairperson and committee members

I am writing in support of HB1323 and request a do pass vote.

It is not the Government's responsibility to mandate a face covering. It is an illegal overstep of our constitutional freedoms and must be ceased.

This mandate madness has divided our communities and pitted people against people and people against businesses. Employees are suffering as they work while breathing in their own waste.

If masks are mandated, the least that should be expected is the people will be give solid proof that a mask works. There is no proof, furthermore there is proof to the contrary and to mandate something that is not only unhealthy but dangerous to the wearer's health will result in liability and lawsuits.

Vote yes on HB1323

Thank you for your time and consideration

HB 1323

House Political Subdivisions

Chairman Dockter and Committee Members,

I am in support of HB 1323

Our founders lived in the midst of the greatest tyranny America has ever known. It was wrecking their churches, destroying their businesses, and tearing apart families and homes. Even in their day of limited technology they knew who the enemy was; not a King, not a country, not even a virus. They understand the enemy to be *anything* that jeopardized the inherent and individual rights of the people. They know from personal experience that when essential liberties of the people are even partially limited by government force, they are never truly restored. Our founders spoke incessantly of the importance of full securing our individual rights.

Our State Constitutions and the Constitution of these United States were established as written standards to protect the individual from the will of the majority, to secure the rights of the minority. Ironically, the needs of the many argument used today to justify a cry for national curfews, business closure, and forced quarantine, justified by the needs of the many, is the same argument used throughout history to justify slavery and the voluntary and indefinite incarceration of innocent people, even in America's history. If residents wish to voluntarily follow guidelines and act responsibly, then so be it. But when business owners, Pastors of churches, and Sheriffs' defending rights, refuse to obey any of these unconstitutional mandates, they are not acting lawlessly because it is actually these in government who are violating the Supreme Law of the land. These individuals are *enforcing* the law in the face of lawless government.

These two paragraphs are from an article written by KrisAnne Hall (Constitutional Attorney)

I urge a Do Pass for HB 1323

Thank you

Gordon Greenstein

Testimony to the **Political Subdivisions Committee**February 4, 2021
Chad Peterson, Cass County Commission Chair

Regarding: House Bill 1323

Chairman Dockter and members of the House Standing Political Subdivisions Committee, I am Chad Peterson, Cass County Commission Chair, and I am writing to request a **DO NOT PASS** for House Bill 1323. I appreciate and share the desire to protect individual freedoms and liberties. As public servants, this is one of our core responsibilities. I also appreciate the responsibility to protect both public and staff health.

First, over the last year the COVID-19 pandemic has forced federal, state, and local governments to balance individual freedoms and liberties with public health is ways never encountered before. In Cass County we took several steps, beginning in March & April 2020 to protect the health & welfare of county employees and citizens doing business with the County. In May, in response to the clear and direct messaging from employees, members of the public as well as federal, state, and local public health experts, we added a mask requirement. In October, as the numbers of cases and hospitalizations in North Dakota increased, Cass County amended the mask requirement directing employees to wear masks whenever they were not alone at their workspace. Neither the initial mask requirement or the revised policy were implemented lightly. We understood there was, out of a preponderance of caution, the ability to provide potential protection to ourselves, our co-workers and fellow citizens – as well as the parents, grandparents and medically fragile friends and relatives our employees and citizens care for away from the workplace. Had it been in effect, House Bill 1323 would have prevented the county from adding the mask requirement.

Second, House Bill 1323 is so broadly written it would prevent the use items like 'spit shields' (also known as 'spit masks') in places like the Cass County jail. These items are used if an inmate is trying to bite or spit on a deputy or inmate. These items keep our corrections officers and other inmates safe from any number of potential diseases that can be spread via bodily fluids.

Finally, House Bill 1323 is so broadly written it would prevent the mandatory use of using masks or face/ eye protection required when members of our vector control (i.e. mosquito control) or weed control staff when utilizing potentially harmful chemicals. An example of this would be an item like respirator masks that is sometimes required to keep our team safe from inhaling harmful vapors. Should the person opt to not use them for whatever reason they could get ill and, as odd as it may sound, the county could potentially be held as liable.

Again, I urge a **DO NOT PASS** for House Bill 1323. Local control allows local leaders to make decisions in the best interest of our coworkers and constituents regarding any number of matters and these decisions should remain at that level. I would be available for any questions.

Dear Committee Members,

The effectiveness of masking is not creating a benefit that is outweighing the cost that it has become to businesses, freedom, family interaction, fun, and well just about every aspect of life. The affects of the masking and lockdowns seem like they have proved more destructive results than Covid itself seems to have ever shown. So why continue on with this game of destroying life as we once knew it? We should have the freedom to decide for ourselves how we want to live our lives and health and wellness. If I want to get Covid, no body has the right to tell me that I must protect myself. They have the freedom to protect themselves if there really was evidence that they were protected by sheltering and masking.

I believe the reality of our immune systems were created to fight off sickness and viruses, and if we remove challenges to our immune system, which are created to be challenged in order to remain strong, we become weaker individuals and become more prone to sickness. Again I just cannot leave out sound reasoning in all of this. It was only a few years ago that hand sanitizer was debunked as something that made viruses more wide spread. It was basically being removed from hospitals, but now it is supposed to be a life saver, next to the mask that has been proven to have no great effect in stopping a virus that is small enough to pass through the mask. How did it change over night to fit the political agenda? Its like trying to hold up a chain link fence in front of you while someone shoots you with a shot gun. I mean, how much of that bullet is going to be stopped by the chain link fence! Let's get beyond the fear and manipulation tactic, get back to reality and back to nutrition, and living and trusting that we cannot re number our days by any amount of government control tactics.

Let's let businesses, schools, and the rest of life go back to freedom to not be governed by mandate, but by the people.

Lori VanWinkle

I am asking that you DO PASS HB 1323 regarding limiting mask wearing requirements.

Before the political chaos that was 2020, science was clear that masks, especially fabric masks worn by healthy people, outside of a medical setting, were ineffective at preventing transmission of viruses and would never have been recommended or required to be worn. The science regarding their ineffectiveness is still true, though now we realize how detrimental face coverings can be both for health and mental health reasons.

Every place that has mandated masks, has seen increases in illness, not a decrease as they have been credited. We have **spent millions of dollars** trying to convince the smart people of North Dakota of the **illogical motto that masks work, they show caring, and have no risks.** All along knowing that the health of the person is far more important to preventing illness than wearing random pieces of fabric over the face.

I want this law in place to support my decision, and my family's decision, to decide what medical products we use or don't use. Masks are not harmless and should not be required. They are not effective so should not be required. Millions have been wasted already on this lie. Let's make sure that it doesn't take over our good judgement again.

Knowing what we know now, please support this bill and it's goal of limiting mask requirements. If you want to be caring, smile and lend a hand to your neighbor. **Masks are not magic** and have not earned the role of "savior" from illness.

Erin J McSparron

Vote yes to HB 1423

Dear Legislators,

Good afternoon! Thank you for listening to me today. Please keep freedom and choices available as viable options for ND citizens and say yes to Bill 1423 because it will open doors for us and it will continue to motivate our citizens to intelligently research and to wisely conclude the role mask wearing will play in our various businesses and the lives of ND individuals. There are important variables which need to be considered and applied in each individual case represented. This reality necessitates the move to end any mask mandates.

Thank you for your attention to this matter. Please vote yes to HB 1423.

Sincerely, Alida Arnegard Member of NDCA Watford City, ND

Testimony in favor of HB 1323

Chairman Dockter and Representatives of the House Political Subdivision Committee,

I am in favor of HB 1323 because it allows the citizens of ND the Freedom to choose whether to wear a mask or not wear a mask and most importantly allows our children to go to school with the same choice.

I am concerned about North Dakotans loosing their freedoms but I am also a concerned mother of three children, 5, 8, and 10. I have two children in the Bismarck School District where they are required to wear a mask to school every day in the classroom, gym class, and the playground. At this point I'd say my children have mask fatigue. I think there are many children with mask fatigue, in fact a recent study done in Germany ("Corona Children Studies "Co-Ki": First Results of a Germany-wide Registry on Mouth and Nose covering (mask) in Children") supports this. This study consists of data entered from 20,353 people on a total of 25,930 children. Impairments caused by wearing the mask were reported by 68% of the parents. These included irritability (60%), headaches (53%), difficulty concentrating (50%), less happiness (49%), reluctance to go to school/kindergarten (44%), malaise (42%), impaired learning (38%), and drowsiness or fatigue (37%). I personally could add to this, fainting. On October 1st I received a phone call that my daughter had fainted at school and to come to her classroom. My daughter has never fainted before in her life, she is a very healthy 10 year old. My first thought was because of the mask and I 100% believe that is the reason she fainted. It was a very scary situation for a 10 year old to go through in front of a classroom of her peers. When I arrived to pick her up she was still lying on the floor of her classroom unable to even sit up. She was pushed out of the school to my car in a wheelchair. I saw her go from very lifeless on the floor back to 100% within a half hour. We are very lucky she was not injured. Bismarck Public Schools has been asked to sign a liability waiver by several parents and they are not willing to take on the liability although they are the ones requiring our children to wear the mask. I'd like to see our children be able to go to school with their focus on learning, not the mask on their face.

Please support HB 1323 and support Freedom of Choice.

Kristi Brunner

Sources:

https://www.researchsquare.com/article/rs-124394/v1



1839 East Capitol Ave
Suite B
Bismarck, ND 58501

To whom it may concern...

In regards to HB 1323, I am in FULL SUPPORT of this bill.

A bill to protect individuals from government overreach into their personal health decisions is of utmost importance.

By having mask mandates, at each and every level – city, county, state - we are being held hostage and governed by the health department. Last time I looked I did NOT elect anyone from the Health Department, nor did I grant anyone there the right to legislate my health care decisions.

In addition, John Hopkins University recently released a study indicating after heart disease and cancer, medical mistakes are the third cause of death in the US. You are expecting me to take health advice from a broken system? I will choose to educate myself and make decisions on my own and not follow any narrative spewed by government agencies.

I urge you to all remember, once again, a document called the CONSTITUTION of the United States, which you have sworn to follow and uphold. Personal FREEDOMS should supersede Health Department rule.

I will be interested in how each and every one of you votes...who voted for freedom, personal responsibility and choice and who decided to pass the buck.

Helping Create Health and Wellness,

Dr. Allen Rudolph

Chairman Klemin and Members of the House Political Subdivisions Committee,

My name is Melyssa Howry and I live in District 4. I am submitting this testimony in strong support of HB1323.

The government overreach that we have seen over the past year has been unprecedented, at least in our lifetimes. I never thought I would see a time like this in the United States. Masks have become "the norm" for most people, and yet the effectiveness of the practice has never been based firmly in science. Here is a link to a review of many studies on masks, both with favorable and unfavorable results. I ask you to please take even just a quick look at the summaries of these studies:

https://swprs.org/face-masks-evidence/?fbclid=lwAR2svXZvyZEE83tqSXeDnyLr56TlyJwK5W_6 WObRtFtMPqbS-jiUPO48MO4

I could attach study after study to back up my strong conviction that masks are unnecessary, ineffective, and potentially dangerous, especially for children (please see just one VERY important data study on the negative effects masks are having on children: <a href="https://www.researchgate.net/publication/348254027_Corona_children_studies_Co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_mask_in_children_studies_co-Ki_First_results_of_a_Germany-wide_registry_on_mouth_and_nose_covering_co-Ki_First_results_of_a_Germany-wide_registry

However, I am sure that for every study I could produce, the opposition could produce one that seeks to prove otherwise. So we find ourselves at a standstill, in the midst of a very controversial debate, where both sides can produce evidence that seems to support their position on masks.

This is exactly why I support this bill. A practice that has not been proven to be scientifically effective should never be forced upon citizens by the government, or by anyone in authority, whether that be a business owner, hospital, school district or any other employer. There just isn't enough conclusive evidence one way or another to warrant such drastic measures. This should be a choice. It never should have been forced upon anyone against their will, especially in North Dakota, where personal liberty is held in high regard.

I recognize two problems here. One is that those who believe masks work believe that everyone must use them in order for them to be effective. By default, there is oppression, bullying, and even hatred directed towards people who do not agree with that belief. The second problem is that by putting mandates in place at the state or local level, it then becomes the job of local law enforcement to uphold such mandates and to determine what method of enforcement is warranted. This puts unnecessary pressure on those who are protecting and serving, because they should not be expected to penalize law-abiding citizens who choose not to wear masks. It is inappropriate to place that responsibility on their shoulders. I also see a lot of citizens who have taken it upon themselves to be "mask police" due to these mandates. This does nothing except to create more division, hatred, and frustration during a time when we as human beings have already been faced with enough hardship.

To conclude, this is a time when we should be on the same team, not fighting against one another. Mask mandates only increase the divide, as they cause people to make judgments about each other simply by looking at them. I believe this is wrong, and should never have happened in the first place. We can stop this here in North Dakota, and send a message to the rest of the nation that we will not allow our citizens to be bullied and mistreated simply because they have a different opinion than the dominant narrative.

For these reasons, I fully support HB1323 and ask that you move it forward with a "DO PASS" recommendation. Thank you for your time.

HB 1323: Limitations on Mask Wearing Requirements

NDCA Committee - Feb. 4, 2021

Mr. Chairman and Members of the Committee,

HB 1323 addresses a situation that should be made by the individual and not by a state or local elected official, the state, or a political subdivision of the state.

Unfortunately, the evidence for the efficacy of public mask wearing has actually been quite weak which is why those who advocate for masks and lockdowns resort to emotional manipulation to get the public to comply with mask mandates. Blaming fellow citizens for the completely inevitable spread of a highly contagious respiratory virus has led to unintended negative social consequences including the pervasive bullying and lecturing of fellow citizens as well as the argument that we should normalize mask-wearing from this point forward to protect the population from all viruses, not just COVID-19. We are being asked to choose compassion for others over individual liberty, but that is a false dichotomy, and serves only to cause animosity and division amount fellow Americans.

We need to get back to normalcy for the sake of our sanity. This has caused such a divide in our public which is truly quite sad.

Thank you.

Rebuttal Response to Testimony From Fargo City Attorney Erick Johnson

February 4, 2021 House Political Subdivision Committee HB1323 Representative Jason Dockter Chairman

Respected Representative of the House Political Subdivision

I write to you today in response to the testimony submitted by Erik Johnson, City Attorney for the City of Fargo. As I have already submitted a lengthy testimony in regards to this specific bill and provided a timeline including article and sources I will try and make this as brief as possible.

- 1. Mask Recommendations vs. Mask Mandates
- April 7th, Fargo's Mayor Tim Mahoney issued the early directive on masks strongly advising that businesses and individuals wear protective face coverings.

On April 3, 2020, the White House Coronavirus Task Force and CDC announced a new behavioral recommendation to help slow the spread of coronavirus disease 2019 (COVID-19) by encouraging the use of a cloth face covering when out in public (1). Widespread use of cloth face coverings has not been studied among the U.S. population, and therefore, little is known about encouraging the public to adopt this behavior. Immediately following the recommendation, an Internet survey sampled 503 adults during April 7–9 to assess their use of cloth face coverings and the behavioral and sociodemographic factors that might influence adherence to this recommendation. The same survey was administered 1 month later, during May 11-13, to another sample of 502 adults to assess changes in the prevalence estimates of use of cloth face coverings from April to May. Within days of the release of the first national recommendation for use of cloth face coverings, a majority of persons who reported leaving their home in the previous week reported using a cloth face covering (61.9%). Prevalence of use increased to 76.4% 1 month later, primarily associated with increases in use among non-Hispanic white persons (54.3% to 75.1%), persons aged \geq 65 years (36.6% to 79.2%), and persons residing in the Midwest (43.7% to 73.8%). 1

From the CDC's website there was blatant admission to the effects of mask usage or even the willingness for the population of the United States to comply. Even though they did do a sample survey following up the behavioral modification of individuals across the United States the number of participants was so woefully low that the data pertained should not have been considered relevant.

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¹ https://www.cdc.gov/mmwr/volumes/69/wr/mm6928e3.htm

- On August 10th the City Commissioners approved two motions. Again these motions contained the words strongly encouraged. It was around this time the mask debate was catching like wildfire on social media platforms and public mask shaming went into full effect, whether in Fargo, or Bismarck, or middle of nowhere North Dakota. People who could not wear masks for a plethora of reasons were called liars, asked to leave stores, churches, etc. for not caring for their fellow man.

What Mr. Johnson failed to acknowledge in this part of his testimony was the fact that Fargo attempted to illegally pass a mask mandate on October 5th of 2020. The Mask Mandate that Mr. Johnson drafted violated the very NDCC that they were attempting to use to get it passed. NDCC 40-05.1-05.²

40-05.1-05. Ratification by majority vote - Supersession of existing charter and state laws in conflict therewith - Filing of copies of new charter. If a majority of the qualified voters voting on the charter at the election vote in favor of the home rule charter, the charter is ratified and is the organic law of the city, and extends to all its local and city matters. The charter and the ordinances made pursuant to the charter in such matters supersede within the territorial limits and other jurisdiction of the city any law of the state in conflict with the charter and ordinances and must be liberally construed for such purposes. One copy of the charter ratified and approved must be filed with the secretary of state and one with the auditor of the city to remain as a part of its permanent records. Thereupon the courts shall take judicial notice of the new charter

During the meeting itself the legality of the proposed mandate was brought into question and was turned down.

Two weeks later Mayor Mahoney, a member of the Red River COVID Taskforce took it upon himself to impose the mask mandate without a council vote, triggering the beginning of mask mandates going into effect without a full vote from the city and county commissions that they were issued in.

As much as Mr. Johnson would like to say that city officials observed mask compliance, he also failed to mention the blow back that has come from the city commissioners arguing that Mayor Mahoney took these actions directly upon himself without any consultation with them. Commissioner Tony Gehring has been very vocal about this matter over the past months.

² Appendix A

He also failed to mention that he, like many other city attorneys have pushed the narrative that their mandates as well as the Governor's own mandates were law. The Bismarck City Attorney, Janelle Combs had many public debates regarding this very topic on Facebook. Saying that the Legislative Assembly had given the Governor the power to make law. ³

There is a defined difference between force and effect of the law and actually being the law and this has failed to be addressed.

12:57

COVID Positivity

Alexander, Stacey M.

then 15% needs to be investigated.

To -Grp-DOH Microbiology

Effective Immediately for all COVID testing.

Any run that comes off with a positivity rate of greater

Look at the run to see if there are positive samples

<

In his next point he discusses how dramatic the surge had been in COVID in November and December and that the masks did not fully stop the spread.

Again this information is only a half truth as information has been coming to light in regards to.

- November 15, 2020: Lab worker wrote up an official account and is willing to give an account if a case is opened. Name withheld for now.

Since positive tests need to decline to claim success of new lockdown orders this becomes ideal timing. Coincidently, the number of tests run drops SIGNIFICANTLY, and then, when positive percentage of tests need to drop, this email gets sent out effective "immediately" on November 28th

WHY WASN'T THIS FIXED MONTHS

AGO!!! THIS IS WHAT THE LAB TECH

att LTE

clustered in one area of the PCR plate. This would trigger retesting those samples. · Are most of the positive samples all around the same CT/CN value (within 2-3 CTs or CNs) of each other. If so this would trigger retesting. · Is there a cluster of positive samples with higher Ct/CN values near one that is low. If so this would trigger retesting of those samples. Any run that comes off with a positivity rate of 25% or greater need to have a Lead in that area approve it before it goes out. If you are working an evening or night shift and one like this comes off please leave it for the morning to be looked at. On the weekends please wait until morning and then contact a lead. When in doubt or if you have questions about a run please reach out to a lead. ← ∨ Reply to All 8

³ Appendix B

WAS REFERRING TO WEEKS AGO IN REGARDS TO IMPOSSIBLE PERCENTAGES OF POSITIVE TESTS. NO ONE TO TAKE RESPONSIBILITY. NOW WHEN THEY NEED NUMBERS TO GO DOWN, for their own interests, THEY ADDRESS A PROBLEM THAT'S BEEN GOING ON FOR MONTHS.

If this doesn't make 100% sense--know this... decreasing the NUMBER of tests run would obviously decrease the number of positive tests. FIXING a machine throwing out 30% or more false positives will very significantly decrease the PERCENT of positives. Massive number manipulation. I repeat, this was ignored until the mask mandate so they could use it to decrease the percentage of positive people.

- This has additionally caused the North Dakota State Lab to now go back and drastically change numbers that were released, and they are now trying to reach out to all people who were falsely told that they had contracted COVID-19. I would recommend that members of house and senate subpoena these records immediately as they were used to support these actions.
- As to mayors of 70 percent of the city supporting these mask mandates I will point you to the email I sent your legislative leaders on October 25th regarding what was coming and then to all of you so you could read the interaction yourselves.

My response on October 26th, 2020 which went to all since he decided to include them in conversation.

```
"Anderson, Jr., Howard C." <hcanderson@nd.gov>
"Wardner, Rich P." <rwardner@nd.gov>,
"Klein, Jerry J." <jklein@nd.gov>,
"Hogue, David J." <dhogue@nd.gov>,
"Heckaman, Joan M." <jheckaman@nd.gov>,
"Grabinger, John" <jgrabinger@nd.gov>,
"Pollert, Chet A." <cpollert@nd.gov>,
"Louser, Scott C." <sclouser@nd.gov>,
"Klemin, Lawrence R." <lklemin@nd.gov>,
"Boschee, Joshua A." <jboschee@nd.gov>,
```

```
"Beehler, Jace" <jabeehler@nd.gov>,
"Sanford, Brent" <bsanford@nd.gov>,
```

....I shouldn't be concerned that our elderly are locked away, and the innocence of our children is being stripped from them every day and replaced with fear.

All while watching everything come together within a few days of when I expect them to. There is a predictable pattern in play based on metrics, and I'm averaging within 5 days of when I figure it will be enacted. God save us if we hit 15% positive per capita.

If Bismarck, Dickinson, and Williston pass a mask ordinance it will be issued statewide through executive order as 3 of the 6 most populated cities already have one in place. 2020-13 is proof of that as it cites 33 of 53 counties. The whole process is being controlled by manipulating the numbers to incite fear....

- The biggest point Mr. Johnson has said that there should be "Local Control", but the mayors and their city attorneys have very publicly proven that by local control they mean one or two individuals controlling thousands of people. All that has been accomplished in the last year is a corruption of the political hierarchy and the actions of a few individuals creating very real doubt as to the intentions of every elected official in the state.
- 2. HB 1323 too broadly-worded. Again referring to Mrs. Combs public comment she was just the wordsmith that drafted the mandate.
 - A broad interpretation of this is necessary as the city attorneys have proven that clever wording will be needed in order for this to happen again. This bill is needed to pass.

Summary

I have watched repeatedly while in public the disregard that individuals have while wearing a mask. They do not social distance, they are quick to judge anyone not wearing a mask, they accuse others of not caring while literally and continuously coming into physical contact with others.

As someone who is considered an essential worker per the cdc and the daily interactions I have with my job, all that the mask mandates did was to create a security blanket that gave the individuals wearing them a false sense of security on one side and fighting on the other.

The people that were truly forgotten through all of this were individuals who have legitimate health issues whether, physically, mentally, or socially in regards to their inability to wear masks. The fallout has caused from the fear has children as young as eight committing suicide within our state.

Conclusion

If any individual for the feeling of their own health and wellbeing chooses to wear a mask while in public or at work that is fine. Governor Burgum has talked about "personal responsibility" so much at this point I hope to never hear those words again.

But the campaign of misleading information that has been publicly pushed in North Dakota needs to stop and this bill needs to pass.

Legislators make Laws not the Governor, Judges and Attorneys interpret them. There are three branches of Government for a reason.

Final thoughts

"If you do not like the mitigation measures get in line and get your vaccine"

- Doug Burgum

These words should have never been said. But at the same press conference Molly Howell told us.

"Social distancing and mask wearing will still be necessary."

Appendix A - Fargo Mask Mandate(s) 10/05/2020

Page 157

MASK MANDATE ORD - "NO PENALTY CLAUSE"

OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO.

AN ORDINANCE ENACTING ARTICLE 10-13 OF CHAPTER 10 OF THE FARGO MUNICIPAL CODE RELATING TO FACE COVERINGS AND SOCIAL DISTANCING TO REDUCE RISK OF TRANSMISSION OF COVID-19 VIRUS

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WHEREAS, the electorate of the city of Fargo has adopted a home rule charter in accordance with Chapter 40-05.1 of the North Dakota Century Code; and

WHEREAS, Section 40-05.1-06 of the North Dakota Century Code provides that the city shall have the right to implement home rule powers by ordinance; and

WHEREAS, Section 40-05.1-05 of the North Dakota Century Code provides that said home rule charter and any ordinances made pursuant thereto shall supersede state laws in conflict therewith and shall be liberally construed for such purpose; and

WHEREAS, the board of city commissioners deems it necessary and appropriate to implement such authority by the adoption of this ordinance;

NOW, THEREFORE,

Be It Ordained by the board of city commissioners of the city of Fargo:

Section 1. Enactment.

Sections 10-1301 and 10-1302 of Article 10-13 of Chapter 10 of the Fargo Municipal Code is hereby enacted as follows:

ARTICLE 10-13 COVID-19 --FACE-COVERING REQUIRED

10-1301. Definitions. - For purposes of this article, the following definitions shall apply:

a. Face covering shall mean a paper or cloth face mask that covers the nose and mouth completely, and includes a paper or disposable face mask, a cloth face mask, a scarf, a bandanna, a neck gaiter, or a religious face covering. Masks that incorporate a valve designed to facilitate easy exhaling, mesh masks or masks with openings, holes, visible gaps in the

OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO.

23

design or material, or vents are not sufficient face coverings because they allow exhaled droplets to be released into the air.

- "Business" and "businesses" are broadly defined to include entities that employ or engage workers, including private-sector entities, public-sector entities, non-profit entities, and state, county, and local governments.
- "Social distancing" means individuals keeping at least six (6) feet of distance from other individuals who are not members of their household.
- d. "Household" means a group of individuals who share the same living unit.
- 10-1302. COVID-19-Face Covering Required. -- For purposes of reducing the risk of the communication and transmission of the COVID-19 virus, every person shall, within the city of Fargo, wear a face covering over the mouth and nose in all indoor environments where they are exposed to non-household members and where social distancing of six (6) feet or more cannot be assured and in all outdoor settings where there is exposure to non-household members, unless there exists ample space of six (6) feet or more to practice social distancing. The following shall be exempt from wearing a face covering:
 - Persons younger than 10 years of age, although parents and guardians are encouraged to have such younger children wear face coverings when and where appropriate;
 - Persons with a medical condition or disability that prevents wearing a face covering;
 - Persons performing job duties where a six (6) feet distance is not achievable, but a mask is inhibitory to the ability to safely and effectively perform the job duty;
 - d. Persons participating in athletic activities where a six (6) feet distance is not achievable, but a mask is inhibitory to the activity;
 - e. Persons actively consuming food or drink;
 - f. Persons driving a motor vehicle alone or with passengers from the driver's household;
 - Persons receiving services that require access to the face for security, surveillance, or other purposes may temporarily remove a face covering while receiving those services;

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OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO. _____

h. Persons voting, assisting voters, serving as poll watchers, or actively performing election administration duties; however, face coverings are strongly encouraged; i. Persons engaged in religious worship activities; however, face coverings are 2 strongly encouraged; 3 i. Persons giving a speech or performance for broadcast or to an audience; however, 4 those persons shall safely distance from nearby individuals. 5 This ordinance shall not prohibit law enforcement officers or local officials from enforcing trespassing laws or other applicable laws in removing violators at the request of businesses or other property owners. 6 7 Section 2. Effective Date. 8 This ordinance shall be in full force and effect from and after its passage and approval. 9 Section 3. Term, Termination and Sunset Date. 10 11 This ordinance, including Sections 10-1301 and 10-1302, shall expire on the 31st day of December, 2021, shall thereafter shall be of no further force or effect and shall be deemed 12 thereafter to be automatically repealed unless it is extended by enactment of an ordinance amending this ordinance or extending the term hereof. 13 14 15 Timothy J. Mahoney, Mayor 16 (SEAL) 17 Attest: 18 19 First Reading: Second Reading: 20 Final Passage: Steven Sprague, City Auditor 21

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OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO.

AN ORDINANCE ENACTING ARTICLE 10-13 OF CHAPTER 10 OF THE FARGO MUNICIPAL CODE RELATING TO FACE COVERINGS AND SOCIAL DISTANCING TO REDUCE RISK OF TRANSMISSION OF COVID-19 VIRUS WHEREAS, the electorate of the city of Fargo has adopted a home rule charter in accordance with Chapter 40-05.1 of the North Dakota Century Code; and

WHEREAS, Section 40-05.1-06 of the North Dakota Century Code provides that the city shall have the right to implement home rule powers by ordinance; and

WHEREAS, Section 40-05.1-05 of the North Dakota Century Code provides that said home rule charter and any ordinances made pursuant thereto shall supersede state laws in conflict therewith and shall be liberally construed for such purpose; and

WHEREAS, the board of city commissioners deems it necessary and appropriate to implement such authority by the adoption of this ordinance;

NOW, THEREFORE,

Be It Ordained by the board of city commissioners of the city of Fargo:

Section 1. Enactment.

Sections 10-1301, 10-1302 and 10-1303 of Article 10-13 of Chapter 10 of the Fargo Municipal Code are hereby enacted as follows:

ARTICLE 10-13 COVID-19 --FACE-COVERING REQUIRED

10-1301. Definitions. – For purposes of this article, the following definitions shall apply:

a. Face covering shall mean a paper or cloth face mask that covers the nose and mouth completely, and includes a paper or disposable face mask, a cloth face mask, a scarf, a bandanna, a neck gaiter, or a religious face covering. Masks that incorporate a valve designed to facilitate easy exhaling, mesh masks or masks with openings, holes, visible gaps in the

OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO. _____

23

- design or material, or vents are not sufficient face coverings because they allow exhaled droplets to be released into the air.
- "Business" and "businesses" are broadly defined to include entities that employ or engage workers, including private-sector entities, public-sector entities, non-profit entities, and state, county, and local governments.
- c. "Social distancing" means individuals keeping at least six (6) feet of distance from other individuals who are not members of their household.
- d. "Household" means a group of individuals who share the same living unit.
- 10-1302. COVID-19-Face Covering Required. For purposes of reducing the risk of the communication and transmission of the COVID-19 virus, every person shall, within the city of Fargo, wear a face covering over the mouth and nose in all indoor environments where they are exposed to non-household members and where social distancing of six (6) feet or more cannot be assured and in all outdoor settings where there is exposure to non-household members, unless there exists ample space of six (6) feet or more to practice social distancing. The following shall be exempt from wearing a face covering:
 - a. Persons younger than 10 years of age, although parents and guardians are encouraged to have such younger children wear face coverings when and where appropriate;
 - Persons with a medical condition or disability that prevents wearing a face covering;
 - c. Persons performing job duties where a six (6) feet distance is not achievable, but a mask is inhibitory to the ability to safely and effectively perform the job duty;
 - d. Persons participating in athletic activities where a six (6) feet distance is not achievable, but a mask is inhibitory to the activity;
 - e. Persons actively consuming food or drink;
 - f. Persons driving a motor vehicle alone or with passengers from the driver's household;
 - g. Persons receiving services that require access to the face for security, surveillance, or other purposes may temporarily remove a face covering while receiving those services;

OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO.

- h. Persons voting, assisting voters, serving as poll watchers, or actively performing election administration duties; however, face coverings are strongly encouraged;

 i. Persons engaged in religious worship activities; however, face coverings are strongly encouraged;
 - i. Persons giving a speech or performance for broadcast or to an audience; however, those persons shall safely distance from nearby individuals.

This ordinance shall not prohibit law enforcement officers or local officials from enforcing trespassing laws or other applicable laws in removing violators at the request of businesses or other property owners.

10-1303. Penalty for violation. — A person who violates this article shall be deemed to have committed a non-criminal offense and shall pay a fee of \$100.00 as provided in Section 1-0305.C of the Fargo Municipal Code. First-time violators of this article shall receive a verbal or written warning. Violators of this article under 18 years of age shall only receive a verbal or written warning.

Section 2. Penalty.

A person who violates this ordinance shall be deemed to have committed a non-criminal offense and shall pay a fee of \$100.00 as provided in Section 1-0305.C of the Fargo Municipal Code. First-time violators of this ordinance shall receive a verbal or written warning. Violators of this ordinance under 18 years of age shall only receive a verbal or written warning.

Section 3. Effective Date.

This ordinance shall be in full force and effect from and after its passage, approval and publication.

Section 4. Term, Termination and Sunset Date.

This ordinance, including Sections 10-1301 and 10-1302, shall expire on the 31st day of December, 2021, shall thereafter shall be of no further force or effect and shall be deemed thereafter to be automatically repealed unless it is extended by enactment of an ordinance amending this ordinance or extending the term hereof; provided, however, that such automatic termination and repeal shall not be deemed to have been repealed for purposes of any pending civil or criminal judicial proceedings initiated prior to said termination date.

OFFICE OF THE CITY ATTORNEY FARGO, NORTH DAKOTA

ORDINANCE NO. _____

(ODAI)	Timothy J. Mahoney, Mayor
(SEAL)	
Attest:	
	Pinet Desdieses
	Second Reading:
Steven Sprague, City Auditor	First Reading: Second Reading: Final Passage: Publication:
	4

Appendix B - Public Comment

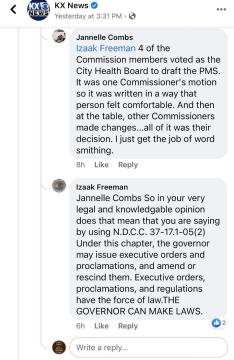


NEW: In a press release, the board said the decision was made after the governor's and interim state health officer's new orders, which were signed Nov. 13, in order to "eliminate confusion" among businesses and the public.



KXNET.COM
Bismarck City Commission rescinds 'Pandemic Mitigation Strategy'



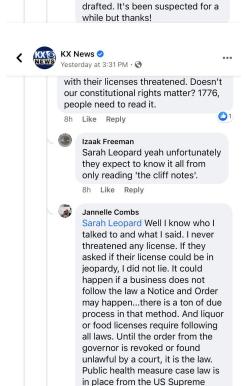


Sarah Leopard

Izaak Freeman hmm I think I have heard

of a few business receive phone calls





Court for about 100 years and liquor licenses require due process but they are not absolutle, neither

are food licenses.

8h Like Reply

Sarah Leopard

KX News Vesterday at 3:31 PM · C

Izaak Freeman

Jannelle Combs so everything that has been done to strip the Constitutional Rights from North Dakota citizens over the last eight months through Executive Orders and State Health Officer Orders has been perfectly legal and the is fault of our legislators for passing?

6h Like Reply

Sarah Leopard

Jannelle Combs which century code allowed this? What Bill was it?

6h Like Reply

Unapologetic Christian

Jannelle Combs who are you?

6h Like Reply

Unapologetic Christian

Jannelle Combs oooohhhhh you must be an "attorney" so you must know about Chapter 12 in our NDCC? Glad we have an attorney here. Could you please reference this "house bill" that gave the governor and his "doh" whackos the right to strip NDans of their civil liberties, right to work, infringement of their USC rights, Bill of Rights, and all the articles



Jannelle Combs sounds like you

are claiming the governor has the

power to create law... doest this

TENOR

7h Like Reply



Jannelle Combs

Sarah Leopard Yes he does. The legislature in Century Code gave him that authority. We had executive orders during DAPL too. So yes they did a bill, made a law which allows governors to do this and health officers too.

6h Like Reply



KX News ♥ Yesterday at 3:31 PM · ❤

> therein? Last time I brushed up on my Constitutional Rights under the USC; my rights don't stop where the DoH and governor's EO's start.

6h Like Reply



Izaak Freeman

Unapologetic Christian She's the Bismarck City Attorney

Checks and balances much? Oy.

6h Like Reply



Unapologetic Christian

Izaak Freeman I decided to research her and I figured out exactly who she is. Thanks google. I can't believe we have a state's attorney who is blind in regards to the U.S.C. or even the STATE Constitution. They must not teach either of those in "law school" anymore. What a shame. I hate to see people being arrested under "the color of law" because they indeed weren't equipped with the proper edumacation. Looks like I will need to clear my calendar so I can watch some of these crazy upcoming violation hearings; to an unconstitutional mask mandate and depriving businesses of their right to work without just



compensation. I hear good ole Burg-UM has a lot of cash-flow, maybe he could give his personal \$ to justify locking down and setting curfews on businesses. My federal dollars aren't dedicated to bailing out little china-tyrannical dictators.

6h Like Reply



Jannelle Combs

Unapologetic Christian Sarah Leopard NDCC Chs 37-17.1 and 23-01. I have no knowledge of the session law numbers...you could find that out in an annotated copy of Century Code.

6h Like Reply



Unapologetic Christian
Jannelle Combs I asked a
rhetorical question. You are paid to
do this, so please cite your findings
or don't comment on a public
forum. Remember- YOU are
employed by WE THE PEOPLE. You
didn't answer a single question of
mine, and I will be excited for these
"plea deals" *ahem* I mean
"arrests" to happen. Make sure
you're on the right side of history.
Like I previously stated- The

United States Constitution is SUPREME LAW OF THE LAND, any "bill" "CC" or "State Constitution" that makes laws, bylaws, suggestions, mandates, or whatever other pretty label you want to slap on it; IS REPUGNANT! Maybe Bismarck will have an open spot for state's attorney soon? Looks like yall could use a Constitutionalist to make sure a governor, pd, sheriff, or doh member isn't arrested on millions of counts. Especially since it's on a PUBLIC News Network's channel. Imagine the reach FB has? Thanks for being a typical lawyer. You are the reason why I've sat back for 10 years with a degree and did nothing with it except CLE.

6h Like Reply



Jannelle Combs If that is this particular phrasing used in Executive Order 2020-14 since you are the word smith? ...hereby suspends the operation of NDCC 23-07.6 with the exception of NDCC 23-07.6-02(3) relating to communicable disease confinement procedure, allowing the State Health Officer to issue

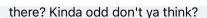
measures deemed necessary to prevent the spread of COVID-19 pursuant to NDCC 23-01-05(12) and consistent with due process. If what you are saying is the law that would mean that since the Governor gave the State Health Officer the power to issue orders that means the Governor CAN Rescind the newest order. State Health Officer Order 2020-08. Which is amazing by itself because it and the penalty for violating it is NDCC 23-07-21(1) which is in fact a class C felony according to century code. No wonder every one is in such a big hurry to rescind their local order.

6h Like Reply

Unapologetic Christian

Jannelle Combs Side note- I have all that printed. I see where he is trying to go with these EO's... suggestion: EO: 2020-06.5 pg. 3 under bullet 1: could you explain to the public what "ND Co Institution" means? When I looked this up (as this wasn't a misspelling, misspellings are important dontcha know)

Jamestown mental ward popped up. Now why would that be in



6h Like Reply

Izaak Freeman

Unapologetic Christian So since she says that the legislators gave the governor his power that means they can take it away huh? I wonder if NDCC 37-17.1-05(3) should take care of it neatly.

6h Like Reply



Jannelle Combs

Tough to follow your comments but I will try. 1. I did not write the Governors order. 2. I am not a States Attorney...so my office and prosecutors will not be enforcing these other orders. 3. I do not check my first amendment rights when I take a job, nor does that include any requirement to cite whatever you are claiming. I gave the statutory citations. 4. No arrests. It is an infraction and I have no idea about plea deals. That is the States Attorney's discretion. You can ask her.

6h Like Reply



Izaak Freeman

It's okay. You covered it beautifully last night. Have a great morning!

4h Like Reply

I would like to submit my testimony in strong support of HB1323. The fear mongering and bullying has gone on for far too long. State after state, country after country, the evidence for masks does NOT stand up. They are not effective against this virus. And the damage they are doing to all of us is much worse. I've witnessed a major decline in society. People don't talk to each other anymore, people don't smile (and how could you tell, even if they were?), people aren't seeing each other. These things have a massive impact on a person's mental health, and thus their overall health. Decreased mental health equals a suppressed immune system. We've known this for decades. Staying inside and not getting enough Vitamin D, not exercising, not being exposed to everyday germs and bacteria, washing and sanitizing hands and surfaces too much...all of these things are well researched and known to suppress the immune system. Rather than spreading fear, how about we help people take control of their health in a positive way!

There is a large number of us that see this for what it is – an extreme overreach of power to exert control over the people. Unelected health officials should absolutely NOT have power to be making decisions for any of us. My tax dollars should absolutely NOT be used to fund propaganda that I strongly disagree with, and isn't statistically supported. 90+ year olds in MN have a 92.46% recovery rate, and overall average of 99.61% across all ages (Source: MN Dept of Health, 01/13/2021).

Furthermore, if the COVID-19 vaccine is really as magical and efficacious as we're supposed to believe, there shouldn't be any need to continue the masks and other mitigation measures now that our at-risk population is getting vaccinated. There is no need for a "new normal". We need to get back to actual, real normal.

This whole pandemic has destroyed the credibility of our government, media outlets, and health officials (if indeed, they had any to begin with). Approving HB1323 would be a small step towards regaining our trust.

Thank you,

Lisa Hovda

February 4, 2021

House Political Subdivisions Committee

RE: HB 1323 TESTIMONY

Dear Members of the House Political Subdivisions Committee

I am writing to you in support of HB 1323. I agree that there should be limitations on the requirements to wear a mask.

Mask wearing has become such a hot political issue and the science on the efficacy of mask wearing is not settled. There is no proof that mask wearing reduces the risk of viral transmission – a tiny microscopic virus being stopped by a mask that has openings many times larger than the virus is not logical. There are studies that show the exact opposite to be true.

And there are other issues that are well known, such as what type of mask? Is someone wearing a mask properly? Is there a greater risk because someone is touching there face more frequently? Are there health impacts from mask wearing that are a greater risk to the individual wearing the mask than the supposed benefit from mask wearing? The science is not settled.

If a business wants to make mask wearing mandatory, that is the business's choice and I support that choice. But local and state political leaders should not force citizens to mandatorily wear a mask. Too many state and local leaders, have chosen to mandate mask wearing out of political expediency and pressure. They have been abusing their powers and using this pandemic as an excuse to restrict our freedoms.

I urge you to support freedom of individual choice in North Dakota. This is one of the many reasons why we live in this great state, because of the freedoms we enjoy.

I support a DO PASS recommendation on HB 1323.

Jeffrey L. Ebsch

411 4th Street SE, PO Box 143

Stanley, ND 58784

(701) 721-2708

ebschj@yahoo.com

House Political Subdivision Committee

Chairman and committee members.

HB1323

I am writing for DO PASS on HB1323. If you listen to Dr Fauci, he can't seem to make up his mind on whether masks work or not. Now 10 months later he is telling us to double mask? This is nonsense and the CDC can't keep changing their mind.

I am tired of the CDC, Governor Burgum, state and local health departments using FEAR to instill in us that masks work. I didn't authorize anyone to make health decisions for my body. It's my body and I can choose whether I want to wear a mask or not.

When my dad was in the hospital, upon entering the hospital, they took my temperature, I applied hand sanitizer and wore my mask. I washed my hands when I got to the hospital room. I washed my hands when I left the hospital room. I used hand sanitizer before leaving the hospital. I didn't touch the doors upon leaving. I still got covid and the only place I was in those 5 days was either working from home or the hospital. I got covid AT THE HOSPITAL WHERE EVERYONE WAS WEARING MASKS.

My dad is from Logan county where cases of covid was low and very few followed the mask mandate. So why should they wear a mask?

I decided I would fly to my sisters for Thanksgiving even though ND and AZ had mask mandates. I heard Thanksgiving would be a super spreader event. When I got home, I waited for that, and nope, not a super spreader event. I then was going to spend time with my family over Christmas, but couldn't because I got covid AT Sanford hospital visiting my dad when EVERYONE WAS WEARING MASKS. Then New Year's was going to be a super spreader event. That never happened. Now I heard that the Super Bowl is going to be a Super spreader event. And you know what? Very few will be wearing masks and will have still have low cases of covid? Why because herd immunity is working.

DO PASS HB1323

Thank you.
Shari Neigum
Sneigum1177@gmail.com
701-226-1883

February 4, 20201

Re: HB1323

This is my written testimony for HB1323. We are now going on nearly a year of this idea that has been pushed on the citizens of North Dakota, to wear a mask. It started out as a suggestion and has now moved into a mandatory idea. I have watched Mayors/City Councils, School Boards/Superintendents, and many businesses, etc., pushing these mandates on us, the citizens of North Dakota. This all started from the top down to the local to put the fear in people to think this virus is more deadly than cancer, heart disease, diabetes, and other diseases.

Enough is enough, no more masks and mandates and taking away our Freedom to choose whether or not we want to put a mask on! I want to breathe clean, fresh air with no restrictions! There are a lot of people coming forward who are now having problems with their lungs and face acne just to mention a few things. Also, there were people who were pro mask wearers who still got Covid-19.

YES to HB1323!!! NO MORE MANDATING MASKS!

Thank You, Rosemary Ames Citizen of ND February 4th, 2021

North Dakota Legislators

HB: 1323

Dear Legislators,

I am writing to you in support of HB1323. We should not have a need to Mandate mask wearing, therefore I am against doing so. We have freedoms in our country and our state that should allow people to make their own decisions. I do not agree with mask shaming. If I am healthy, I should have a choice to wear one or not wear one. I am taking a risk either way. There is no definitive proof that the masks work. They have become a key impediment to returning to a more normal.

I ask that you pass HB1323. Vote YES!

Let ND people decide to mask or not to mask. It is a decision each individual should freely decide.

Thank you for your time and consideration on this matter.

Sincerely,

face 5 Os d

Karen S Ebsch 411 4th St. SE

Stanley, ND 58784

House Political Subdivision Committee

Chairman & committee members

I am writing in support of HB 1323 and thereby, asking for a Do Pass on this bill.

My name is Virginia Sanderson. I am a lifelong resident of ND and love this state for all the freedoms we are afforded.

Our federal, state and local governments have no right to make health care decision for anyone. This "pandemic" has been a farse from the very beginning and that is becoming more and more clear by the day.

My health care is MY decision and the use of fear tactics has gone on far too long. I watch my friends and family terrified of living their lives. It's unbearable.

We, the citizens of this state, and the US, need to be able to trust those we elect to look out for our best interests. NOT the interests of the government, industry, or business. We The People come first.

I have submitted several links to more evidence of the falsehoods involved in this "outbreak" and the wearing of masks, which is actually very detrimental to us.

Please do your duty in protecting your constituents from government overreach.

Thank you.

Virginia Sanderson

Morbidity and Mortality Weekly Report

#5474

Community and Close Contact Exposures Associated with COVID-19 Among Symptomatic Adults ≥18 Years in 11 Outpatient Health Care Facilities — United States, July 2020

Kiva A. Fisher, PhD¹; Mark W. Tenforde, MD, PhD¹,²; Leora R. Feldstein, PhD¹; Christopher J. Lindsell, PhD³,⁴; Nathan I. Shapiro, MD³,⁵; D. Clark Files, MD³,⁶; Kevin W. Gibbs, MD³,⁶; Heidi L. Erickson, MD³,²; Matthew E. Prekker, MD³,²; Jay S. Steingrub, MD³,⁶; Matthew C. Exline, MD³,¹⁰; Daniel J. Henning, MD³,¹⁰; Jennifer G. Wilson, MD³,¹¹; Samuel M. Brown, MD³,¹²; Ithan D. Peltan, MD³,¹²; Todd W. Rice, MD³,⁴; David N. Hager, MD, PhD³,¹³; Adit A. Ginde, MD³,¹⁴; H. Keipp Talbot, MD³,⁴; Jonathan D. Casey, MD³,⁴; Carlos G. Grijalva, MD³,⁴; Brendan Flannery, PhD¹; Manish M. Patel, MD¹; Wesley H. Self, MD³,⁴; IVY Network Investigators; CDC COVID-19 Response Team

Community and close contact exposures continue to drive the coronavirus disease 2019 (COVID-19) pandemic. CDC and other public health authorities recommend community mitigation strategies to reduce transmission of SARS-CoV-2, the virus that causes COVID-19 (1,2). Characterization of community exposures can be difficult to assess when widespread transmission is occurring, especially from asymptomatic persons within inherently interconnected communities. Potential exposures, such as close contact with a person with confirmed COVID-19, have primarily been assessed among COVID-19 cases, without a non-COVID-19 comparison group (3,4). To assess community and close contact exposures associated with COVID-19, exposures reported by case-patients (154) were compared with exposures reported by control-participants (160). Case-patients were symptomatic adults (persons aged ≥18 years) with SARS-CoV-2 infection confirmed by reverse transcription-polymerase chain reaction (RT-PCR) testing. Controlparticipants were symptomatic outpatient adults from the same health care facilities who had negative SARS-CoV-2 test results. Close contact with a person with known COVID-19 was more commonly reported among case-patients (42%) than among control-participants (14%). Case-patients were more likely to have reported dining at a restaurant (any area designated by the restaurant, including indoor, patio, and outdoor seating) in the 2 weeks preceding illness onset than were control-participants (adjusted odds ratio [aOR] = 2.4; 95% confidence interval [CI] = 1.5-3.8). Restricting the analysis to participants without known close contact with a person with confirmed COVID-19, case-patients were more likely to report dining at a restaurant (aOR = 2.8, 95% CI = 1.9-4.3) or going to a bar/coffee shop (aOR = 3.9, 95% CI = 1.5-10.1) than were control-participants. Exposures and activities where mask use and social distancing are difficult to maintain, including going to places that offer on-site eating or drinking, might be important risk factors for acquiring COVID-19. As communities reopen, efforts to reduce possible exposures at locations that offer on-site eating and drinking options should be considered to protect customers, employees, and communities.

This investigation included adults aged ≥18 years who received a first test for SARS-CoV-2 infection at an outpatient testing or health care center at one of 11 Influenza Vaccine Effectiveness in the Critically Ill (IVY) Network sites* during July 1–29, 2020 (5). A COVID-19 case was confirmed by RT-PCR testing for SARS-CoV-2 RNA from respiratory specimens. Assays varied among facilities. Each site generated lists of adults tested within the study period by laboratory result; adults with laboratory-confirmed COVID-19 were selected by random sampling as case-patients. For each case-patient, two adults with negative SARS-CoV-2 RT-PCR test results were randomly selected as control-participants and matched by age, sex, and study location. After randomization and matching, 615 potential case-patients and 1,212 control-participants were identified and contacted 14-23 days after the date they received SARS-CoV-2 testing. Screening questions were asked to identify eligible adults. Eligible adults for the study were symptomatic at the time of their first SARS-CoV-2 test.

CDC personnel administered structured interviews in English or five other languages[†] by telephone and entered data into REDCap software (6). Among 802 adults contacted and who agreed to participate (295 case-patients and 507 control-participants), 332 reported symptoms at the time of initial SARS-CoV-2 testing and were enrolled in the study. Eighteen interviews were excluded because of nonresponse to the community exposure questions. The final analytic sample (314) included 154 case-patients (positive SARS-CoV-2 test results) and 160 control-participants (negative SARS-CoV-2

^{*} Baystate Medical Center, Springfield, Massachusetts; Beth Israel Deaconess Medical Center, Boston, Massachusetts; University of Colorado School of Medicine, Aurora, Colorado; Hennepin County Medical Center, Minneapolis, Minnesota; Intermountain Healthcare, Salt Lake City, Utah; Ohio State University Wexner Medical Center, Columbus, Ohio; Wake Forest University Baptist Medical Center, Winston-Salem, North Carolina; Vanderbilt University Medical Center, Nashville, Tennessee; John Hopkins Hospital, Baltimore, Maryland; Stanford University Medical Center, Palo Alto, California; University of Washington Medical Center, Seattle, Washington). Participating states include California, Colorado, Maryland, Massachusetts, Minnesota, North Carolina, Ohio, Tennessee, Utah, and Washington.

[†]Other languages included Spanish, Arabic, Vietnamese, Portuguese, and Russian.

test results). Among nonparticipants, 470 were ineligible (i.e., were not symptomatic or had multiple tests), and 163 refused to participate. This activity was reviewed by CDC and participating sites and conducted consistent with applicable federal law and CDC policy.§

Data collected included demographic characteristics, information on underlying chronic medical conditions, \$\symptoms\$, convalescence (self-rated physical and mental health), close contact (within 6 feet for ≥15 minutes) with a person with known COVID-19, workplace exposures, mask-wearing behavior, and community activities ≤14 days before symptom onset. Participants were asked about wearing a mask and possible community exposure activities (e.g., gatherings with ≤10 or >10 persons in a home; shopping; dining at a restaurant; going to an office setting, salon, gym, bar/coffee shop, or church/religious gathering; or using public transportation) on a five-point Likert-type scale ranging from "never" to "more than once per day" or "always"; for analysis, community activity responses were dichotomized as never versus one or more times during the 14 days before illness onset. For each reported activity, participants were asked to quantify degree of adherence to recommendations such as wearing a face mask of any kind or social distancing among other persons at that location, with response options ranging from "none" to "almost all." Descriptive and statistical analyses were performed to compare case-patients with control-participants, assessing differences in demographic characteristics, community exposures, and close contact. Although an effort was made initially to match case-patients to control-participants based on a 1:2 ratio, not all potential participants were eligible or completed an interview, and therefore an unmatched analysis was performed. Unconditional logistic regression models with generalized estimating equations with exchangeable correlation structure correcting standard error estimates for site-level clustering were used to assess differences in community exposures between case-patients and control-participants, adjusting for age, sex, race/ethnicity, and presence of one or more underlying chronic medical conditions. In each model, SARS-CoV-2 test result (i.e., positive or negative) was the outcome variable, and each community exposure activity was the predictor variable. The first model included the full analytic sample (314). A second model was restricted to participants who did not report close contact to a person with COVID-19 (89 case-patients and 136 control-participants). Statistical analyses were conducted using SAS software (version 9.4; SAS Institute).

Compared with case-patients, control-participants were more likely to be non-Hispanic White (p<0.01), have a college degree or higher (p<0.01), and report at least one underlying chronic medical condition (p = 0.01) (Table). In the 14 days before illness onset, 71% of case-patients and 74% of control-participants reported always using cloth face coverings or other mask types when in public. Close contact with one or more persons with known COVID-19 was reported by 42% of case-patients compared with 14% of control-participants (p<0.01), and most (51%) close contacts were family members.

Approximately one half of all participants reported shopping and visiting others inside a home (in groups of ≤10 persons) on ≥1 day during the 14 days preceding symptom onset. No significant differences were observed in the bivariate analysis between case-patients and control-participants in shopping; gatherings with ≤10 persons in a home; going to an office setting; going to a salon; gatherings with >10 persons in a home; going to a gym; using public transportation; going to a bar/ coffee shop; or attending church/religious gathering. However, case-patients were more likely to have reported dining at a restaurant (aOR = 2.4, 95% CI = 1.5-3.8) in the 2 weeks before illness onset than were control-participants (Figure). Further, when the analysis was restricted to the 225 participants who did not report recent close contact with a person with known COVID-19, case-patients were more likely than were control-participants to have reported dining at a restaurant (aOR = 2.8, 95% CI = 1.9-4.3) or going to a bar/coffee shop (aOR = 3.9, 95% CI = 1.5-10.1). Among 107 participants who reported dining at a restaurant and 21 participants who reported going to a bar/coffee shop, case-patients were less likely to report observing almost all patrons at the restaurant adhering to recommendations such as wearing a mask or social distancing (p = 0.03 and p = 0.01, respectively).

Discussion

In this investigation, participants with and without COVID-19 reported generally similar community exposures, with the exception of going to locations with on-site eating and drinking options. Adults with confirmed COVID-19 (case-patients) were approximately twice as likely as were control-participants to have reported dining at a restaurant in the 14 days before becoming ill. In addition to dining at a restaurant, case-patients were more likely to report going to a bar/coffee shop, but only when the analysis was restricted to participants without close contact with persons with known COVID-19 before illness onset. Reports of exposures in restaurants have been linked to air circulation (7). Direction, ventilation, and intensity of airflow might affect virus transmission, even if social distancing measures and mask use are implemented according to current guidance. Masks cannot

Activity was determined to meet the requirements of public health surveillance as defined in 45 CFR 46.102(l)(2).

⁵Cardiac condition, hypertension, asthma, chronic obstructive pulmonary disease, immunodeficiency, psychiatric condition, diabetes, or obesity.

TABLE. Characteristics of symptomatic adults \geq 18 years who were outpatients in 11 academic health care facilities and who received positive and negative SARS-CoV-2 test results (N = 314)* — United States, July 1–29, 2020

	N		
Characteristic	Case-patients (n = 154)	Control participants (n = 160)	P-value
Age group, yrs			
18–29	44 (28.6)	39 (24.4)	0.18
30–44	46 (29.9)	62 (38.7)	
45–59	46 (29.9)	35 (21.9)	
≥60	18 (11.7)	24 (15.0)	
Sex			
Men	75 (48.7)	72 (45.0)	0.51
Women	79 (51.3)	88 (55.0)	
Race/Ethnicity [†]			
White, non-Hispanic	92 (59.7)	124 (77.5)	< 0.01
Hispanic/Latino	29 (18.8)	12 (7.5)	
Black, non-Hispanic	27 (17.5)	19 (11.9)	
Other, non-Hispanic	6 (3.9)	5 (3.1)	
Education (missing = 3)			
Less than high school	16 (10.5)	3 (1.9)	< 0.01
High school degree or some college	60 (39.2)	48 (30.4)	
College degree or more	77 (50.3)	107 (67.7)	
At least one underlying chronic medical condition§	75 (48.7)	98 (61.2)	0.01
Community exposure 14 days before illness onset¶			
Shopping	131 (85.6)	141 (88.1)	0.51
Home, ≤10 persons	79 (51.3)	84 (52.5)	0.83
Restaurant	63 (40.9)	44 (27.7)	0.01
Office setting	37 (24.0)	47 (29.6)	0.27
Salon	24 (15.6)	28 (17.6)	0.63
Home, >10 persons	21 (13.6)	24 (15.0)	0.73
Gym	12 (7.8)	10 (6.3)	0.60
Public transportation	8 (5.2)	10 (6.3)	0.68
Bar/Coffee shop	13 (8.5)	8 (5.0)	0.22
Church/Religious gathering	12 (7.8)	8 (5.0)	0.32
Restaurant: others following recommendations such as we			
None/A few	12 (19.0)	1 (2.3)	0.03
About half/Most	25 (39.7)	21 (47.7)	
Almost all	26 (41.3)	22 (50.0)	
Bar: others following recommendations such as wearing a	face covering or mask of any kin	d or social distancing (n = 21)	
None/A few	4 (31.8)	2 (25.0)	0.01
About half/Most	7 (53.8)	0 (0.0)	
Almost all	2 (15.4)	6 (75.0)	

See table footnotes on the next page.

be effectively worn while eating and drinking, whereas shopping and numerous other indoor activities do not preclude mask use.

Among adults with COVID-19, 42% reported close contact with a person with COVID-19, similar to what has been reported previously (4). Most close contact exposures were to family members, consistent with household transmission of SARS-CoV-2 (8). Fewer (14%) persons who received a negative SARS-CoV-2 test result reported close contact with a person with known COVID-19. To help slow the spread of SARS-CoV-2, precautions should be implemented to stay home once exposed to someone with COVID-19,** in addition to adhering to recommendations to wash hands

often, wear masks, and social distance.†† If a family member or other close contact is ill, additional prevention measures can be taken to reduce transmission, such as cleaning and disinfecting the home, reducing shared meals and items, wearing gloves, and wearing masks, for those with and without known COVID-19.§§

The findings in this report are subject to at least five limitations. First, the sample included 314 symptomatic patients who actively sought testing during July 1–29, 2020 at 11 health care facilities. Symptomatic adults with negative SARS-CoV-2 test results might have been infected with other respiratory

^{**} https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine.html.

^{††} https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/index.html.

https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html.

TABLE. (Continued) Characteristics of symptomatic adults \geq 18 years who were outpatients in 11 academic health care facilities and who received positive and negative SARS-CoV-2 test results (N = 314)* — United States, July 1–29, 2020

	N					
Characteristic	Case-patients (n = 154)	Control participants (n = 160)	P-value			
Previous close contact with a person with known COVID-19 (missing = 1)						
No	89 (57.8)	136 (85.5)	<0.01			
Yes	65 (42.2)	23 (14.5)				
Relationship to close contact with known COVID-19 (n =	88)					
Family	33 (50.8)	5 (21.7)	<0.01			
Friend	9 (13.8)	4 (17.4)				
Work colleague	11 (16.9)	6 (26.1)				
Other**	6 (9.2)	8 (34.8)				
Multiple	6 (9.2)	0 (0.0)				
Reported use of cloth face covering or mask 14 days before illness onset (missing = 2)						
Never	6 (3.9)	5 (3.1)	0.86			
Rarely	6 (3.9)	6 (3.8)				
Sometimes	11 (7.2)	7 (4.4)				
Often	22 (14.4)	23 (14.5)				
Always	108 (70.6)	118 (74.2)				

^{*} Respondents who completed the interview 14–23 days after their test date. Five participants had significant missingness for exposure questions and were removed from the analysis. Patients were randomly sampled from 11 academic health care systems that are part of the Influenza Vaccine Effectiveness in the Critically Ill Network sites (Baystate Medical Center, Springfield, Massachusetts; Beth Israel Deaconess Medical Center, Boston, Massachusetts; University of Colorado School of Medicine, Aurora, Colorado; Hennepin County Medical Center, Minneapolis, Minnesota; Intermountain Healthcare, Salt Lake City, Utah; Ohio State University Wexner Medical Center, Columbus, Ohio; Wake Forest University Baptist Medical Center, Winston-Salem, North Carolina; Vanderbilt University Medical Center, Nashville, Tennessee; John Hopkins Hospital, Baltimore, Maryland; Stanford University Medical Center, Palo Alto, California; University of Washington Medical Center, Seattle, Washington). Participating states include California, Colorado, Maryland, Massachusetts, Minnesota, North Carolina, Ohio, Tennessee, Utah, and Washington.

† Other race includes responses of Native American/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, and other; these were combined because of small sample sizes.

viruses and had similar exposures to persons with cases of such illnesses. Persons who did not respond, or refused to participate, could be systematically different from those who were interviewed for this investigation. Efforts to age- and sex-match participating case-patients and control-participants were not maintained because of participants not meeting the eligibility criteria, refusing to participate, or not responding, and this was accounted for in the analytic approach. Second, unmeasured confounding is possible, such that reported behaviors might represent factors, including concurrently participating in activities where possible exposures could have taken place, that were not included in the analysis or measured in the survey. Of note, the question assessing dining at a restaurant did not distinguish between indoor and outdoor options. In addition, the question about going to a bar or coffee shop did not distinguish between the venues or service delivery methods, which might represent different exposures. Third, adults in the study were from one of 11 participating health care facilities and might not be representative of the United States population. Fourth, participants were aware of their SARS-CoV-2 test results, which could have influenced their responses to questions about community exposures and close contacts. Finally, case or control status might be subject to misclassification because of imperfect sensitivity or specificity of PCR-based testing (9,10).

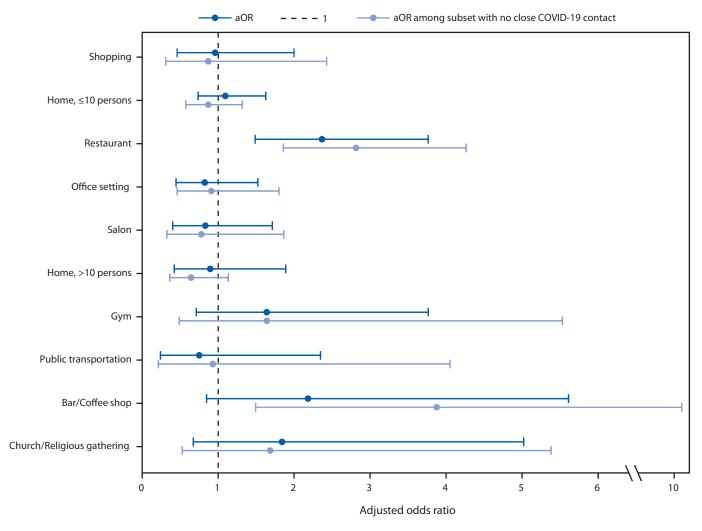
This investigation highlights differences in community and close contact exposures between adults who received a positive SARS-CoV-2 test result and those who received a negative SARS-CoV-2 test result. Continued assessment of various types of activities and exposures as communities, schools, and workplaces reopen is important. Exposures and activities where mask use and social distancing are difficult to maintain, including going to locations that offer on-site eating and drinking, might be important risk factors for

[§] Reported at least one of the following underlying chronic medical conditions: cardiac condition, hypertension, asthma, chronic obstructive pulmonary disease, immunodeficiency, psychiatric condition, diabetes, or obesity.

Community exposure questions asked were "In the 14 days before feeling ill about how often did you:" with options of "shop for items (groceries, prescriptions, home goods, clothing, etc.)" (missing = 1); "have people visit you inside your home or go inside someone else's home where there were more than 10 people"; "have people visit you inside your home or go inside someone else's home where there were 10 people or less"; "go to church or a religious gathering/place of worship" (missing = 1); "go to a restaurant (dine-in, any area designated by the restaurant including patio seating)" (missing = 1); "go to a bar or coffee shop (indoors)" (missing = 2); "use public transportation (bus, subway, streetcar, train, etc.)" (missing = 1); "go to an office setting (other than for healthcare purposes)" (missing = 1); "go to a gym or fitness center" (missing = 1); and "go to a salon or barber (e.g., hair salon, nail salon, etc.)" (missing = 1). Response options were coded as never versus at least once in the 14 days prior to illness onset. Some participants had missing data for exposure questions:

^{**} Other includes patients of health care workers (9), patron of a restaurant (1), spouse of employee (1), day care teacher (1), member of a religious congregation (1), and unspecified (1).

FIGURE. Adjusted odds ratio (aOR)* and 95% confidence intervals for community exposures † associated with confirmed COVID-19 among symptomatic adults aged \geq 18 years (N = 314) — United States, July 1–29, 2020



Abbreviation: COVID-19 = coronavirus disease 2019.

SARS-CoV-2 infection. Implementing safe practices to reduce exposures to SARS-CoV-2 during on-site eating and drinking should be considered to protect customers, employees, and communities \$\frac{9}{3}\$ and slow the spread of COVID-19.

Acknowledgments

Zhanar Haimovich, Northrop Grumman; Sherri Pals, Division of Global HIV & TB, Center for Global Health, CDC.

Corresponding author: Kiva A. Fisher, eocevent458@cdc.gov.

^{*} Adjusted for race/ethnicity, sex, age, and reporting at least one underlying chronic medical condition. Odds ratios were estimated using unconditional logistic regression with generalized estimating equations, which accounted for Influenza Vaccine Effectiveness in the Critically III Network site-level clustering. A second model was restricted to participants who did not report close contact to a person known to have COVID-19 (n = 225).

[†] Community exposure questions asked were "In the 14 days before feeling ill about how often did you: shop for items (groceries, prescriptions, home goods, clothing, etc.); have people visit you inside your home or go inside someone else's home where there were more than 10 people; have people visit you inside your home or go inside someone else's home where there were 10 people or less; go to church or a religious gathering/place of worship; go to a restaurant (dine-in, any area designated by the restaurant including patio seating); go to a bar or coffee shop (indoors); use public transportation (bus, subway, streetcar, train, etc.); go to an office setting (other than for healthcare purposes); go to a gym or fitness center; go to a salon or barber (e.g., hair salon, nail salon, etc.)." Response options were coded as never versus at least once in the 14 days before illness onset.

^{\$15} https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/personal-social-activities.html#restaurant; https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/business-employers/bars-restaurants.html; https://www.cdc.gov/coronavirus/2019-ncov/images/community/Rest_Bars_RiskAssessment.jpg.

Summary

What is already known about the topic?

Community and close contact exposures contribute to the spread of COVID-19.

What is added by this report?

Findings from a case-control investigation of symptomatic outpatients from 11 U.S. health care facilities found that close contact with persons with known COVID-19 or going to locations that offer on-site eating and drinking options were associated with COVID-19 positivity. Adults with positive SARS-CoV-2 test results were approximately twice as likely to have reported dining at a restaurant than were those with negative SARS-CoV-2 test results.

What are the implications for public health practice?

Eating and drinking on-site at locations that offer such options might be important risk factors associated with SARS-CoV-2 infection. Efforts to reduce possible exposures where mask use and social distancing are difficult to maintain, such as when eating and drinking, should be considered to protect customers, employees, and communities.

¹CDC COVID-19 Response Team; ²Epidemic Intelligence Service, CDC; ³Influenza Vaccine Effectiveness in the Critically Ill (IVY) Network; ⁴Vanderbilt University Medical Center, Nashville, Tennessee; ⁵Beth Israel Deaconess Medical Center, Boston, Massachusetts; ⁶Wake Forest University Baptist Medical Center, Winston-Salem, North Carolina; ⁷Hennepin County Medical Center, Minneapolis, Minnesota; ⁸Baystate Medical Center, Springfield, Massachusetts; ⁹Ohio State University Wexner Medical Center, Columbus, Ohio; ¹⁰University of Washington Medical Center, Seattle, Washington; ¹¹Stanford University Medical Center, Palo Alto, California; ¹²Intermountain Healthcare, Salt Lake City, Utah; ¹³Johns Hopkins Hospital, Baltimore, Maryland; ¹⁴University of Colorado School of Medicine, Aurora, Colorado.

IVY Network Investigators

Kimberly W. Hart, Vanderbilt University Medical Center; Robert McClellan, Vanderbilt University Medical Center; Hsi-nien Tan, Vanderbilt University Medical Center; Adrienne Baughman, Vanderbilt University Medical Center.

CDC COVID-19 Response Team

Nora A. Hennesy, CDC COVID-19 Response Team; Brittany Grear, CDC COVID-19 Response Team; Michael Wu, CDC COVID-19 Response Team; Kristin Mlynarczyk, CDC COVID-19 Response Team; Luc Marzano, CDC COVID-19 Response Team; Zuwena Plata, CDC COVID-19 Response Team; Samantha M. Olson, CDC COVID-19 Response Team; Samantha M. Olson, CDC COVID-19 Response Team; Constance E. Ogokeh, CDC COVID-19 Response Team; Emily R. Smith, CDC COVID-19 Response Team; Sara S. Kim, CDC COVID-19 Response Team; Bridget Richards, CDC COVID-19 Response Team; Sonya Robinson, CDC COVID-19 Response Team; Kaylee Kim, CDC COVID-19 Response Team; Ahmed M. Kassem, CDC COVID-19 Response Team; Courtney N. Sciarratta, CDC COVID-19 Response Team; Paula L. Marcet, CDC COVID-19 Response Team.

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References

- CDC. Coronavirus disease 2019 (COVID-19): implementation of mitigation strategies for communities with local COVID-19 transmission. Atlanta, GA: US Department of Health and Human Services; 2020. https://www.cdc.gov/coronavirus/2019-ncov/community/community-mitigation.html
- CDC. Coronavirus disease 2019 (COVID-19): community, work, and school: information for where you live, work, learn, and play. Atlanta, GA: US Department of Health and Human Services, CDC; 2020. https:// www.cdc.gov/coronavirus/2019-ncov/community/index.html
- Marshall K, Vahey GM, McDonald E, et al.; Colorado Investigation Team. Exposures before issuance of stay-at-home orders among persons with laboratory-confirmed COVID-19—Colorado, March 2020. MMWR Morb Mortal Wkly Rep 2020;69:847–9. https://doi. org/10.15585/mmwr.mm6926e4
- 4. Tenforde MW, Billig Rose E, Lindsell CJ, et al.; CDC COVID-19 Response Team. Characteristics of adult outpatients and inpatients with COVID-19—11 academic medical centers, United States, March– May 2020. MMWR Morb Mortal Wkly Rep 2020;69:841–6. https://doi.org/10.15585/mmwr.mm6926e3
- Stubblefield WB, Talbot HK, Feldstein L, et al.; Influenza Vaccine Effectiveness in the Critically Ill (IVY) Investigators. Seroprevalence of SARS-CoV-2 among frontline healthcare personnel during the first month of caring for COVID-19 patients—Nashville, Tennessee. Clin Infect Dis 2020;ciaa936. https://doi.org/10.1093/cid/ciaa936
- Harris PA, Taylor R, Minor BL, et al.; REDCap Consortium. The REDCap consortium: building an international community of software platform partners. J Biomed Inform 2019;95:103208. https://doi. org/10.1016/j.jbi.2019.103208

Morbidity and Mortality Weekly Report

- 7. Lu J, Gu J, Li K, et al. COVID-19 outbreak associated with air conditioning in restaurant, Guangzhou, China, 2020. Emerg Infect Dis 2020;26:1628–31. https://doi.org/10.3201/eid2607.200764
- 8. Lei H, Xu X, Xiao Ŝ, Wu X, Šhu Y. Household transmission of COVID-19-a systematic review and meta-analysis. J Infect 2020. Epub August 25, 2020. https://doi.org/10.1016/j.jinf.2020.08.033
- 9. Sethuraman N, Jeremiah SS, Ryo A. Interpreting diagnostic tests for SARS-CoV-2. JAMA 2020;323:2249–51. https://doi.org/10.1001/jama.2020.8259
- 10. Tahamtan A, Ardebili A. Real-time RT-PCR in COVID-19 detection: issues affecting the results. Expert Rev Mol Diagn 2020;20:453–4. https://doi.org/10.1080/14737159.2020.1757437

https://www.americasfrontlinedoctors.com/the-stand-the-truth-about-the-covid-19-vaccine.html?fbclid=IwAR2LzNjhiTmD23a-uyvv9zZ6Xk5KQ2jHrGAzeXozTzE16Nd08X96RZ0kuDw

https://swprs.org/face-masks-evidence/?fbclid=IwAR1Z5iTdw0MwZayv-UM_h5ST2FlVfnxoSsK8lmnm68myN4IvWWyztX7G0V8

 $\frac{https://rumble.com/vd3bmv-2020-dec-15-live-brave-interviewer-goes-off-reservation-honest-physician-sp.html?fbclid=IwAR0Q7zXcOPntYtVgaAF0uBroLoVX-ALFEnE1YKNXhbyZMFy7Gwncmk5fVCk$

https://www.sott.net/article/447733-NewsReal-34-Covid-By-Numbers

 $\frac{https://rumble.com/vdk1tz-2021-feb-04-doctors-around-the-world-issue-dire-warning-do-not-get-the-covi.html}{}$

Dear Committee Members,

Please grant us the freedom to choose to wear or not to wear a mask. Those that need to...are free to do so. There is too much data to mandate something that isn't truly effective. It feels communist to mandate such things. It feels like there is a negative motive here that doesn't match the real science.

Appreciate your time! God Bless!

Letter of Support for House Bill 1323

Dear Respected Members of the House,

I am writing to you today in support of House Bill 1323. My wife and I are part of the minority when it comes to wearing masks as both of us have medical conditions where wearing a mask is impossible. At the beginning of the whole pandemic when this was just a thought we did not pay attention, but then the mandates started to happen.

We told ourselves that it was not that bad, that they would not require them in Bismarck. That our elected officials would be better than that, to leave it to personal responsibility. We spent months facing ridicule being chastised and accused of not caring for others because we did not wear a face covering in public. It got to the point where my wife would not leave the house without me.

In September when this came to a head in Bismarck and Mandan, we listened very careful to the entire meeting. We had watched the news that day as Mayor Bakken said that it would not be coming to a vote or even a topic of discussion.

Then it happened. The proposal for the mandate. Hours of testimony as we sat quietly in our home listening to everything on Dakota Access, hoping that common sense would hold out. At the end it was suspended for a later date.

I did speak at the Morton County meeting two days later regarding the mask mandate which again we were assured that it would not be brought forward for a vote. I sat and listened intently because a mask mandate would affect my ability to work. After the doctor from custard health spoke in favor of the mask mandate I got up to talk.

I am a quiet man and have been my entire life. I had carefully written out everything I was going to say, but as I began to talk the emotion and fear of the unknown took over and I spoke from the heart. I spoke candidly about my condition, something that is very hard for me to do with family much less than with strangers. I spoke of the vaccine damage my wife had suffered in her early 20's. After I finished I quickly left as this is not the environment for me to be in.

Afterwards others like myself thanked me for speaking both in person and heartfelt messages on facebook. For standing to speak when they couldn't find the strength to do it for themselves. I continued to go to meetings in Bismarck and Mandan to speak again if I needed to on this issue because a mask mandate would literally make my employer choose between me and fines for me not wearing a mask.

This is a decision that no employee should have to do. Choose between their job and their health and here I was talking to people I didn't know over and over again.

The pinnacle of this was the meeting in Bismarck on October 27th. While I sat patiently waiting to speak and letting others go before me working up the nerve to talk my wife waited outside as they would not let her into the city commission building.

After I spoke we left quickly. It was not until we were home that I learned while I was inside 2 officers from the Bismarck police Department had denied her and my 3 year old daughter access to the building so my little girl could go to the restroom. The reason my wife was given was the building was at capacity.

They denied a child access to use the restroom that was literally right inside the door. As my wife carried our little girl down the street a reporter for KX tried to talk with her about it but as there were more

pressing things on her mind. Thankfully the amazing staff at fireflour allowed her to use their restrooms even though she was not a paying customer.

It went further though on November 13th when the governor put the mask mandate in place. Thankfully my employers have been very understanding, but as they are aware of what I deal with everyday they were very accommodating to me while the statewide mandate was in place. I have a badge that I have to wear that says I cannot wear a mask for health reasons but that has not stopped people from treating us like trash.

I have spent almost a year being treated like I am not human.

My daughter has been denied access to basic services by people whom we have taught her to respect. My wife rarely leaves the house.

We have a list of businesses that we will never go to again because of the treatment that we have received since March 13th of last year.

Today you have a way to stop at least a small part of what happened to my little family from ever happening again.

Sincerely Marvin Lepp

Testimony in support of HB 1323

Mask mandates provide businesses, organizations and government officials with the false idea that they can discriminate against a person for a health condition over which they have no control. I cannot wear a mask due to my severe asthma. I have children with the same condition. Being ejected from a store because of our health is pure and simple discrimination. Should this continue, the state of North Dakota and its many businesses and organizations will be getting sued for violating the rights of individuals with specific health conditions that they cannot control.

HB 1323

Testimony by April Heinz

2/4/21

I am writing in Support of HB 1323 relating to limitations on mask wearing requirements. There are numerous reasons I dislike the idea of anyone wearing a mask, with the exception of ones in the medical field that has been in place for years.

I dislike the fact that kids in daycare centers, and in schools and universities are being made and taught that wearing these "protect others" when it does not. It says it on the box. Lets quit scaring these kids and get them and everyone else out of masks. Everyone is responsible to protect themselves, not others.

Thank you for your attention to this matter.

April Heinz

Vote yes to HB 1323 Dear Legislators,

Good afternoon! Thank you for listening to me today. Please keep freedom and choices available as viable options for ND citizens and say yes to Bill 1323 because it will open doors for us and it will continue to motivate our citizens to intelligently research and to wisely conclude the role mask wearing will play in our various businesses and the lives of ND individuals. There are important variables which need to be considered and applied in each individual case represented. This reality necessitates the move to end any mask mandates.

Thank you for your attention to this matter. Please vote yes to HB 1323.

Sincerely, Alida Arnegard Member of NDCA Watford City, ND

2021 HOUSE STANDING COMMITTEE MINUTES

Political Subdivisions Committee

Room JW327B, State Capitol

HB 1323 2/11/2021

Relating to limitations on mask wearing requirements

Chairman Dockter: (6:00pm) Opened the hearing.

Representatives	
Representative Jason Dockter	Р
Representative Brandy Pyle	Р
Representative Mary Adams	Р
Representative Claire Cory	Р
Representative Sebastian Ertelt	Р
Representative Clayton Fegley	Р
Representative Patrick Hatlestad	Р
Representative Mary Johnson	Р
Representative Lawrence R. Klemin	Р
Representative Donald Longmuir	Р
Representative Dave Nehring	Р
Representative Marvin E. Nelson	Р
Representative Luke Simons	Р
Representative Nathan Toman	Р

Discussion Topics:

Mask mandates

Rep. Johnson: Made a do not pass motion.

Rep. Adams: Second the motion.

Representatives	Vote
Representative Jason Dockter	Y
Representative Brandy Pyle	Υ
Representative Mary Adams	Y
Representative Claire Cory	Y
Representative Sebastian Ertelt	N
Representative Clayton Fegley	N
Representative Patrick Hatlestad	Y
Representative Mary Johnson	Y
Representative Lawrence R. Klemin	Υ
Representative Donald Longmuir	Υ
Representative Dave Nehring	N

House Political Subdivisions Committee HB 1323 2-11-21 Page 2

Representative Marvin E. Nelson	Υ
Representative Luke Simons	N
Representative Nathan Toman	N

9-5-0 carried

Rep. Longmuir: Will carry the bill.

Chairman Dockter: (6:11). Closed the hearing.

Carmen Hickle, Committee Clerk

Module ID: h_stcomrep_08_037

Carrier: Longmuir

REPORT OF STANDING COMMITTEE

HB 1323: Political Subdivisions Committee (Rep. Dockter, Chairman) recommends DO NOT PASS (9 YEAS, 5 NAYS, 0 ABSENT AND NOT VOTING). HB 1323 was placed on the Eleventh order on the calendar.

2021 SENATE POLITICAL SUBDIVISIONS

HB 1323

2021 SENATE STANDING COMMITTEE MINUTES

Political Subdivisions Committee

Sakakawea, State Capitol

HB 1323 4/1/2021

A BILL for an Act to create and enact a new section to chapter 23-07 of the North Dakota Century Code, relating to limitations on mask wearing requirements.

Chairman Burckhard opened the hearing on HB 1323 at 8:30 a.m. Members present: Burckhard, Anderson, Lee, Larson, Kannianen, Oban, Heitkamp.

Discussion Topics:

- OSHA certification
- Mask efficacy/transmission rate
- Home rule
- Disability Act
- Accommodation requests
- Mask usage in ND DOCR
- Public health and citizen rights
- · Community spread
- Alternative therapies information
- [8:31] Representative Jeff Hoverson, District 3. Introduced HB 1323 and provided testimony #11265 in favor and provided proposed amendments 21.0189.02002 (testimony #11269) and 21.0189.02003 (testimony #11267).
- [8:35] Representative Jeffery Magrum, District 28. Provided oral testimony in favor.
- [8:36] Tammy Clark, PPE Expert & Kristen Meghan Kelly, Industrial Hygienist. Provided oral testimony in favor.
- **[9:10] Todd Kielland, ND Citizen.** Provided oral testimony in favor #11375.
- [9:18] William Jorgensen, Teacher. Provided testimony #11273 and #11274 in opposition.
- [9:29] Nick Archuleta, President, ND United. Provided testimony #11260 in opposition.
- [9:33] Amy De Kok, Legal Counsel, ND School Boards Association. Provided testimony #11261 in opposition.
- [9:37] Dr. Paul Carson SU MPH, MD, Epidemiologist, NDSU Instructor. Provided testimony #11177 and #11178 in opposition.
- [9:48] John Hagan, MD, Correctional Health Authority, ND DOCR. Provided testimony #11240 in opposition.

Senate Political Subdivisions Committee HB 1323 4/1/2021 Page 2

[9:57] Kirby Kruger, Section Chief, Disease Control and Forensic Pathology Section, NDDoH. Provided testimony #11242 in opposition.

[10:04] Recess

[10:12] Stephen McDonough, Pediatrician, ND Citizen. Provided testimony #11020 in opposition.

[10:20] Chad Peterson, Cass County Commission Chair. Provided testimony #11283 in opposition.

[10:27] Dr. Jean Gullicks, Family Nurse Practitioner. Provided oral neutral testimony.

[10:37] Dr. Edward Fogarty, MD. Provided neutral testimony #11263.

Chairman Burckhard closed the hearing on HB 1323 at 10:53 a.m.

Patricia Lahr, Committee Clerk

Mr Chairman, members of this committee:

HB 1323 arrived here for you today with a victory for good reason. It represents the people for the past 131 years. Never in America's history, through all the wars and pandemic have we saw it fit to take away people's God given rights: until 2020.

Our primary role as legislators, is to preserve and protect the rights and freedoms of the people we represent. It is not for us, or for mayors, political subs, counties, schools or any government entity to take away individuals freedom to control their health or their children's health. This power has been taken and given to unelected officials; and there are many people watching us today that are simply asking for that power to return. That is true local control. Not for the sake of selfishness, but because freedom of a few hundred thousand individuals and families, have proven and always will be, far better than a few bureaucrats in government, at achieving the goals we all share: a safe and healthy society.

This bill does NOT tell private businesses, nor does it prohibit anyone from wearing a mask. You will see that, line 10, referring to employment, entry, etc is UNDER subsection 1 which is that no government can mandate these things upon a private business. Business owners may still do as they choose best for them.

It simply puts the power back where it belongs. All I ask is that you preserve the integrity of this bill. Amend to improve not reduce or destroy. I have offered some that clear up some confusions.

Due to limited time, I yield my time to our expert guests. They went through a lot to be here at no cost, because they are servants. Even yesterday, someone powerful, got Delta doctors to deny their access along with the other Grand Rapids airlines. God had something else in mind and provided pilots from a ministry.

So please afford them our attention as they will help North Dakota and Let's give them a good old fashioned North Dakota welcome

Tammy Clark and Kristen Meghan

Thank you, Test Hoverson, Dist-3 Ref

21.0189.02002 Title. Prepared by the Legislative Council staff for Representative Hoverson February 8, 2021 #11269

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1323

Page 1, line 9, after "covering" insert "unless the mandate was in effect before January 1, 2020"

Renumber accordingly

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1323

#11267

Page 1, line 8, replace "mandate" with ":

a. Mandate"

Page 1, line 9, remove the underscored period

Page 1, line 10, replace "2. Subsection 1 prohibits making" with "; or

b. Make the"

Page 1, after line 11, insert:

"2. Subsection 1 does not apply if the requirement to use a face mask, shield, or covering was in effect before January 1, 2020."

Renumber accordingly

Sixty-seventh Legislative Assembly of North Dakota

Re: Testimony in favor of HB 1323

Attn: Committee Members,

I, Todd Kjelland am writing in strong favor of passing House Bill 1323.

Below is my original testimony, however I wish to share my personal story of how the practice of using masks created a toxic work environment, encouraged illegal corporate culture and can destroy a person's livelihood and reputation.

My employment was terminated October 24, 2020 and is currently under EEOC investigation as a direct result from a forced masking policy initiated during the 2019 mandatory flu vaccination period. If HB1323 would have been law in 2019, Today I believe I would still be gainfully employed and would not have been subjected to a year-and-a-half of harassment and a future of litigation.

I hope the following personal account will set the record straight and be an inspiration to all healthcare workers who have been subjected to inhumane treatment regarding masking policies, mandatory flu vaccines, mandatory Covid 19 testing and undoubtedly, the proposed future mandatory Covid 19 vaccine.

As I hold fast to my personal religious and ethical beliefs, I also stand with my co-workers who are treated as chattel in the eyes of corporate leadership. In the current situation employees are simply mistreated as profit centers instead of being respected with each having personal investment in their health, careers and personal lives.

In 2019, I filed a religious exemption against a mandatory flu vaccine policy and it was accepted. My options at that point was to either wear a mask within 6ft of a resident or furlough. Both of which in my opinion are coercive and with evidence supporting long term mask use is harmful to my health.

I am against the mandatory mask wearing and tried to file a religious exemption against the mask itself with several professional scientific and ethical documents (even more are now since Covid) proving their ineffectiveness. By EEOC law a company is supposed to "prove" undue hardship or accommodate, and they couldn't or failed to try. They didn't even recognize my request as separate from the flu shot exemption, and kept insisting that "No, we granted you the exemption and the accommodation is masking or furlough." They never recognized my religious exemption against the mask itself. However, this eventually ran into a dead end. They also intentionally misled me by saying there was no exemption for the mask. I asked all the way up the ladder and they dismissed me each time. They kept directing me to "problem resolution" which did nothing. I later found out they had an exemption form made in July 2019 for that purpose. So they basically gave me the run around and failed to accommodate.

It got so bad to the point where I sent a demand letter (partial below) with charges:

This letter serves as a notice to GSS/SH (my Employer) for commencing legal remedy for the following legal and ethical violations;

In regard to violations of United States Federal Code, Title 45; Subtitle B; Chapter VI; Part 689 GSS/SH failed to disclose the company's intent to collect a financial bonus of two percent (2%) of Medicare/Medicaid payments if the company could boost employee flu vaccine participation above a

ninety percent (90%) threshold as predetermined by Federal Healthy People 2020 goals. Intentional non-disclosure of the financial gain violates Informed Consent Law and violates the medical industry code of ethics and thus committed one count of a criminal act of Battery for each employee who received the mandatory flu vaccine. If the patient has been lied to about the treatment or there is other fraud in the informed consent, then the entire consent is invalid.

GSS/SH also willfully denied obtaining grant money from vaccine manufacturers Merck and Sanofi Pasteur for their VAX Champ program which violates ethical conduct. Sanofi Pasteur supplied the 2019-2020 flu vaccine.

Federal law defines human subjects research in the United States as a systematic investigation about an interaction or intervention with a living individual that's designed to create generalizable knowledge.

GSS/SH conducts unethical and deceitful human experimentation through their mandatory flu vaccine policy. They collect and record data regarding participation for inclusion in the state registry along with collecting information of personal health history, and status of pregnancy. This defines the mandatory flu vaccine policy as a clinical trial or human experiment thus further advocating the Federal requirements of "informed consent."

Valid informed consent must include three major elements: (1) disclosure of all information, (2) competency of the patient (or surrogate) to make a decision, and (3) voluntary nature of the decision.

GSS/SH violates part 1 by withholding financial information, part 3, voluntary nature of the decision because the company's only "unreasonable accommodations" are furlough without pay or shaming by masking which are both coercive by nature, both being punishments intentionally prolonged by two months over the flu season dates of prior years. In 2018-19, GSS declared the flu season to be November 1 through March 31. GSS/SH in 2019-20 extended the flu season without reasonable cause from November 1 to May 31 for added coercive 'intent to harm' measures.

GSS/SH mandated flu vaccine policy is an intentional act of coercion which violates Federal Laws of Labor Trafficking. GSS/SH gained financial benefit, coerced employees to comply through unreasonable accommodations, thus exploiting employees as defined by 18 U.S. Code Chapter 77, Title 18.

GSS/SH failed to disclose the company's intent to collect a financial bonus of two percent (2%) of Medicare/Medicaid payments if the company could boost employee flu vaccine participation above a ninety percent (90%) threshold as determined by Federal Healthy People 2020 goals. Coercion of compliance through threat of job loss and/or public shaming via masking forced employees to choose between complete compliance, spiritual ethics and/or personal financial sovereignty.

My letter was dismissed without any internal investigation. Quoting the standard "your case has no merit"

My company had an obligation to answer my informed consent questions regarding these issues and failed to give me that opportunity with a medical doctor.

I could go on regarding the retaliation treatment I received before, during and after my experience, however it becomes very detailed and long. But without a doubt my experience would have been prevented if mandatory masking was not an option for corporations to boost vaccination numbers to receive a payout from CMS.

Below is my original testimony on HB 1323. Please feel free to reach out if you have any questions.

...As Dr Fauci himself said... (https://www.nih.gov/news-events/news-releases/bacterial-pneumonia-caused-most-deaths-1918-influenza-pandemic)

a. "...The work presents complementary lines of evidence from the fields of pathology and history of medicine to support this conclusion. "The weight of evidence we examined from both historical and modern analyses of the 1918 influenza pandemic favors a scenario in which viral damage followed by bacterial pneumonia led to the vast majority of deaths," says co-author NIAID Director Anthony S. Fauci, M.D. "In essence, the virus landed the first blow while bacteria delivered the knockout punch."

While the scientific evidence regarding effectiveness and safety of masking for viral protection is in question, the perception of mask wearers has a long negative history, most which is also contrary to religious beliefs.

The symbol of the mask itself represents demonic tendencies of deception.

Shame masks were a type of embarrassing punishment device used in Europe during the Middle Ages until 18th century. A "shame mask," intended to silence their wagging tongues and offensive behavior. In a perfect world, it would be used on the cast members of the Bad Girls Club; but unfortunately it was used on women who spoke their minds to their husbands instead of being subservient like the Bible demanded, or on women accused of being witches or gossips; or in the Americas on disobedient slaves or on Quaker women who preached in public. (https://cvltnation.com/know-your-place-medieval-shame-masks/)

Leper masks carry a stigma of leprosy which persists not only because of the term's metaphorical connotations, but also because of the disease's complicated history, in which non-leprous populations who confronted the disease ignored medical knowledge and favored a reconstructed medieval view of the disease, judging it to be highly contagious and a result of sin. The modern stigma of one wearing a surgical style mask outside of the normal hospital emergency or surgical room carries a stigma of the wearer being infectious.

Modern day masks have sparked controversy creating anti-mask or anti-masking laws which are legislative or penal initiatives that seek to stop individuals from concealing their faces while protesting, who do so often to not be identified or out of religious practice. This has created a public fear perception of anyone wearing a mask.

Modern NEWS channels often show video footage of masked ISIS fighters and terrorists wearing masks. This reinforces fear of people who conceal their faces.

Masks are often used in Pagen and Wicca rituals and can shift one's perspective from the outer, to the inner. "The creation of internal reality by the mind is confirmed by the consideration of altered states of consciousness. However, in some religions, masks are seen as evil and are condemned, such as with the rise of Christianity where the Church Councils damned the practice of using masks.

Masks of all sorts can create fear. In a nursing facility with many residents facing memory loss, a friendly face is oftentimes a redirecting strategy. If they can't see a face, their fear may elevate into panic or worse. The same goes for vulnerable people in a public setting.

Mask wearing has become a scarlet letter to the healthy. Healthy people now must prove they are not sick instead of the sick proving they are well. This is akin to proving one's innocents instead of proving one's guilt in a court of law.

While making the argument that wearing surgical masks **over long durations** has not been fully studied or documented, **the potential safety risks are sufficient enough to warrant suspension of all mandated policy** until additional private-peer reviewed studies prove sufficient scientific and psychological safety. Intentional LACK of long-term study would prove to be negligent after the fact of implementing a mandatory masking policy.

But let me be honest...Unfortunately, the mandates really have nothing to do with customer concern or public safety. The act of masking is an ongoing social experiment as compliance records are kept, especially in health care settings, and the data is collected, analyzed and manipulated for government benefit. I think we all have seen undeniable manipulation of numbers regarding this latest pandemic.

The conclusions of the Nuremberg Tribunal unequivocally states that "voluntary consent of the human subject is absolutely essential" and individuals should "be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress or other ulterior forms of constraint or coercion." Moreover, people must be provided with "sufficient knowledge and comprehension of the elements of the subject matter involved as to enable them to make an understanding and enlightened decision." (Nuremberg Tribunal 1949, pp 181)

Thank you for your time. It's a DO PASS for HB 1323 for me.

Todd Kjelland

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WRITTEN PRESENTATION OF

TESTIMONY BEFORE THE NORTH DAKOTA

POLITICAL SUBDIVISIONS COMMITTEE April 1st, 2021

By: William Jorgensen; Teacher,
Interventionist at Eight Mile School District
6, Trenton North Dakota

I want to thank the Committee, and Brad Bekkedahl, my Senator from Williston for giving me this opportunity to testify before you regarding House Bill 1323. After 3½ years of teaching in Fargo, North Dakota's largest school district, one year in Epping, one of North Dakota's smallest districts, followed by 37 years in business, in 2010 I stepped back into education when Superintendent Greg McNary hired me to drive school bus. I quickly moved into double and triple duties at District Eight, driving school bus, becoming Director of Busing, and working with Special Needs children. My job as director of the program was to redesign the bus routing system to make it safer, and more efficient for our students and drivers. I also did substitute teaching at Eight Mile School District 6, Trenton, ND.

In the summer of the 2013/2014 school year, a job opened at Trenton for a Social Studies Teacher. I was asked to move into the position because of my work at Trenton, my professionalism, and my work ethics. I have been at Trenton ever since and will be starting my 9th year of work there in the 2021/2022 school year. I am currently the High School Interventionist and online coordinator for the Trenton Digital Academy. Part of my job is to act as the liaison between the teachers, students, and parents. In addition to that, I do all grading and working with students on their online classes. We started working on our remote learning programs within days of our shut down in March of 2020 and had it up and running within a noticeably brief period. Over the summer, our teachers and administrators worked to make the program even better. But our goal was to have our students back in school instead of remote learning. Our teacher leadership

committee along with administration worked extremely hard to develop a safe way to bring our students back into the classroom by the start of school year 2021/2022. This group developed a safe, proactive way to get our kids back in the classroom by implementing a mandatory "mask wearing" program in school by students, teachers, staff, paras, administration, and all visitors. Masks were also required on all school buses with mandatory seating assignments. These seating assignments were extended to all classrooms also so that contact tracing could be accomplished when necessary.

Because of my age (71), at the end of the 2020/2021 school year and my knowledge of COVID-19 I was genuinely concerned and considered retiring. But with the leadership of our teacher leadership committee, our Superintendent, Matt Schriver, our two principals, Steve Morban and Kay Cavanaugh, I decided to stay and help do the online program and continue my intervention work. It is only because of their hard work and the following of state and CDC guidelines in regards to COVID-19 that our school has had the remarkable success we have had.

At the beginning of the school year, we had to shut down because the virus was brought in from the outside by a number of students. We went to remote learning from that time until just after Labor Day, and then an alternating in school/remote learning for another period of time. Since that time because of our mandated "mask wearing," sanitizing, and deep cleaning we have been doing in class instruction and will continue until the end of the school year. Our school has been a success, a success that scientifically we can say happened because we followed the CDC and state DPI guidelines. I make this statement because of my Health major, Physical Education major, my History major, my

Athletic Training minor, and a strong background in biology from the University of Minnesota, Mankato, and Minot State.

I started back in December of 2019 when the virus first was heard of and broke out in Wuhan, China talking to my students about the virus and the highly likely possibility it would come here. I was not on the ground in China, information was in short supply but if you looked hard enough you could find it. The young Chinese doctor, who first broke the news, got in trouble with the Chinese government, and later died from the virus was a reliable source of information for me. He gave his life trying to warn us. But he also gave us clues, and this is why way before almost anyone in this country started wearing a mask, I did. I told my students I would never lie to them or mislead them. I wanted them to know and understand that knowledge is power and gives you the power to make good decisions. This helps quell fear and mistrust.

Gentlemen the truth matters! Science has put us on the moon, protected the peace, given us lifesaving medicines, and has moved us to the point where we have a chance to control this virus once and for all. This virus has shown how truly united the world is both positive and negative. I showed my students how a person who is knowingly or unknowingly infected can get on a plane in Wuhan, fly to the west coast, fly to Chicago, fly to New York, fly to London, fly to Pairs, fly to Dubai, fly to Mumbai, and then back to China in just two or three days. This person can infect people all the way around the world, who then infect all the people they come in contact with. I started wearing a mask because of my knowledge of how diseases spread like the flu and information that was there if you were willing to listen and hear it. I have continued ever since and will continue for the foreseeable future. Neither my wife nor I have been sick all year

long, and both of us have worn a mask. We gave up Christmas and Thanksgiving with our son and daughter-in-law to protect ourselves and them. My son is a Doctor of Nurse Anesthetist. He knows the importance of wearing masks. Would any of you let a surgeon and the nurse team come in and do your surgery without wearing PPE which include a mask? You know the answer is no. Would my State Senator who is a dentist not wear a mask during his work? You know the answer is no.

Again, our school put a plan in place that worked. It allowed for in person classroom instruction and the safety of our students, staff, and parents. "Masks" are and will remain a critical part of our success story. Social distancing, contact tracing, and sanitizing are also a part of the success we have had. Do not take our ability to make and implement programs that put the SAFETY of students, staff, administration, and parents in jeopardy!

As Republicans you are supposedly on the side of pro local control. Pro health and safety of first responders which includes, police, EMTs, doctors, nurses, and fire fighters. Are you now going to give up that mantle? Are you now going to "take a way" control of businesses, local mayors, local school boards, local doctors, the State Health Department, DPI, and our elected Governor? What if, yes, what if another even more devastating virus comes in or this mutates and becomes more deadly as if 550,500 is not enough!

You must vote down and defeat this misguided pseudo-science attempt in House Bill 1323 to fundamentally kill science, local and private control, good Public Health Practices that are scientifically rooted in sound science that saves lives. Laws based in science already regulate lives to prevent unnecessary death in the name of safety and public health. Seat belts are required; tough DUI

laws are in place; no smoking in buildings of all kinds even restaurants and bars is in place; laws requiring a special license to drive a motorcycle; tough laws when I was a kid for teenage driver license requirements; speed limit laws; laws limiting constitutional free speech. These are just a few of the hundreds of laws that you or the Federal Government has passed, all based in science and sound logic in the name of Public Health and Safety.

Misinformation, unscientific claims, self-centeredness, all shouted in the name of "You are violating my rights," does not make it true. The United State Supreme Court ruled in *Jacobson v*, *Massachusetts*, on February 20th, 1905 that the good and welfare of the Commonweath outweighs the need of Jacobson. We have always and sometimes reluctantly passed laws to protect lives and Public Health. A mandate by the Governor, businesses, local mayors, local school boards is a temporary measure to save lives, not permanent law. It is a public health measure that is put into place "because some individual(s) refuse to put the wellbeing of the majority of people when it comes to saving lives, above their own selfish, self-centered wants or desires.

There will be another pandemic, and we are not even out of this one yet! You cannot and must not put the Public Safety of the majority of North Dakotans are risk because of a few who do not believe or follow science. The next one may even be more contagious and deadly. Do not hamstring your leaders from the Governor to local school boards from taking the action to save lives. If you do, the blood of the <u>unnecessary</u> lives lost are on your hands. The economic toll that will be far greater is also on your hands. You must not prevent the Governor, Public Health Officials, Local School Boards from making Public Health decisions.

This is not a Democrat or a Republican issue. This is a Public Health and safety issue. Let the scientist, doctors, and those on the front lines make the decisions that they know will save lives. NO ONE WANTS OR DESERVES AN EMPTY CHAIR AT THE TABLE NEXT CHRISTMAS, THANKSGIVING, OR THE NEXT. Defeat this misguided Anti-science, Anti-life, Anti-common-sense bill and do not make our great state look like "pariah!"

Thank you for your patience and time! If you have any questions, I will answer them at this time.

The New York Times

https://nyti.ms/3bGlbjW

#11274

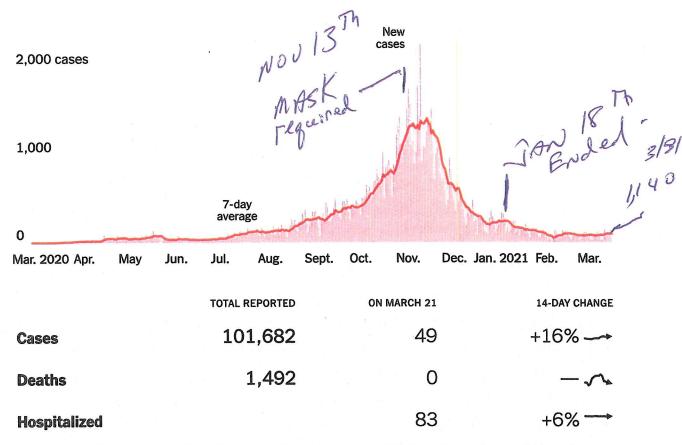
U.S.A.

World

Health

North Dakota Coronavirus Map and Case Count

Updated March 22, 2021, 8:10 A.M. E.T.



Day with reporting anomaly. Hospitalization data from the U.S. Department of Health and Human Services; 14-day change trends use 7-day averages.

Jump to:

Map

By county

New cases

Clusters

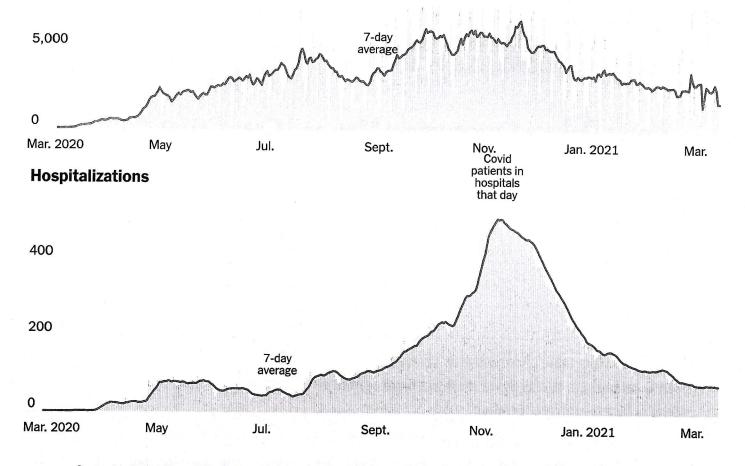
At least 49 new cases were reported in North Dakota on March 21. Over the past week, there has been an average of 96 cases per day, an increase Help make The New York Times better: Take of 16 percent from the average two weeks earlier survey.

Hot spots

Total cases

Deaths

START Per capita



Source: Testing and hospitalization data from the U.S. Department of Health and Human Services. <u>About this data</u>

If the previous level of testing was low, and hospitalizations are not increasing, a rise in daily cases could be explained as a result of increased testing. If daily tests have been increased and cases and hospitalizations have fallen or stayed low, that is a sign that the situation is improving or under control. Hospitalizations and deaths usually lag behind new cases, as it takes time for symptoms to develop and worsen.

Because the definitions used for testing and hospitalization data vary between states, it is not always possible to compare that data in one state to the figures reported in another.

We're tracking restrictions in North Dakota »

Since March, The Times has paid special attention to cases in nursing homes, food processing plants, correctional fletilities the work to these places comes from and universities. Information on cases linked to these places comes from

START

< RETURN TO THE FULL ARTICLE VIEW

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5 Reasons to Wear a Mask Even After You're Vaccinated

By Liz Szabo · JANUARY 15, 2021

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<h1>5 Reasons to Wear a Mask Even After You're Vaccinated</h1>
<div> Liz Szabo, Kaiser Health News

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Some elements may be removed from this article due to republishing restrictions. If you have questions about available photos or other content, please contact khnweb@kff.org.

As an emergency physician, Dr. Eugenia South was in the first group of people to receive a covid vaccine. She received her second dose last week — even before President-elect Joe Biden.

Yet South said she's in no rush to throw away her face mask.

"I honestly don't think I'll ever go without a mask at work again," said South, faculty director of the Urban Health Lab at the University of Pennsylvania in Philadelphia. "I don't think I'll ever feel safe doing that."

And although covid vaccines are highly effective, South plans to continue wearing her mask outside the hospital as well.

Health experts say there are good reasons to follow her example.

"Masks and social distancing will need to continue into the foreseeable future — until we have some level of herd immunity," said Dr. Preeti Malani, chief health officer at the University of Michigan. "Masks and distancing are here to stay."

Malani and other health experts explained five reasons Americans should hold on to their masks:

1. No vaccine is 100% effective.

Large clinical trials found that two doses of the <u>Moderna</u> and <u>Pfizer-BioNTech</u> vaccines prevented 95% of illnesses caused by the coronavirus. While those results are impressive, 1 in 20 people are left unprotected, said Dr. Tom Frieden, a former director of the Centers for Disease Control and Prevention.

Malani notes that vaccines were tested in controlled clinical trials at top medical centers, under optimal conditions.

In the real world, vaccines are usually slightly less effective. Scientists use specific terms to describe the phenomenon. They refer to the protection offered by vaccines in clinical trials as <u>"efficacy,"</u> while the actual immunity seen in a vaccinated population is "effectiveness."

The effectiveness of covid vaccines could be affected by the way they're handled, Malani said. The genetic material used in mRNA vaccines — made with messenger RNA from the coronavirus — is so fragile that it has to be carefully stored and

transported.

Any variation from the CDC's <u>strict guidance</u> could influence how well vaccines work, Malani said.

2. Vaccines don't provide immediate protection.

No vaccine is effective right away, Malani said. It takes about two weeks for the immune system to make the antibodies that block viral infections.

Covid vaccines will take a little longer than other inoculations, such as the flu shot, because both the Moderna and Pfizer products require two doses. The Pfizer shots are given three weeks apart; the Moderna shots, four weeks apart.

In other words, full protection won't arrive until five or six weeks after the first shot. So, a person vaccinated on New Year's Day won't be fully protected until Valentine's Day.

3. Covid vaccines may not prevent you from spreading the virus.

Vaccines can provide two levels of protection. The measles vaccine prevents viruses from causing infection, so vaccinated people don't spread the infection or develop symptoms.

Most other vaccines — including flu shots — prevent people from becoming sick but not from becoming infected or passing the virus to others, said Dr. Paul Offit, who advises the <u>National Institutes of Health</u> and <u>Food and Drug Administration</u> on covid vaccines.

While covid vaccines clearly prevent illness, researchers need more time to figure out whether they prevent transmission, too, said Phoenix-based epidemiologist Saskia Popescu, an assistant professor in the biodefense program at George Mason

University's Schar School of Policy and Government.

"We don't yet know if the vaccine protects against infection, or only against illness," said Frieden, now CEO of Resolve to Save Lives, a global public health initiative. "In other words, a vaccinated person might still be able to spread the virus, even if they don't feel sick."

Until researchers can answer that question, Frieden said, wearing masks is the safest way for vaccinated people to protect those around them.

4. Masks protect people with compromised immune systems.

People with cancer are at particular risk from covid. Studies show they're more likely than others to become <u>infected and die</u> from the virus, but may not be protected by vaccines, said Dr. Gary Lyman, a professor at Fred Hutchinson Cancer Research Center.

Cancer patients are vulnerable in multiple ways. People with lung cancer are less able to fight off pneumonia, while those undergoing chemotherapy or radiation treatment have <u>weakened immune systems</u>. Leukemia and lymphoma attack immune cells directly, which makes it harder for patients to fight off the virus.

Doctors don't know much about how people with cancer will respond to vaccines, because they were excluded from randomized trials, Lyman said. Only a handful of study participants were diagnosed with cancer after enrolling. Among those people, covid vaccines protected only 76%.

Although the vaccines appear safe, "prior studies with other vaccines raise concerns that immunosuppressed patients, including cancer patients, may not mount as great an immune response as healthy patients," Lyman said. "For now, we should assume that patients with cancer may not experience the 95% efficacy."

Some people aren't able to be vaccinated.

While most people with allergies can receive covid vaccines safely, the CDC advises those who have had <u>severe allergic reactions to vaccine ingredients</u>, including polyethylene glycol, to avoid vaccination. The agency also warns people who have had dangerous allergic reactions to a first vaccine dose to skip the second.

Lyman encourages people to continue wearing masks to protect those with cancer and others who won't be fully protected.

5. Masks protect against any strain of the coronavirus, in spite of genetic mutations.

Global health leaders are extremely concerned about <u>new genetic variants of the coronavirus</u>, which appear to be at least <u>50% more contagious</u> than the original.

So far, studies suggest vaccines will still work against these new strains.

One thing is clear: Public health measures — such as avoiding crowds, physical distancing and masks — reduce the risk of contracting all strains of the coronavirus, as well as other respiratory diseases, Frieden said. For example, the <u>number of flu cases worldwide</u> has been dramatically lower since countries began asking citizens to stay home and wear masks.

"Masks will remain effective," Malani said. "But careful and consistent use will be essential."

The best hope for ending the pandemic isn't to choose between masks, physical distancing and vaccines, Offit said, but to combine them. "The three approaches work best as a team," he said.

Great Public Service

Testimony on HB 1323 Senate Political Subdivisions Committee April 1, 2021

Chairman Burckhard and members of the Committee, my name is Nick Archuleta, and I am the president of North Dakota United. North Dakota United is a union of professionals including teachers, education support professionals, higher education faculty, as well as, state, county, and municipal employees. On their behalf, I rise today to oppose HB 1323 and to urge a Do Not Pass recommendation for this bill.

Mr. Chairman, HB 1323 is an ill-conceived piece of legislation that would prohibit state or locally elected officials, the state of ND, and political subdivisions from mandating the use of facemasks, face shields, or other face coverings. In essence, HB 1323 would prohibit the governor, a local school board, agency head, mayor, or city council or commission, from attempting to mitigate the effects of an airborne health hazard, like the Coronavirus. This legislation represents an incredible overreach by the legislature in usurping the authority currently vested in the executive branch and political subdivisions. The effects of HB 1323, should it become law, would hamstring statewide, as well as local efforts, to keep North Dakotans safe in the event of a health emergency like the one we are currently experiencing.

Members of the Committee, during the crossover recess, I was invited to join the leadership of the Fargo and West Fargo public school districts, as well as legislators representing those districts, in an early morning meeting. The message we heard could not be clearer: should HB 1323 pass, it would be impossible for either district to offer full time face to face instruction if they could not enforce a mask mandate.

Make no mistake, HB 1323 is a statement bill intended to express the displeasure of the bill's sponsors with the actions taken by the governor and several cities to initiate mask mandates. The fact that those mandates helped to drive down the rate of infection notwithstanding, the sponsors are determined to make an ideological point by passing this bill. Their political spitting match with the governor and mayors might make for must-see political theater. However, when the health and safety of school children, teachers, education support professionals, and the public hang in the balance, this drama becomes more like the theater of the absurd.

Chairman Burckhard, the science regarding the efficacy of wearing facemasks is well established. When face masks are utilized in public spaces, infections drop. Airborne transmission of viruses including the flu drop. HB 1323 is not only unnecessary and irresponsible, but it also removes an effective tool that the state and its political subdivisions have utilized to mitigate the effects of the Coronavirus and COVID-19.

Great Public Schools

Great Public Service

For these reasons, Chairman Burkhard and members of the Committee, I urge a Do Not Pass recommendation for HB 1323.

With that, my testimony is concluded, and I am happy to stand for any questions.



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HB 1323 Testimony of Amy De Kok Senate Political Subdivisions April 1, 2021

Chairman Burckhard and members of the Senate Political Subdivisions Committee, my name is Amy De Kok. I am in-house legal counsel for the North Dakota School Boards Association. NDSBA represents all 175 North Dakota public school districts and their boards. I am here today in opposition to HB 1323

HB 1323, if passed, would prohibit local elected officials and political subdivisions from requiring an individual to use a face mask, face shield or face covering for purposes of entry, education, employment or services. This prohibition would extend to local school boards and public school districts and would mean they would be unable to require staff, students, parents, visitors or any patron who steps onto school property or attends a school event to wear any kind of face covering regardless of the circumstances. The bill contains no exceptions and is not limited to the current public health crisis.

Over the past year, public schools, like many others, have faced incredible challenges in continuing to operate during the pandemic. One of, if not the primary, reasons the vast majority of our schools were able to return to in-person instruction early this fall was their ability to require their staff and students to wear masks. This, along with other mitigation measures like social distancing, kept transmission rates low. Had schools not been able to require masks and face coverings, we almost certainly would have had higher transmission rates leading to additional outbreaks and school closures. Schools were also able to return our students to extracurricular activities largely due to their ability to require the participants and spectators to wear masks or other face coverings. By doing so, they were able to give their students some semblance of normalcy during this time.

HB 1323 is clearly a reaction to the public health requirements and recommendations issued during the COVID-19 pandemic; however, HB 1323 is written so broadly that it would impact a political subdivision's ability to put in place and maintain necessary health and safety protocols for its staff. For example, a district could not require its custodial staff to wear a face covering when handling hazardous materials or chemicals. In addition, due to its breadth, HB 1323 would likely prohibit our districts from requiring its facilities crew to wear personal protective equipment when operating machinery.

Simply put, HB 1323 would significantly reduce a school district's ability to provide a safe and healthy learning environment for its students and workplace for its staff, which all schools are obligated by law to do. NDSBA strongly encourages the committee to issue a DO NOT PASS recommendation on HB 1323. Thank you for your time. I would be happy to answer any questions the committee may have.

Where Have We Come With Face-Masks?

#11177



Hierarchy of Epidemiologic Study Design

Laboratory Experiments

Generate Hypotheses

Case reports

Case series

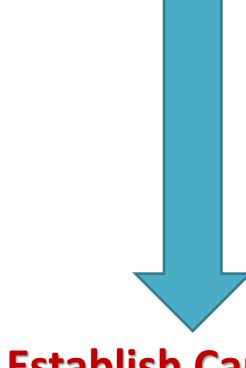
Ecologic studies

Cross-sectional studies

Case-control studies

Cohort studies

Randomized controlled trials



Establish Causality

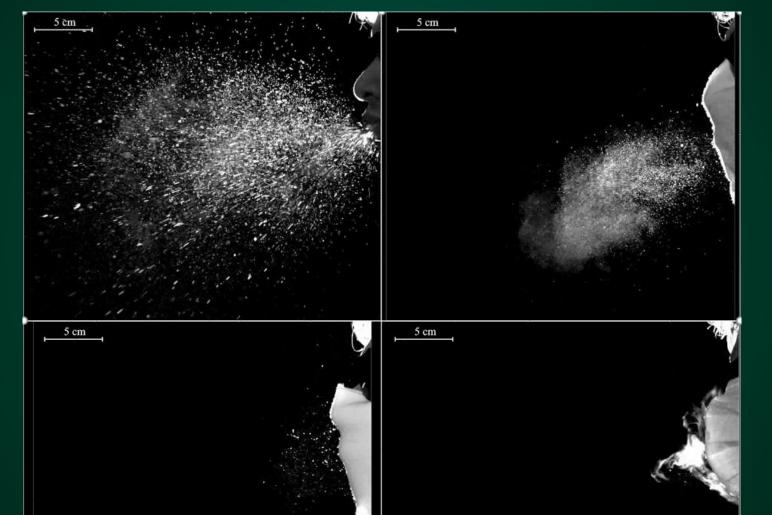
Table. Studies of the Effect of Mask Wearing on SARS-CoV-2 Infection Risk^a

Source	Location	Population studied	Intervention	Outcome		
Hendrix et al	Hair salon in Springfield, Missouri	139 Patrons at a salon with 2 infected and symptomatic stylists	Universal mask wearing in salon (by local ordinance and company policy)	No COVID-19 infections among 67 patrons who were available for follow-up		
Payne et al	USS Theodore Roosevelt, Guam	382 US Navy service members	Self-reported mask wearing	Mask wearing reduced risk of infection by 70% (unadjusted odds ratio, 0.30 [95% CI, 0.17-0.52])		
Wang Y et al	Households in Beijing, China	124 Households of diagnosed cases comprising 335 people	Self-reported mask wearing by index cases or ≥1 household member prior to index case's diagnosis	Mask wearing reduced risk of secondary infection by 79% (adjusted odds ratio, 0.21 [95% CI, 0.06-0.79])		
Doung-ngern et al	Bangkok, Thailand	839 Close contacts of 211 index cases	Self-reported mask wearing by contact at time of high-risk exposure to case	Always having used a mask reduced infection risk by 77% (adjusted odds ratio, 0.23 [95% CI, 0.09-0.60])		
Gallaway et al	Arizona	State population	Mandatory mask wearing in public	Temporal association between institution of mask wearing policy and subsequent decline in new diagnoses		
Rader et al	US	374 021 Persons who completed web-based surveys	Self-reported mask wearing in grocery stores and in the homes of family or friends	A 10% increase in mask wearing tripled the likelihood of stopping community transmission (adjusted odds ratio, 3.53 [95% CI, 2.03-6.43])		
Wang X et al	Boston, Massachusetts	9850 Health care workers (HCWs)	Universal masking of HCWs and patients in the Mass General Brigham health care system	Estimated weekly decline in new diagnoses among HCWs of 3.4% after full implementation of the mask wearing policy		
Mitze et al	Jena (Thuringia), Germany	City population aged ≥15 y	Mandatory mask wearing in public spaces (eg, public transport, shops)	Estimated daily decline in new diagnoses of 1.32% after implementation of the mask mandate		
Van Dyke et al	Kansas	State population	Mandatory mask wearing in public spaces	Estimated case rate per 100 000 persons decreased by 0.08 in counties with mask mandates but increased by 0.11 in those without		
Lyu and Wehby	15 US states and Washington, DC	State populations	Mandatory mask wearing in public	Estimated overall initial daily decline in new diagnoses of 0.9% grew to 2.0% at 21 days following mandates		
Karaivanov et al	Canada	Country population	Mandatory mask wearing indoors	Estimated weekly 25%-40% decline in new diagnoses following mask mandates		
^a See the Supplement for the complete table.						

^a See the Supplement for the complete table.

Effect of Varying Masks on Emission of Respiratory Droplets During Sneeze

No Mask



Single Layer Cloth

Double Layer Cloth Surgical Mask



Compelling Case Report #1





- Flew from Wuhan to Guangzhou, then 15 hr flight to Toronto
- Early symptoms and coughing the entire flight



- Wife developed cough next day after landing.
 Both tested +
- 350 passengers
 - 25 within 6'
- NO TRANSMISSIONS
- Masked the entire flight

Compelling Case Report #2 - MO Hairdressers



- 2 hairdressers worked after starting to have symptoms for 5-8 days. Tested (+)
- Exposed 139 clients, all followed, 67 tested
- All were masked throughout encounters per city ordinance
- NO TRANSMISSIONS

MMWR. ePub: 14 July 2020

% Positivity in HCWs After Universal Masking

Figure. Temporal Trend in Percentage Positivity of SARS-CoV-2 Testing Among HCWs

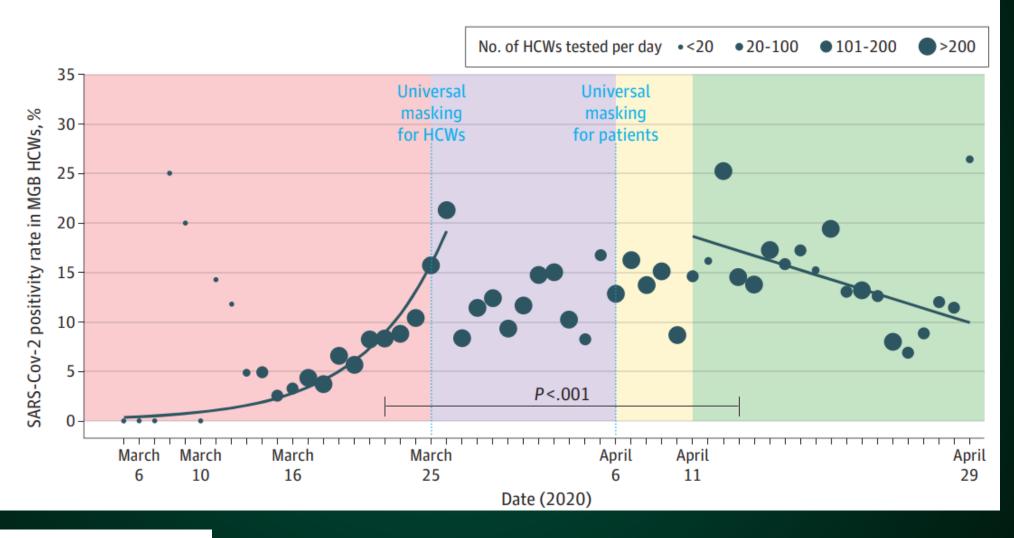
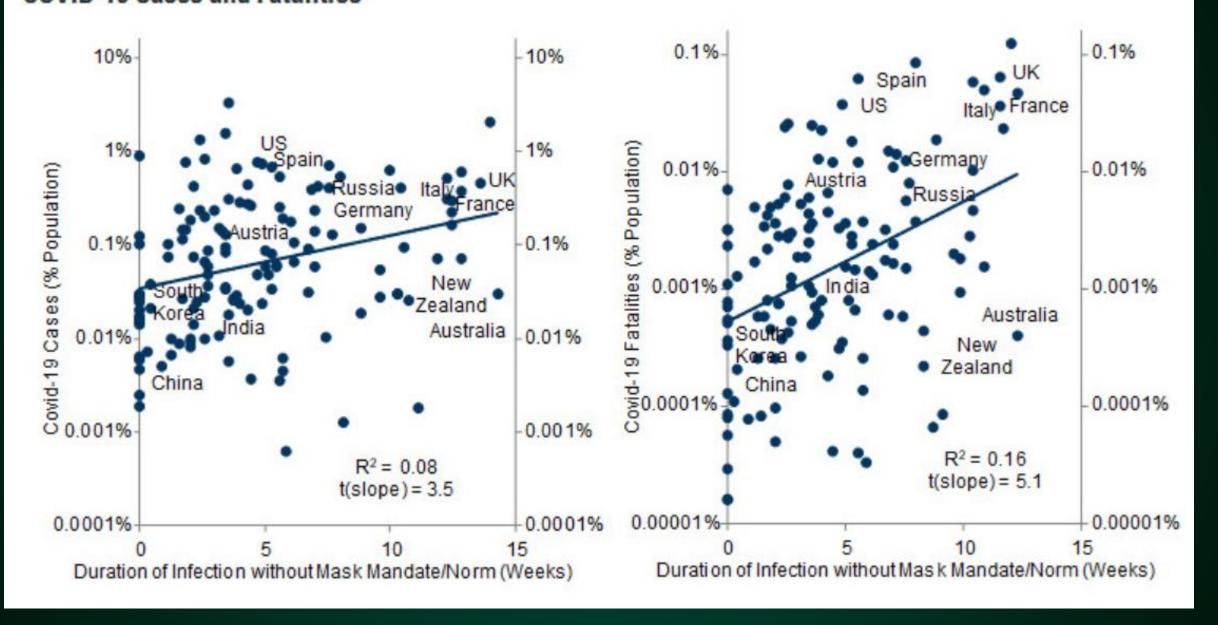
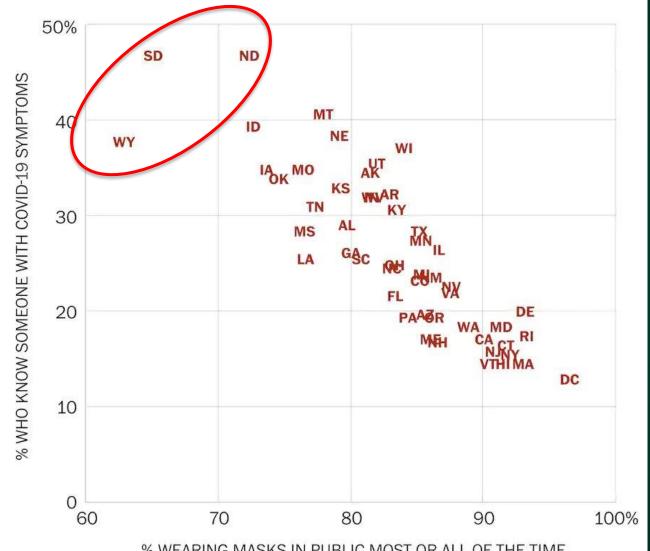


Exhibit 6: Countries Which Took Longer to Reach Widespread Mask Usage Experienced More COVID-19 Cases and Fatalities



Masking up

Fewer covid-19 symptoms reported in states with higher rates of mask use (data as of October 19, 2020)

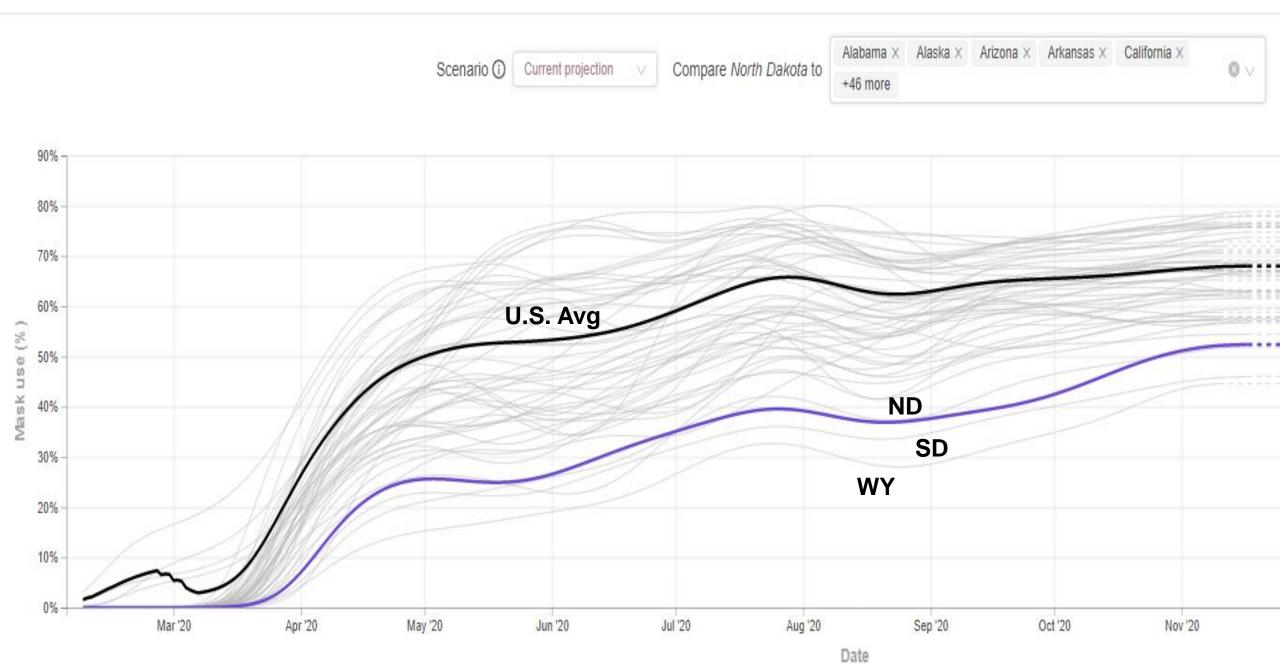


% WEARING MASKS IN PUBLIC MOST OR ALL OF THE TIME

Source: Delphi COVIDCast, Carnegie Mellon University

THE WASHINGTON POST

Mask Use



Outbreak on the USS Theodore Roosevelt: Evidence of Protecting the Wearer



- Overall, 28% of 4779 crew became infected
- Medical dept staff had lower attack rate (16.7%)
 despite more frequent contact (regular use of PPE)
- Later assessment of subset of 382 at Guam base found 60% were antibody positive
 - 70% lower likelihood if self-reported regular mask use

Retrospective Cohort Study of Risk Factors for Secondary Household Transmission

≥ 1 member masked before sx onset in index
 - (no benefit if after sxs)

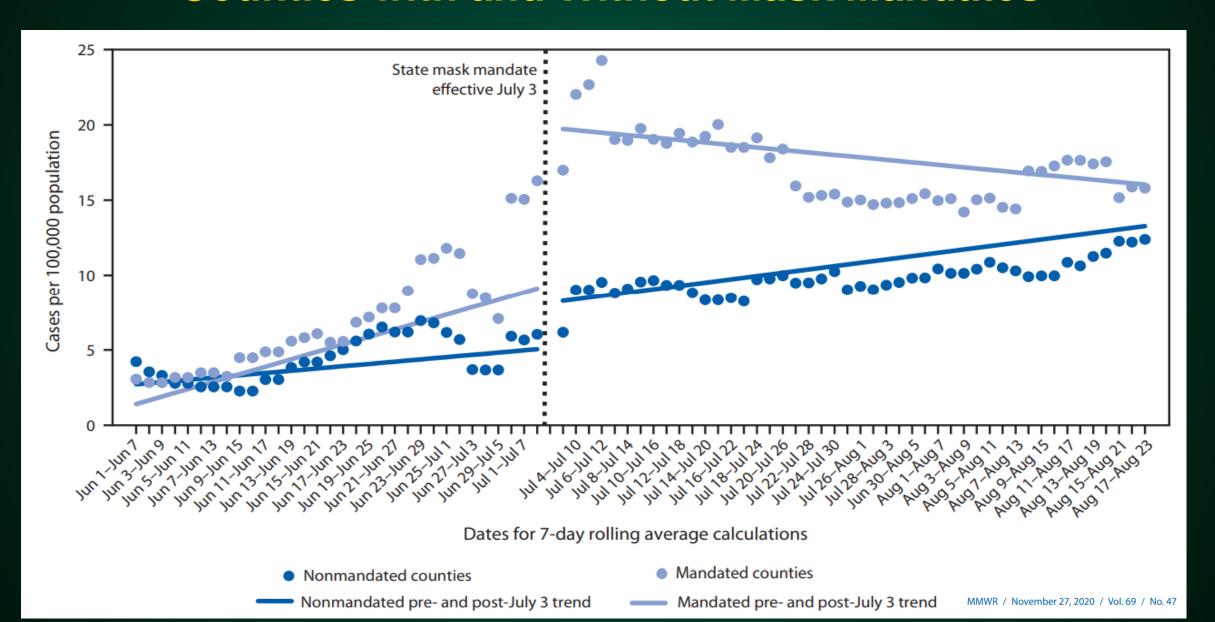
79% 1

41 households with 20 transmission 83 households with no 20 transmisson

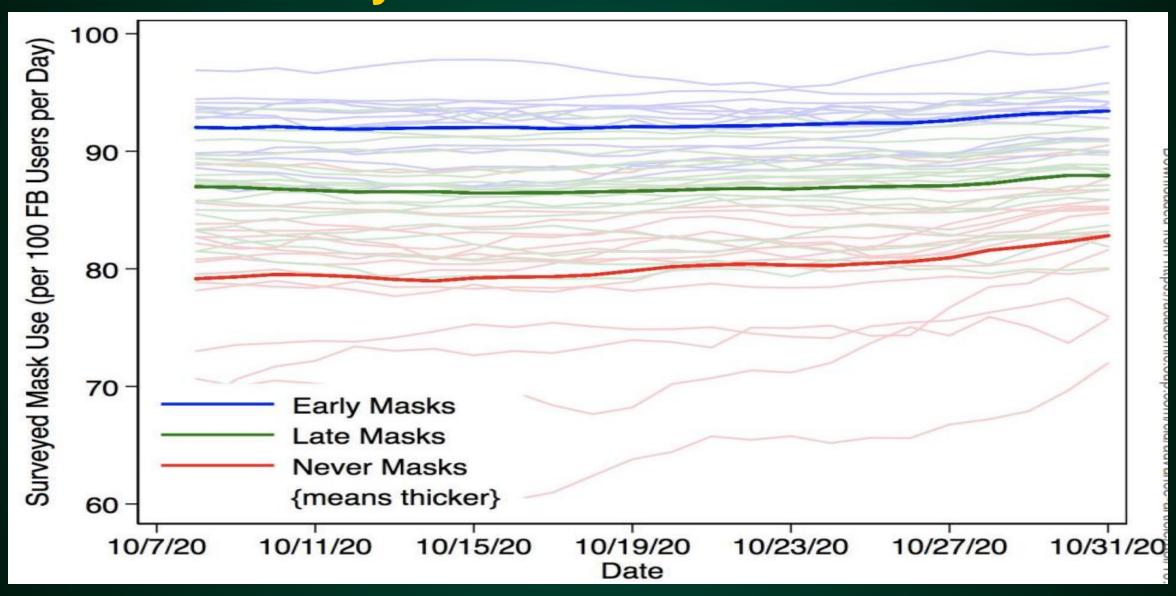


What About Mandates?

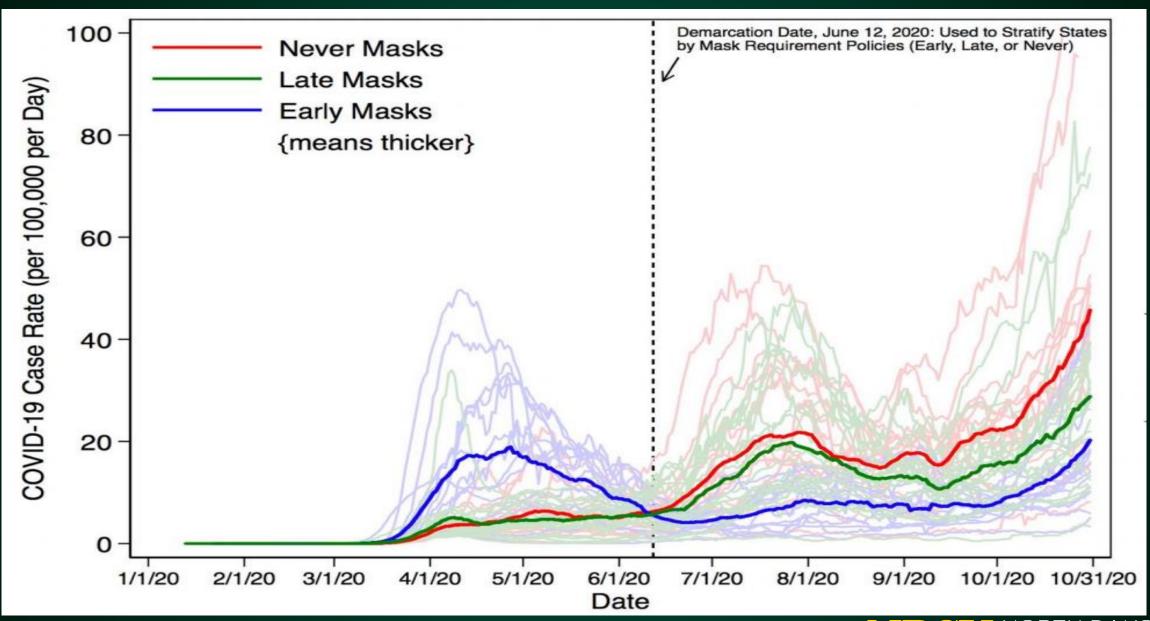
Incidence of New Cases in Kansas Counties with and Without Mask Mandates



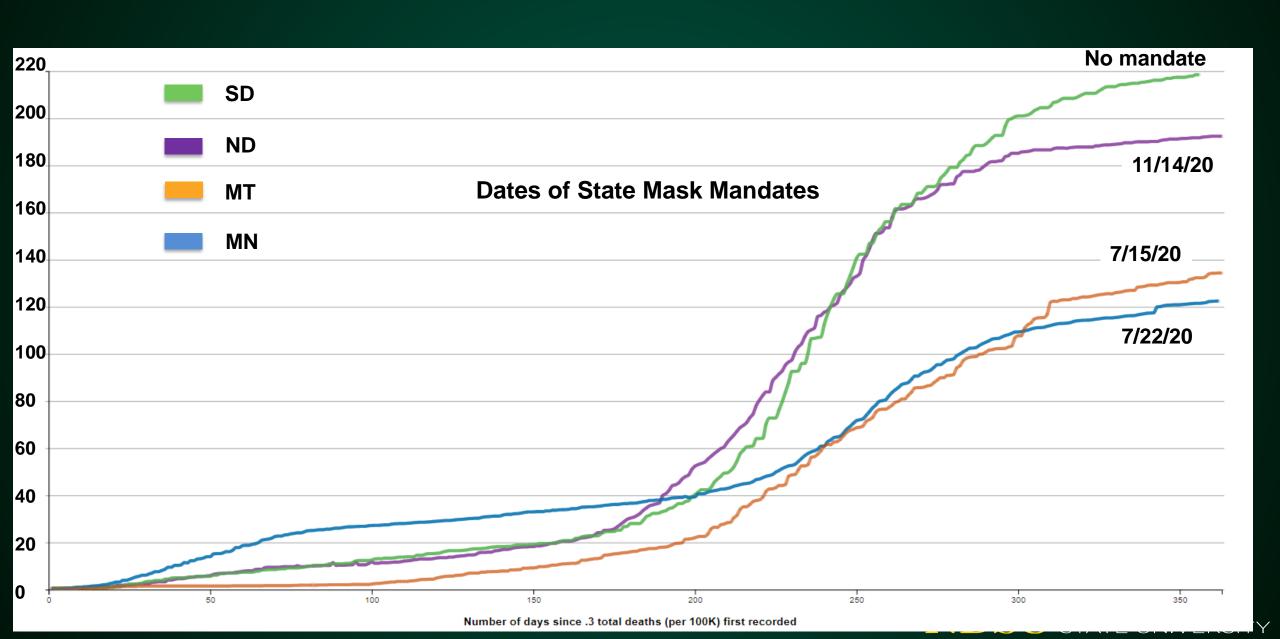
Higher Mask Usage Associated with Early State Mask Mandates



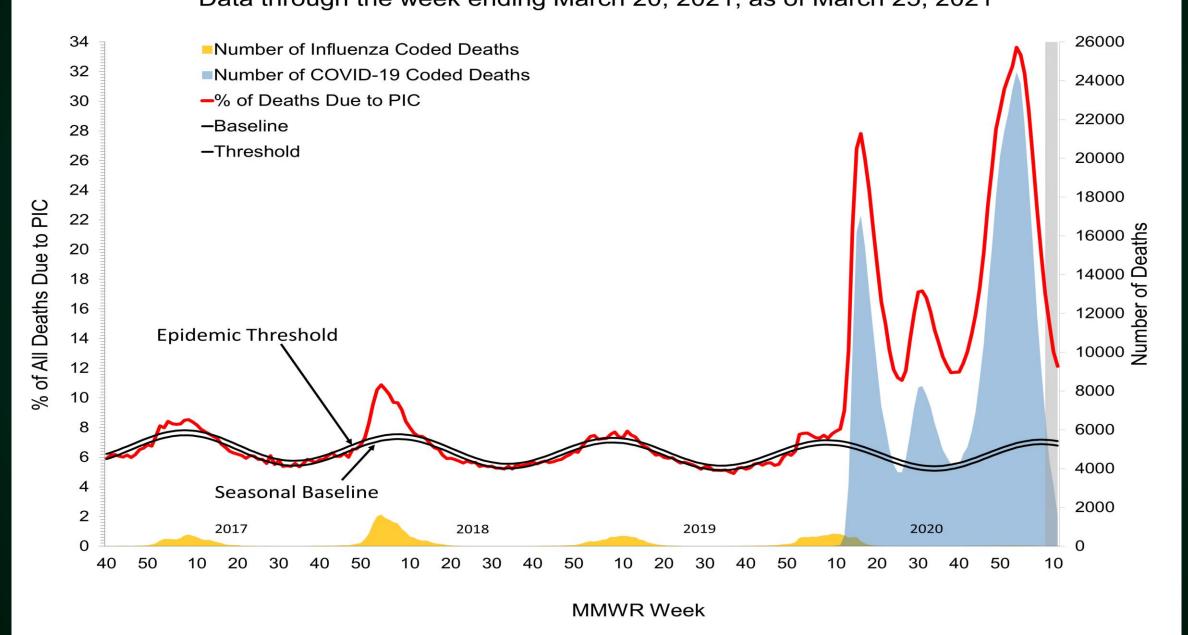
States With Early Mask Adoption Associated with Lower Case Rates



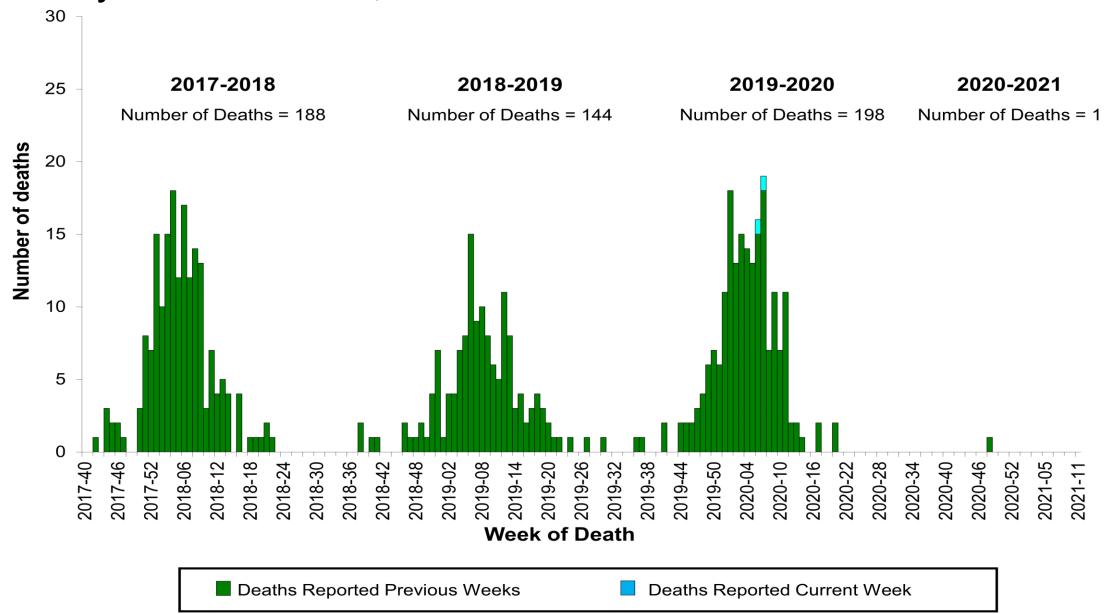
Cumulative Death Rates/100k in ND, SD, MT, MN



Pneumonia, Influenza, and COVID-19 Mortality from the National Center for Health Statistics Mortality Surveillance System Data through the week ending March 20, 2021, as of March 25, 2021



Influenza-Associated Pediatric Deaths by Week of Death, 2017-2018 season to 2020-2021 season



Is Wearing a Mask an Excessive Burden or Potentially Bad for You?







A doctor runs 22 miles in a face mask to prove that they are safe



By Amanda Jackson, CNN

① Updated 1:32 PM ET, Sun August 9, 2020





Dr. Tom Lawton wore a three-layered cloth mask during two runs, totaling 22 miles.

Masking Effects on CO₂ or O₂ Levels



- 15 healthy residents and 15 veterans with severe COPD
- Oxygen and Carbon dioxide levels at baseline, 5 min after mask, 30 min after a mask, and 6 min after walk test
- No significant change in either group

Inability to **Ever Issue a Mask Mandate?**

Pathogen	Case-Fatality Rate
COVID-19	0.7 – 2.3%
SARS	12%
MERS	35%
Ebola	57%
Avian Influenza (H5N1)	60%

Clinical Review & Education #11178

JAMA Insights

Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2

John T. Brooks, MD; Jay C. Butler, MD

Prior to the coronavirus disease 2019 (COVID-19) pandemic, the efficacy of community mask wearing to reduce the spread of respiratory infections was controversial because there were no solid relevant data to support their use. During the pandemic, the scientific evidence has increased. Compelling data now demonstrate that community mask wearing is an effective nonpharmacologic intervention to reduce the spread of this infection, especially as source control to prevent spread from infected persons, but also as protection to reduce wearers' exposure to infection.

COVID-19 spreads primarily through respiratory droplets exhaled when infected people breathe, talk, cough, sneeze, or sing. Most of these droplets are smaller than 10 µm in diameter, often referred to as *aerosols*. The amount of small droplets and particles in-



Multimedia



Supplemental content

creases with the rate and force of airflow during exhalation (eg, shouting, vigorous exercise). Exposure is greater the closer a person is to the source

of exhalations. Larger droplets fall out of the air rapidly, but small droplets and the dried particles formed from them (ie, droplet nuclei) can remain suspended in the air. In circumstances with poor ventilation, typically indoor enclosed spaces where an infected person is present for an extended period, the concentrations of these small droplets and particles can build sufficiently to transmit infection.

Community mask wearing substantially reduces transmission of se $vere\,acute\,respiratory\,syndrome\,coronavirus\,2\,(SARS-CoV-2)\,in\,2\,ways.$ First, masks prevent infected persons from exposing others to SARS-CoV-2 by blocking exhalation of virus-containing droplets into the air (termed source control). This aspect of mask wearing is especially important because it is estimated that at least 50% or more of transmissions are from persons who never develop symptoms or those who are in the presymptomatic phase of COVID-19 illness. ¹ In recent laboratory experiments, multilayer cloth masks were more effective than singlelayer masks, blocking as much as 50% to 70% of exhaled small droplets and particles.^{2,3} In some cases, cloth masks have performed similar to surgical or procedure masks for source control. Second, masks protect uninfected wearers. Masks form a barrier to large respiratory droplets that could land on exposed mucous membranes of the eye, nose, and mouth. Masks can also partially filter out small droplets and particles from inhaled air. Multiple layers of fabric and fabrics with higher thread counts improve filtration. However, the observed effectiveness of cloth masks to protect the wearer is lower than their effectiveness for source control,³ and the filtration capacity of cloth masks can be highly dependent on design, fit, and materials used. Standards for cloth masks are needed to help consumers select marketed products.

Epidemiological investigations have helped quantify the benefit of mask wearing to prevent the spread of SARS-CoV-2 (Table; Supplement). At a hair salon in which all staff and clients were required to wear a mask under local ordinance and company policy, 2 symptomatic, infected stylists attended to 139 clients and no infections were observed in the 67 clients who were reached for interviewing and testing. During a COVID-19 outbreak on the USS Theodore Roosevelt,

persons who wore masks experienced a 70% lower risk of testing positive for SARS-CoV-2 infection. 4 Similar reductions have been reported in case contact investigations when contacts were masked 5 and in household clusters in which household members were masked. 6

An increasing number of ecological studies have also provided persuasive evidence that universal mandatory mask wearing policies have been associated with reductions in the number or rate of infections and deaths (Table). These studies did not distinguish the types of masks (cloth, surgical, or N95) used in the community. This association is strengthened because, in many cases, other mitigation strategies (eg, school and workplace closures, recommendations for social distancing, hand hygiene) had already been deployed before enactment of mask wearing policies, after which the reductions were observed. A study that examined changes in growth rates for infections in 15 states and the District of Columbia before and after mask mandates showed that rates were growing before the mandates were enacted and slowed significantly after, with greater benefit the longer the mandates had been in place.⁷

Wearing a mask can become uncomfortable, particularly for long periods in warm environments, and covering the nose and mouth may inhibit verbal and nonverbal communication, particularly for children and deaf individuals. However, children aged 7 to 13 years have been shown to be able to make accurate inferences about the emotions of others with partially covered faces, ⁸ and the US Food and Drug Administration recently approved a transparent surgical mask that may be useful in such circumstances. Concerns about reduced oxygen saturation and carbon dioxide retention when wearing a mask have not been supported by available data. ⁹

The overall community benefit of wearing masks derives from their combined ability to limit both exhalation and inhalation of infectious virus. Similar to the principle of herd immunity for vaccination, the greater the extent to which the intervention-mask wearing in this case—is adopted by the community, the larger the benefit to each individual member. The prevalence of mask use in the community may be of greater importance than the type of mask worn. It merits noting that a recent study has been improperly characterized by some sources as showing that cloth or surgical masks offer no benefit. This randomized trial in Denmark was designed to detect at least a 50% reduction in risk for persons wearing surgical masks. Findings were inconclusive, 10 most likely because the actual reduction in exposure these masks provided for the wearer was lower. More importantly, the study was far too small (ie, enrolled about 0.1% of the population) to assess the community benefit achieved when wearer protection is combined with reduced source transmission from mask wearers to others.

During past national crises, persons in the US have willingly united and endured temporary sacrifices for the common good. Recovery of the nation from the COVID-19 pandemic requires the combined efforts of families, friends, and neighbors working together in unified public health action. When masks are worn and combined with other recommended mitigation measures, they protect not only the wearer but also the greater community. Recommendations for masks will likely

Table. Studies of the Effect of Mask Wearing on SARS-CoV-2 Infection Risk^a

Source	Location	Population studied	Intervention	Outcome
Hendrix et al	Hair salon in Springfield, Missouri	139 Patrons at a salon with 2 infected and symptomatic stylists	Universal mask wearing in salon (by local ordinance and company policy)	No COVID-19 infections among 67 patrons who were available for follow-up
Payne et al	USS Theodore Roosevelt, Guam	382 US Navy service members	Self-reported mask wearing	Mask wearing reduced risk of infection by 70% (unadjusted odds ratio, 0.30 [95% CI, 0.17-0.52])
Wang Y et al	Households in Beijing, China	124 Households of diagnosed cases comprising 335 people	Self-reported mask wearing by index cases or ≥1 household member prior to index case's diagnosis	Mask wearing reduced risk of secondary infection by 79% (adjusted odds ratio, 0.21 [95% CI, 0.06-0.79])
Doung-ngern et al	Bangkok, Thailand	839 Close contacts of 211 index cases	Self-reported mask wearing by contact at time of high-risk exposure to case	Always having used a mask reduced infection risk by 77% (adjusted odds ratio, 0.23 [95% CI, 0.09-0.60])
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Van Dyke et al	Kansas	State population	Mandatory mask wearing in public spaces	Estimated case rate per 100 000 persons decreased by 0.08 in counties with mask mandates but increased by 0.11 in those without
Lyu and Wehby	15 US states and Washington, DC	State populations	Mandatory mask wearing in public	Estimated overall initial daily decline in new diagnoses of 0.9% grew to 2.0% at 21 days following mandates
Karaivanov et al	Canada	Country population	Mandatory mask wearing indoors	Estimated weekly 25%-40% decline in new diagnoses following mask mandates

^a See the Supplement for the complete table.

change as more is learned about various mask types and as the pandemic evolves. With the emergence of more transmissible SARS-CoV-2 variants, it is even more important to adopt widespread mask

wearing as well as to redouble efforts with use of all other nonpharmaceutical prevention measures until effective levels of vaccination are achieved nationally.

ARTICLE INFORMATION

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Published Online: February 10, 2021. doi:10.1001/jama.2021.1505

Correction: This article was corrected on February 22, 2021, to correct a typo indicating that there were solid relevant data to support community mask wearing to reduce the spread of respiratory infections before the pandemic. This typo has been corrected.

Conflict of Interest Disclosures: None reported.

Additional Information: The science summarized in this article is reviewed in greater detail with a full set of references on the Centers for Disease Control and Prevention's COVID-19 website Scientific Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2 (https://www.cdc.gov/coronavirus/2019-ncov/more/masking-sciencesars-cov2.html). This website and a public slide deck will be updated periodically.

REFERENCES

- 1. Johansson MA, Quandelacy TM, Kada S, et al. SARS-CoV-2 transmission from people without COVID-19 symptoms. *JAMA Netw Open*. 2021;4(1): e2035057.
- 2. Lindsley WG, Blachere FM, Law BF, Beezhold DH, Noti JD. Efficacy of face masks, neck gaiters and face shields for reducing the expulsion of simulated cough-generated aerosols. *Aerosol Sci Technol*. Published online January 7, 2021. doi:10.1080/02786826.2020.1862409
- 3. Ueki H, Furusawa Y, Iwatsuki-Horimoto K, et al. Effectiveness of face masks in preventing airborne transmission of SARS-CoV-2. *mSphere*. 2020;5 (5):e00637-20. doi:10.1128/mSphere.00637-20
- **4.** Payne DC, Smith-Jeffcoat SE, Nowak G, et al; CDC COVID-19 Surge Laboratory Group. SARS-CoV-2 infections and serologic responses from a sample of U.S. Navy Service Members: USS Theodore Roosevelt, April 2020. *MMWR Morb Mortal Wkly Rep.* 2020;69(23):714-721.
- **5.** Doung-Ngern P, Suphanchaimat R, Panjangampatthana A, et al. Case-control study of use of personal protective measures and risk for SARS-CoV 2 Infection, Thailand. *Emerg Infect Dis*. 2020;26(11):2607-2616. doi:10.3201/eid2611.203003

- **6.** Wang Y, Tian H, Zhang L, et al. Reduction of secondary transmission of SARS-CoV-2 in households by face mask use, disinfection and social distancing: a cohort study in Beijing, China. *BMJ Glob Health*. 2020;5(5):e002794.
- 7. Lyu W, Wehby GL. Community use of face masks and COVID-19: evidence from a natural experiment of state mandates in the US. *Health Aff (Millwood)*. 2020;39(8):1419-1425.
- **8**. Ruba AL, Pollak SD. Children's emotion inferences from masked faces: Implications for social interactions during COVID-19. *PLoS One*. 2020;15(12):e0243708.
- **9**. Samannan R, Holt G, Calderon-Candelario R, Mirsaeidi M, Campos M. Effect of face masks on gas exchange in healthy persons and patients with COPD. *Ann Am Thorac Soc.* Published online October 2, 2020. doi:10.1513/AnnalsATS.202007-812RL
- 10. Bundgaard H, Bundgaard JS, Raaschou-Pedersen DET, et al. Effectiveness of adding a mask recommendation to other public health measures to prevent SARS-CoV-2 infection in danish mask wearers: a randomized controlled trial. *Ann Intern Med.* Published online November 18, 2020. doi:10.7326/M20-6817

SENATE POLITICAL SUBDIVISIONS COMMITTEE SENATOR RANDY A. BURCKHARD, CHAIRMAN APRIL 1, 2021

JOHN J. HAGAN, MD, STATE CORRECTIONAL HEALTH AUTHORITY NORTH DAKOTA DEPARTMENT OF CORRECTIONS & REHABILITATION PRESENTING TESTIMONY IN OPPOSITION TO HOUSE BILL 1323

My name is John Hagan, and I am the Correctional Health Authority for the North Dakota Department of Corrections and Rehabilitation (DOCR). I am here to testify on behalf of the DOCR in opposition to House Bill 1323.

House Bill 1323 prohibits a state or local official, the state, or any political subdivision from mandating the use of a face mask, face shield, or any other face covering. The bill further prevents the use of a face mask, shield, or covering as a condition for entry, education, employment, or services.

Across the US, jails and prisons have suffered high rates of illness and death due to COVID-19 compared to their surrounding communities. DOCR residents are at high risk of developing COVID-19 illness due to close quarters living conditions, congregate sleeping conditions, group dining in dining halls, group classroom and treatment group models, and shared recreation spaces. DOCR residents are also at higher risk of severe illness and death when they do develop COVID-19 pneumonia due to high rates of hypertension, heart disease, diabetes, chronic hepatitis C and HIV.

The DOCR successfully uses several strategies to mitigate the spread of COVID-19 within DOCR facilities. All DOCR staff wear personal protective equipment continuously while on site, including masks, eye protection, and gloves. These are provided by the DOCR. Fit testing of respirators has been performed for all staff members likely to work with patients known or suspected of having COVID infection. Residents are cohorted together in small groups to minimize risk of cross-infection, and all residents wear a mask whenever they leave their cell. Classes and treatment meetings have been adapted to virtual meetings or small groups. Residents assist in frequent cleaning with bleach, and they have access to hand sanitizer. Surveillance testing of all staff and residents is performed on a regular basis, and any individual who is symptomatic is quarantined and tested immediately. In short, everyone at DOCR works hard every day to control the spread of this illness.

The appropriate use of masks has been central to the DOCR's success in protecting the health and well-being of staff and residents. The DOCR COVID mitigation program is supported by strong scientific evidence. OSHA FIT testing of 12 different types of consumer-grade and improvised masks proves that these masks have a 25% to 80% filtration efficiency for reducing passage of virus-sized aerosol droplets (Clapp et al, JAMA Internal Medicine 2020). A recent review of more than a dozen published studies demonstrates that community mask-wearing substantially reduces the transmission of the virus that causes COVID-19 infection (Brooks & Butler, JAMA 2021).

Removing the DOCR's ability to require appropriate mask use in DOCR facilities will lead to predictable increase in the rates of illness and death among staff and residents and may even impact the broader community. For example, in Joliet, Illinois, a prison outbreak overwhelmed community hospital resources, which prevented the hospitals from addressing emergent situations among those in the community. This risk applies not only in COVID infection, but also in tuberculosis infection, which is common in prison.

Because the State of North Dakota is required to provide necessary healthcare, increases in illness among residents directly leads to increased costs in caring for

residents. Additionally, prisons have an established legal duty to protect residents in their facilities and masks are a standard mitigation practice implemented in prisons across the county. If DOCR is forced to allow individuals to live, work, and visit DOCR facilities without masks, it is opening itself up to expensive lawsuits and possibly large legal liability.

Lastly, preventing the DOCR from enforcing appropriate mask and face shield usage will cause certain injury to our residents who train in our vocational programs, including carpentry and welding, and who work in Rough Rider Industries, our prison manufacturing enterprise. Many of the participants in these programs have long sentences. Again, because the DOCR must provide necessary healthcare, it will lead not only to increases in short-term medical costs, but also increases in long-term DOCR medical costs as these individuals.

Chairman Burckhard and members of the committee, I ask you to oppose this bill.

I thank you for your time and attention.

References:

Brooks, J. T., & Butler, J. C. (2021). Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2. *JAMA: The Journal of the American Medical Association*. https://doi.org/10.1001/jama.2021.1505

Clapp, P. W., Sickbert-Bennett, E. E., Samet, J. M., Berntsen, J., Zeman, K. L., Anderson, D. J., Weber, D. J., Bennett, W. D., & US Centers for Disease Control and Prevention Epicenters Program. (2020). Evaluation of Cloth Masks and Modified Procedure Masks as Personal Protective Equipment for the Public During the COVID-19 Pandemic. *JAMA Internal Medicine*. https://doi.org/10.1001/jamainternmed.2020.8168

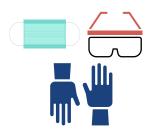


HB 1323 - Limitations on mask wearing requirements

BACKGROUND

Across the US, jails and prisons have suffered high rates of illness and death due to COVID-19 compared to their surrounding communities. ND DOCR residents are at high risk of developing COVID-19 illness due to close quarters living conditions, congregate sleeping conditions, group dining in dining halls, group classroom and treatment group models and shared recreation spaces. Our residents are also at higher risk of severe illness and death when they do develop COVID-19 pneumonia due to high rates of hypertension, heart disease, diabetes, chronic hepatitis C and HIV.

CURRENTIY



All our team members wear DOCRprovided personal protective equipment continuously while on site, including masks, eye protection and gloves



Fit testing of respirators has been performed for all team members likely to work with patients known or suspected of having COVID infection



Residents are cohorted together in small groups to minimize risk of cross-infection and all residents wear a mask whenever they leave their cell.



Classes and treatment meetings have been adapted to virtual meetings or small groups.

IMPACTS

Removing the ability of the DOCR to require appropriate mask use in our facilities will harm our residents and our staff.



Lead to a predictable increase of illness, including COVID-19 and tuberculosis, and possibly death not only among residents, but our team members and potentially the broader community



Increases in illness among residents directly leads to increased costs in caring for residents. If DOCR is forced to allow individuals to live, work, and visit DOCR facilities without masks, it is opening itself up to expensive lawsuits and possibly large legal liability.



Lead to injury in vocational programs (such as carpentry and welding) and workers at Rough Rider Industries

The appropriate use of masks has been central to our success in protecting the health and well-being of our staff and our residents. The DOCR COVID mitigation program is supported by strong scientific evidence. OSHA FIT testing of 12 different types of consumer-grade and improvised masks proves that these masks have a 25% to 80% filtration efficiency for reducing passage of virus-sized aerosol droplets (Clapp et al, JAMA Internal Medicine 2020). A recent review of more than a dozen published studies demonstrates that community mask-wearing substantially reduces the transmission of the virus that causes COVID-19 infection (Brooks & Butler, JAMA 2021).



HB 1323 - Limitations on mask wearing requirements



(2)			
loops (54% recycled nylon, 43% an optional aluminum nose bric bandana folded diagonally once	s study included a 2-layer nylon mask with e is nylon, 3% spandes), tested with and with loge and filter insert in place (A), a cotton to "bandit" sylve (B), a cotton bandara folided to the instructions presented by the US Surg	sut spandex) with ties (D), a polypropyler single-layer gaiter/lneck cover balaclar in a spandex) (F), and a 3-layer cotton ma	va bandana (92% polyester and 8%
esearch Original Investigation		uation of Cloth Masks and Modified Procedur	e Masks as Personal Protective Equipment
Medical procedure mask	Tied ear loops and tucked in side pleats	C 3-D-printed ear guard	
Claw-type hair clip	Three ganged rubber bands	F Segment of nylon hosiery	
		2	A medical procedure musil with ear loops (A) was modified by bring the ear loops and fusing in the side plants (B), attaching ear loops to a 3-dimensional-printed "ear guard" (C), fusterning ear loops with a 23-mm could be completed to the plants of the water's head (D), placing a ring of 3 garged musiber bands over the mask and around the wearer's ears (E), and siding a 30 lock-segment of rylyon hosiery over the fitted procedure mask (P).

Consumer-grade face masks	Condition	% FFE (SD) ^a	
2-Layer nylon mask with ear loops			
Without aluminum nose bridge	New	44.7 (6.4)	
With aluminum nose bridge	New	56.3 (6.5)	
With aluminum nose bridge and 1 insert	New	74.4 (4.8)	
With aluminum nose bridge, washed (no insert)	Washed 1 time	79.0 (4.3)	
Cotton bandana			
Folded surgeon general style	New	49.9 (5.8)	
Folded "bandit" style	New	49.0 (6.2)	
Single-layer polyester gaiter/neck cover (balaclava bandana)	New	37.8 (5.2)	
Single-layer polyester/nylon mask with ties	New	39.3 (7.2)	
Polypropylene mask with fixed ear loops	New	28.6 (13.9)	
3-Layer cotton mask with ear loops	New	26.5 (10.5)	
Medical face masks and modifications			
3M 9210 NIOSH-approved N95 respirator	New	98.4 (0.5)	
Surgical mask with ties	New	71.5 (5.5)	
Procedure mask with ear loops	New	38.5 (11.2)	
Procedure mask with ear loops			
Loops tied and corners tucked in	New	60.3 (11.1)	
Ear guard	New	61.7 (6.5)	
23-mm Claw hair clip	New	64.8 (5.1)	
Fix-the-mask (3 rubber bands)	New	78.2 (3.3)	
Nylon hosiery sleeve	New	80.2 (3.1)	

Evaluation of Cloth Masks and Modified Procedure Masks as Personal Protective Equipment for the Public During the COVID-19 Pandemic – Clapp et al. JAMA Internal Med 2020



HB 1323 - Limitations on mask wearing requirements

Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2.

Source	Location	Population studied	Intervention	Outcome
Hendrix et al	Hair salon in Springfield, Missouri	139 Patrons at a salon with 2 infected and symptomatic stylists	Universal mask wearing in salon (by local ordinance and company policy)	No COVID-19 infections among 67 patrons who were available for follow-up
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Brooks & Butler. JAMA 2021



House Bill 1323 Senate Human Services Committee April 1, 2021, 8:30 a.m.

Good Morning Chairman Burckhard and members of the Senate Political Subdivisions Committee. My name is Kirby Kruger and I am the Section Chief for the Disease Control and Forensic Pathology Section with the North Dakota Department of Health. I am here today in opposition of HB 1323.

House bill 1323 will eliminate any government or business entity from implementing any mask mandates of any kind. This is a sweeping bill that will result in negative consequences for public health, the medical and health care communities, schools and businesses.

This bill, if passed will:

- Limit public health options for preventing respiratory diseases by removing mandated masking as an option,
- Impact schools which are using masking to help ensure children are able to learn in-person,
- Hinder health care systems' ability to protect patients, residents and employees from diseases that can be prevented with the use of masks and
- Remove freedom from private businesses by not allowing them make choices that protect their employees and their customers. This bill may even prohibit policies that are needed to protect employees from occupational hazards associated with various industries.

The list of prevention and intervention strategies public health officials have to mitigate infectious disease threats is relatively short, especially for viral pathogens. We often need to rely on tried and true mitigations, many hundreds of years old, such as isolation, quarantine, social distancing and masking. Other strategies such as vaccines and curative medications or other therapies may not exist or may take so long to develop that an unmitigated virus could emerge and cause a pandemic.

New pathogens have and will continue to emerge. Every year human cases of variant influenza viruses are identified. Although sustained person to person

transmission generally does not occur, the concern is that a variant influenza virus may acquire the ability to be easily spread from person to person.

Since 2003, three new coronaviruses and one new human influenza virus have emerged.

- 2003 SARS CoV
 - SARS had a case fatality rate of about 10%
- 2012 MERS CoV
 - MERS has a case fatality rate of 35%
- 2019 SARS-CoV-2.
 - o In the U.S., COVID-19 has a case fatality rate of about 1.8%
- 2009 H1N1
 - o had a low case fatality rate but affected younger adults more than other seasonal influenza viruses.

During the 20th century, three new pandemic influenza viruses emerged.

- The 1918 H1N1 virus
- The 1957 H2N2 virus
- The 1968 H3N2 virus

These seven viruses are all spread via the respiratory route in which masking may have been or is known to be effective in reducing viral transmission.

I would like to talk briefly about the current situation with COVID-19. COVID-19 cases first emerged at the end of 2019 in Asia. In North Dakota, cases rose sharply this last fall and peaked in November. This increase in cases brought surges in deaths and hospitalizations which stressed our medical and long term care communities as they struggled with maintaining adequate personnel and finding staffed beds for patients. Although we experienced a downturn in case reports and test positivity since our peak in November, we are still in the middle of this pandemic. SARS-CoV-2 continues to circulate and remains unpredictable. Case counts and active cases have begun to increase in North Dakota and in many other states. Five new variants have been identified as variants of concern because they are more infectious, they may not respond to current therapies, or they may have higher case fatality rates. Three of these five variants have been identified in North Dakota. It is difficult to predict what other new variants may emerge and what that means for transmission and

illness severity among people. We need to remain diligent as this pandemic is truly a dynamic event. Furthermore we need to be able to respond quickly if there is a resurgence of cases or there is a change to illness severity, mortality, or if previous immunity is shown to no longer be protective. We need mitigations tools that can be rapidly implemented and then discontinued in response to an outbreak.

Masking helps prevent of a wide variety of respiratory illnesses. A more local example of a respiratory disease outbreak where masking is important is the tuberculosis (TB) outbreak in Grand Forks County identified first in 2012. We have over 40 cases of infectious TB in this outbreak, which spans several years. Cases related to this outbreak have been reported as recently as 2020. Multiple age groups have been impacted. Early in the outbreak we struggled with compliance with several of these cases and local public health needed to issue orders for compliance with public health recommendations. Among the orders were the requirement for masking when leaving isolation to attend medical appointments.

In summary, masking is a standard disease prevention mitigation that protects people from a wide variety of respiratory illness. The emergence of new pathogens will continue to occur and therefore we have to be prepared to respond to these events. To respond effectively we will need have all of our disease prevention tools in our tool box, which will help prevent the spread of these pathogens and to reduce illness, hospitalizations and deaths. Hospitals, other care facilities, schools and businesses also need to be able to implement prevention strategies to protect their patients, residents, staff, employees and customers from illness.

I urge this committee to give this bill a do not pass recommendation. I appreciate the opportunity to present today and would be happy to take questions.

Testimony in Opposition to HB 1323

Mr. Chairman and members of the committee. My name is Stephen McDonough. I worked as a pediatrician in North Dakota for 40 years including 15 at the North Dakota Department of Health. In 1989, I authored a book on 100 years of public health. I am here in opposition to HB 1323 which is one of the worst pieces of public health legislation in our 131-year history. This bill should be called "North Dakota doesn't give a darn about grandmas and grandpas."

Let us remember where we were just a few months ago, in October and November, when our state had the highest COVID death rate in the world for most of two months, when outside public health experts said this was "what could be expected in a war torn county." Nearly 500 (499) North Dakotans alone died in the month of November and by the end of the year our state had the 4th highest cumulative death rate in the US and 14 of our counties had death rates higher than New York City, most of these were rural counties. During most of 2020, North Dakota had the third lowest mask use and very poor social distancing when the emphasis was on "personal responsibility."

What happened in our state was the result of a "light touch of government." North Dakotans living in our 39 rural counties were 2x as likely to die of COVID as the average American by 12/31/20. Tragically, 846 North Dakotans died in long term care from COVID last year, or 62 percent of our deaths compared to 38 percent nationally. North Dakota had the third lowest rate of mask use and 4th highest death rate long term care COVID deaths, not by accident! North Dakota was unable to prevent an overwhelmed health care system and was unsuccessful with the Vulnerable Population Protection (VP3) Plan.

I believe I was the first physician in North Dakota to call for a statewide mask mandate which I did on August 12 in a letter to the editor to the Bismarck Tribune. It was obvious to me that we were heading for a horrific disaster with the rise in cases which occurred this past summer. However, it was not until my fifth attempt (KXMB-TV August 30, Fargo Forum September 2, Fargo Forum September 20), a letter to the editor to the Fargo Forum on October 12, that things began to change. If a mask mandate had been be implemented on September 1, I estimate that 658 deaths could have been prevented in September, October and November.

There is no questions that masks have saved hundreds of lives in North Dakota and mask mandates have been very effective. Unfortunately, North Dakota was months too late in having a mask mandate. Minnesota (July 25, 2020) and Montana (July 15, 2020) have done a much better job in saving the lives of their grandma and grandpas than did North Dakota and South Dakota. Mask mandates are a proven public health strategy in reducing COVID transmission² and they were supported by Dr. Deborah Birx, the White House coronavirus response coordinator in the Trump administration who observed on October 26 that Bismarck had the worst mask wearing of any of the 38 states she had visited.³⁴

¹ https://www.usatoday.com/story/news/health/2020/11/14/covid-19-north-south-dakota-masks-kristinoem/6237635002/

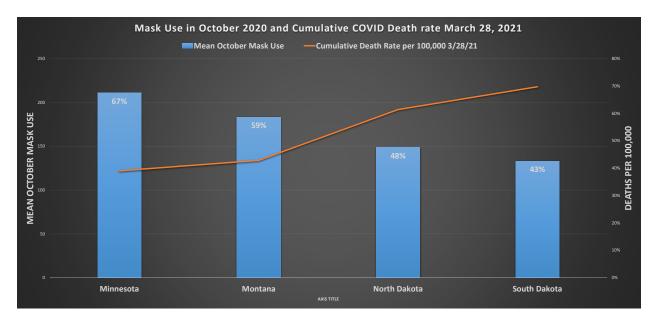
²https://www.cdc.gov/mmwr/volumes/69/wr/mm6947e2.htm#:~:text=The%20governor%20of%20Kansas%20issued,81%20counties%20without%20mask%20mandates.

³ https://www.duluthnewstribune.com/newsmd/coronavirus/6734268-White-House-COVID-19-doctor-clashes-with-North-Dakota-governor-on-mask-mandate

⁴ https://www.kxnet.com/news/local-news/top-white-house-health-official-says-bismarcks-virus-protocols-the-worst-shes-seen/

There is a direct relationship between mask use and saving lives. Of the four states in the north central US, Minnesota has by far the best mask use and lowest death rate. Minnesota's cumulative COVID death rate per 100,000 of 122 is substantially below the national death rate of 164 per 100,000 (CDC). So is Montana's of 134 but not North Dakota's of 192 or South Dakota's of 218. One of the main reasons is mask use. The following chart and table shows that mask use in October (University of Washington) during the height of the pandemic is inversely related to cumulative death rates. If North Dakota's death rate was the same as Minnesota's, 533 more North Dakotans would be alive today.

	Mean	Cumulative
State	October	Death Rate
	Mask	per 100,000
	Use	3/28/21
Minnesota	67%	122
Montana	59%	134
North Dakota	48%	192
South Dakota	43%	218

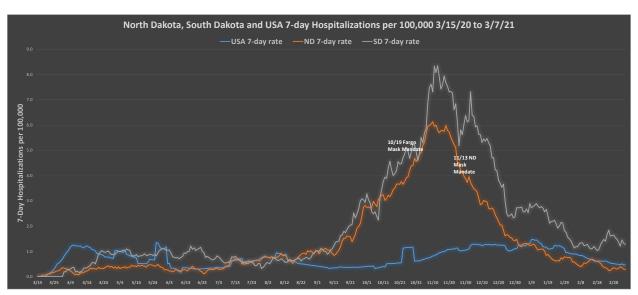


The anti-mask leaders proclaim that only 1.4 percent of those infected with COVID die so why should they wear a mask. That ignorant and selfish statement belies the fact that COVID was overall 14 times as deadly in North Dakota. When the anti-maskers get an infection and spread to others, including staff in the nursing homes, then it isn't as funny anymore. The COVID case fatality rate North Dakota's nursing homes was 26 percent or 260 times as deadly as average influenza. That is right, 1 out of four grandmas and grandpas in nursing homes infected with COVID died a horrible death, smothered by pneumonia witnessed by hundreds physicians and thousands of nurses and therapists, often without family present. Of course, not all counties were equally affected. In Emmons County, which had the highest case rate in the US and therefore the world in late September, COVID was 31 times as deadly as influenza. In Ward County, where nearly 70 percent of the 191 deaths were in long-term-care, COVID was 20 times as deadly as influenza.

The problem with mask mandates in North Dakota was that they were implemented late in the pandemic when health care facilities were overwhelmed. They were not started in time to prevent the nursing home deaths in the late summer and fall nor the preceding widespread transmission in young adults during the summer and early fall. Like most of North Dakota's public health strategy, our state was constantly chasing the virus, getter further and further behind until contact tracing became overwhelmed and abandoned for 2 months during the pandemic's peak. It was not until mask mandates were implemented that things turned around.

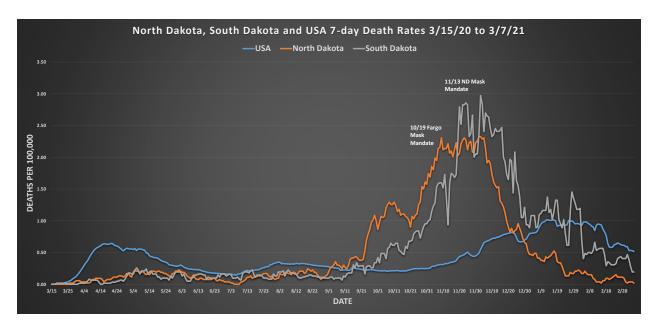
Fargo has been a leader in mask use and saving lives in our state. Cass County's cumulative death rate of 108.8 as of March 28, 2021, was lower than even Minnesota's! This is remarkable considering that Fargo was hit early on with nursing home deaths in the spring of 2020. Cass County's low death rate has been due to better mask use and social distancing than the rest of North Dakota.

I compared North Dakota's, South Dakota's and USA's 7-day hospitalizations and death rates per 100,000. I estimate 1040 hospitalizations were saved in North Dakota by mask mandates over 3 months from December 1, 2020 to March 7, 2021.



Hosp	Total					
Year	Year 2020 2021 2021					
Month	Month December January February					
North Dakota	548	216	101	865		
South Dakota	2124					

I estimate 421 deaths were saved in North Dakota by mask mandates over 3 months from December 1, 2020 to March 7, 2021.



Deaths per Month				Total
Year	2020	2021	2021	
Month	December	January	February	
North Dakota	282	76	21	379
South Dakota	542	290	110	942

South Dakota continues to struggle with 11.0% positivity, 91 people hospitalized, 2293 active cases and 1933 deaths compared to North Dakota's 3.93% positivity, 18 currently hospitalized, 921 active cases and 1466 deaths on March 29, 2021. In the case you need more information about the horrific South Dakota experiment, please consider this: on February 15, the Sioux Falls Argus Leader reported that the entire body of the South Dakota House of Representatives was considered a close contact for COVID. More than 30 South Dakota lawmakers were now known to have or have had COVID-19.⁵

A study in Utah showed consumer spending improves with countywide mask mandates compared to counties without mask mandates but a statewide mask mandate was associated with even more consumer spending. In time of a pandemic, a statewide mask mandate is good for the economy. So it appears that a statewide mask mandate is the real way to "save lives and livelihood!" The right way for a truly "Smart Restart."

North Dakota mask mandates were supported by the majority of North Dakotans. The North Dakota Newspaper Association found 60 percent of North Dakotans supported a statewide mask mandate when asked in the first half of November. In that survey, 24 percent knew someone who had died of COVID.⁷ To my knowledge, these are some of the mask mandates and strategies implemented in North Dakota:

⁵ https://www.argusleader.com/story/news/2021/02/15/south-dakota-legislature-house-representatives-considered-close-contacts-positive-covid-cases/6750396002/

⁶ https://coronavirus.utah.gov/impact-of-masks-on-the-economy/

⁷ https://bismarcktribune.com/news/local/health/quarter-of-north-dakotans-know-someone-who-has-died-of-covid-19/article_8b95bb6a-669a-50fd-aa1c-233210384686.html

Date	Locality	Issuing Authority
July 24, 2020	Spirit Lake Reservation	Tribal Chairman
July 31, 2020	Turtle Mountain Reservation	Tribal Council
October 19, 2020	Fargo	Fargo Mayor
October 20, 2020	Minot	Minot City Council 5-2 vote
October 21, 2020	West Fargo	City Commission 4-1 vote
October 21, 2020	Valley City	Mayor, Commission 4-1 Nov 6
October 22, 2020	Three Affiliated Tribes	Tribal Chairman
October 26, 2020	Devils Lake	City Commission unanimous
October 26, 2020	Grand Forks	City Council 7-0 vote
October 27, 2020	Standing Rock Reservation	Tribal Chairman
October 27, 2020	Bismarck	Bismarck City Commission 3-2
October 28, 2020	Jamestown	Jamestown Mayor
November 2, 2020	Rugby	City Council 5-4 vote
November 2, 2020	New Rockford	City Commission
November 9, 2020	Williston	Williston Mayor
November 10, 2020	Mandan	City Commission 3-2 vote
November 12, 2021	Jamestown	Jamestown City Council 4-0 vote
November 13, 2021	North Dakota	Governor Burgum

What happened during our mask mandate? On Nov. 13, the day the mandate was announced, North Dakota had the highest death rate in the world and AARP reported that our state had the highest nursing home death rate, the highest nursing home staff infection rate and the highest staff shortage in the US over 4 weeks in September and October. On Jan. 15, the day the end of the mandate was announced, North Dakota had the third lowest case rate the U.S., among the best where we should have been all along. The mask mandate worked wonderfully. Mask use and social distancing improved dramatically and cases, hospitalizations and deaths plummeted. Active cased dropped 85% from 10,173 to 1,513 and hospitalizations dropped 70% from 319 to 95. Deaths have dropped by 86% from an average 16.6 per day in November to 2.2 in January.

The lessons learned from this pandemic should be that a "light touch of government" was a disaster. North Dakota had the third lowest mask use in the United States during the summer and early fall and terrible social distancing. This resulted in North Dakota having the greatest case rate in the United States for over 3 months, the greatest death rate in the world for most of 2 months and devastating spread to North Dakota's nursing homes, many in rural areas, where hundreds and hundreds of our grandmas and grandpas died, nearly 900 (887) all because we did not have a statewide mask mandate until November 13.

The extent of the terror when COVID arrived in our nursing homes will probably never be known. Data from the Centers for Medicare and Medicaid Services (CMS) showed a case fatality rate of 26 percent overall from 80 skilled nursing facilities in North Dakota. Some were hit so hard that 13 nursing homes

⁸ https://states.aarp.org/north-dakota/nursing-home-deaths-increase-11-fold-new-covid-19-analysis-shows#:~:text=The%20state%20saw%20resident%20deaths,monthly%20infections%20climbing%20to%20298

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had cumulative deaths exceeding 30 percent of their occupied beds. Six staff members died. All this came to be from community spread from lack of mask use.

The way we needed to protect our grandmas and grandpas in nursing homes was to protect the staff. The way to protect the staff was to prevent community spread. The way to prevent community spread was a mask mandate. We should have all masked up during the summer. We didn't until October and November and hundreds of our grandmas and grandpas died needlessly.

This legislation is irresponsible, selfish and cruel. It will prevent public officials from protecting their citizens and will prohibit an extraordinarily effective, inexpensive public health intervention that has broad public support and is good for our economy, a mindboggling moronic thing to do.

If you are for masks and mask mandates you are for life, for grandmas and grandpas, for health care providers, families and your own health. If you are not for mask and mask mandates then you are most certainly not for protecting the most vulnerable and our grandmas and grandpas. HB 1323 is an absolutely terrible piece of legislation, one of the worst in the history of our state, and should be soundly defeated.

Thank you for this opportunity to oppose this unbelievably foolish legislation on April Fools' Day. I will be happy to answer any questions.

Appendices

Methodology in estimating lives saved and hospitalizations prevented by North Dakota's mask mandates

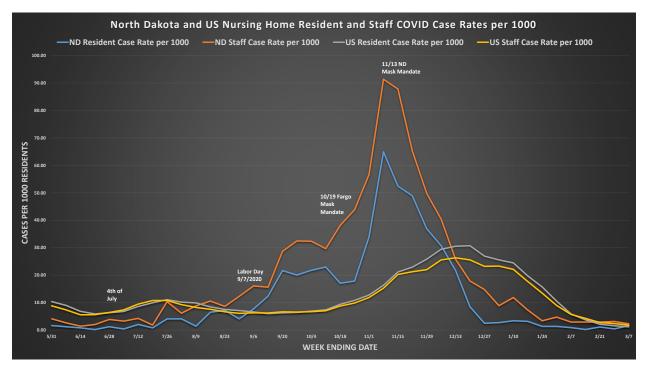
North Dakota's and South Dakota's hospitalizations rates rose in parallel from mid-August until North Dakota's peaked on November 10 at 6.15 while South Dakota's rose to November 13 at 8.35. To compare the impact of North Dakota's community mask mandates beginning on October 19 and statewide mandate on November 13 with South Dakota's lack of a statewide mask mandate, North Dakota's hospitalization rate per day was subtracted from South Dakota's from December 1, 2020 to March 7, 2021. December 1 was chosen as it was 17 days from the North Dakota mask mandate when a decrease in hospitalizations could be expected. Using this analysis, an estimate 1040 hospitalization were saved in North Dakota by mask mandates over 3 months.

North Dakota's death rate rose in late August and began to level off in early November before peaking at 2.32 on December 2 while South Dakota's death rates rose from mid-September until it peaked on December 3 at 2.97. To compare the impact of North Dakota's community mask mandates beginning on October 19 and statewide mandate on November 13 with South Dakota's lack of a statewide mask mandate, North Dakota's death rate per day was subtracted from South Dakota's from December 1, 2020 to March 7. December 1 was chosen as it was 17 days from the North Dakota mask mandate when a decrease in deaths could be expected. Using this analysis, an estimate 421 deaths were saved in North Dakota by mask mandates over 3 months.

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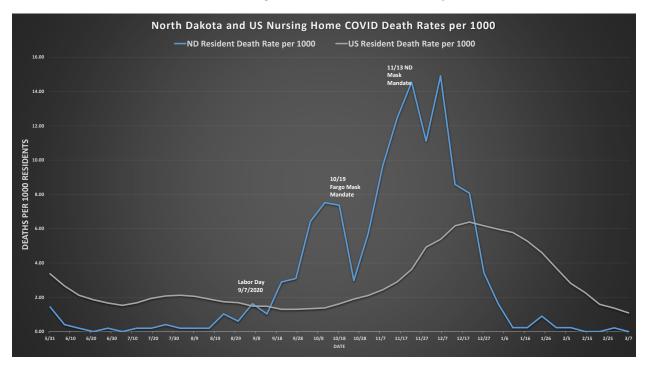
⁹ https://c0dcb948.caspio.com/dp/72678000177588ba3322423c9ee5

North Dakota and US Nursing Home Resident and Staff Case Rate per 1000 Residents



North Dakota skilled nursing home staff cases increased after 4th of July and greatly after Labor Day and preceded skilled nursing home resident cases.¹⁰

North Dakota and US Nursing Home Resident Death Rate per 1000 Residents



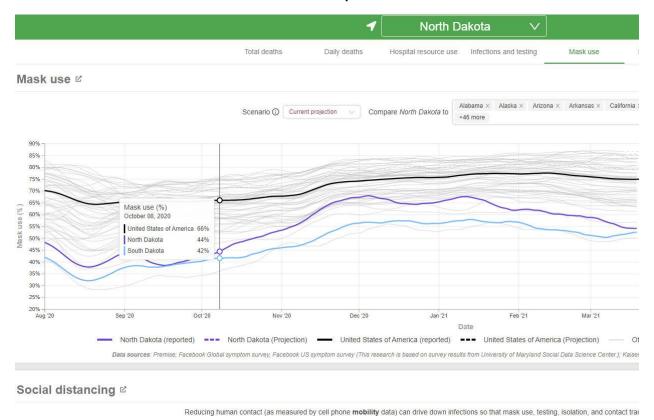
¹⁰ https://www.cdc.gov/nhsn/covid19/ltc-report-overview.html

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North Dakota nursing home deaths increased dramatically after Labor Day and did not come down until mask mandates were implemented. By the end of 2020, North Dakota had the 4th highest nursing home death rate.

		Nursing Home
Ranking	State	Deaths per
		100,000 12/31/20
1	Rhode Island	115.6
2	Connecticut	107.6
3	Massachusetts	106.1
4	North Dakota	100.8
5	New Jersey	83.7
6	South Dakota	69.6
7	Pennsylvania	69.1
8	Illinois	62.4
9	Minnesota	60.2
10	Indiana	57.0

Poor Mask Use in North Dakota improved with Mask Mandates



Rank County Population		T				Total				Times
Part Population Populatio			2019		Deaths by		% Greater	•	% Deaths	
	Rank	County		rural mostly				Mar 29		
Dickey			population	urban	iviai 25 2021	•	tilali 00	2021	per cuse	•
Foster	1	Dickey	4,872	rural	32	656.8	400.5%	763	4.19%	
4	2	Pierce	3,975	mostly urban	25	628.9	383.5%	531	4.71%	47.1
Forward Color Co	3	Foster	3,210	rural	19	591.9	360.9%	571	3.33%	33.3
Feb Nelson 2,879 rural 14	4	Renville	2,327	rural	13	558.7	340.6%	313	4.15%	41.5
To Logan 1,850 rural 8	5	Towner	2,189	rural	11	502.5	306.4%	302	3.64%	36.4
B	6	Nelson	2,879	rural	14	486.3	296.5%	460	3.04%	30.4
9	7	Logan	1,850	rural	8	432.4	263.7%	223	3.59%	35.9
10 Emmons 3,241 rural 13 401.1 244.6% 410 3.17% 31.7	8	LaMoure	4,046	rural	17	420.2	256.2%	505	3.37%	33.7
11 McHenry 5.745 rural 22 382.9 233.5% 614 3.58% 33.8 12 Stutsman 20,704 mostly urban 79 381.6 22.7% 332.5 2.38% 22.8 13 Ransom 5.218 rural 17 325.8 198.7% 631 2.69% 26.9 14 Bottineau 6.282 rural 20 318.4 194.1% 704 2.84% 28.4 15 McLean 9,450 rural 30 317.5 193.6% 1236 2.43% 24.3 16 Morton 31,364 mostly urban 98 312.5 190.5% 5005 1.96% 19.6 17 Grant 2,274 rural 7 307.8 187.7% 190 3.68% 36.8 18 Barnes 10,415 mostly urban 31 297.6 181.5% 1324 2.34% 23.4 19 Ward 67,641 mostly urban 192 283.9 173.1% 9349 2.05% 20.5 20 McIntosh 2,497 rural 7 280.3 170.9% 326 2.15% 21.5 21 Benson 6,832 rural 18 263.5 160.7% 1035 1.74% 17.4 22 Eddy 2,287 rural 6 262.4 160.0% 461 1.30% 13.0 23 Ramsey 11519 mostly urban 30 260.4 158.8% 1657 1.81% 18.1 24 Sioux 4,230 rural 11 260.0 158.6% 642 1.71% 17.1 25 Walsh 10,641 mostly urban 187 225.5 137.5% 1790 1.34% 13.4 26 Traill 8,036 rural 8 208.7 127.2% 437 1.83% 18.3 27 Wells 3,834 rural 8 208.7 127.2% 437 1.83% 18.3 28 Rolette 14,176 rural 5 165.3 100.8% 400 1.25% 12.5 29 Burleigh 95,626 mostly urban 187 195.6 119.2% 14868 1.26% 12.5 30 Bowman 3,024 rural 5 165.3 100.8% 400 1.25% 12.5 31 Pembina 6,801 rural 11 161.2 98.3% 1283 1.33% 13.3 33 Hettinger 2,499 rural 4 160.1 98.3% 1283 1.33% 13.3 33 Hettinger 3,762 rural 5 165.3 100.8% 400 1.25% 12.5 40 Cavalier 3,762 rural 5 165.3 100.8% 400 1.25% 12.5 41 Golden Valley 1,761 rural 2 152.1 29.3% 437 1.41% 14.1 42 Mountrail 10,545 rural 5 165.3 100.8% 400 1.25% 1.25% 1.24% 43 G	9	Kidder	2,480	rural	10	403.2	245.9%	258	3.88%	38.8
12 Stutsman 20,704 mostly urban 79 381.6 232.7% 3325 2.38% 23.8 13 Ransom 521.8 rural 17 325.8 193.7% 631 2.69% 26.9 14 Bottineau 6,282 rural 20 318.4 194.1% 704 2.84% 28.4 15 McLean 9,450 rural 30 317.5 193.6% 1236 2.43% 24.3 16 Morton 31.364 mostly urban 98 312.5 190.5% 5005 1.96% 19.6 17 Grant 2,274 rural 7 307.8 187.7% 190 3.68% 36.8 18 Barnes 10,415 mostly urban 31 297.6 181.5% 1324 2.34% 32.4 19 Ward 67,641 mostly urban 192 283.9 173.1% 9349 2.05% 20.5 20 McIntosh 2,497 rural 7 280.3 170.9% 326 2.15% 21.5 21 Benson 6,832 rural 18 263.5 160.7% 1035 1.74% 17.4 22 Eddy 2,287 rural 6 262.4 160.0% 461 1.30% 13.0 23 Ramsey 11519 mostly urban 30 260.4 188.8% 1657 1.81% 181.1 24 Sioux 4,230 rural 11 260.0 158.6% 642 1.71% 17.1 25 Walsh 10,641 mostly rural 24 225.5 137.5% 1790 1.34% 13.4 26 Traill 8,036 rural 18 224.0 136.6% 642 1.71% 17.1 27 Wells 3,834 rural 8 208.7 127.2% 437 1.83% 18.3 28 Rolette 14,176 rural 28 197.5 120.4% 2132 1.31% 13.1 29 Burleigh 95,626 mostly urban 30 265.4 100.6 1.79% 1.79% 1.79 27 Wells 3,834 rural 8 208.7 127.2% 437 1.83% 18.3 33 Hettinger 2,499 rural 18 224.0 136.6% 642 1.71% 1.71 32 Mountrall 10,545 rural 5 165.3 100.8% 400 1.25% 12.5 30 Bowman 3,024 rural 5 165.3 100.8% 400 1.25% 12.5 31 Pembina 6,801 rural 7 158.2 96.5% 369 1.90% 19.0 35 Supent 3,898 rural 6 153.9 93.9% 437 1.37% 1.3	10	Emmons	3,241	rural	13	401.1	244.6%	410	3.17%	31.7
13	11	McHenry	5,745	rural	22	382.9	233.5%	614	3.58%	35.8
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Testimony to the **Senate Political Subdivisions Committee** April 1, 2021 Chad Peterson, Cass County Commission Chair

Regarding: House Bill 1323

Chairman Burckhard and members of the Senate Political Subdivisions Committee, I am Chad Peterson, Cass County Commission Chair, and I am writing to request a **DO NOT PASS** for House Bill 1323. I appreciate and share the desire to protect individual freedoms and liberties. As public servants, this is one of our core responsibilities. I also appreciate the responsibility to protect both public and staff health.

First, over the last year the COVID-19 pandemic has forced federal, state, and local governments to balance individual freedoms and liberties with public health in ways never encountered before. In Cass County we took several steps, beginning in March & April 2020 to protect the health & welfare of county employees and citizens doing business with the County. In May, in response to the clear and direct messaging from employees, members of the public as well as federal, state, and local public health experts, we added a mask requirement. In October, as the numbers of cases and hospitalizations in North Dakota increased, Cass County amended the mask requirement directing employees to wear masks whenever they were not alone at their workspace. Neither the initial mask requirement or the revised policy were implemented lightly. We understood there was, out of a preponderance of caution, the ability to provide potential protection to ourselves, our co-workers and fellow citizens — as well as the parents, grandparents and medically fragile friends and relatives our employees and citizens care for away from the workplace. Had it been in effect, House Bill 1323 would have prevented the county from adding the mask requirement.

Second, House Bill 1323 is so broadly written it would prevent the use items like 'spit shields' (also known as 'spit masks') in places like the Cass County jail. These items are used if an inmate is trying to bite or spit on a deputy or inmate. These items keep our corrections officers and other inmates safe from any number of potential diseases that can be spread via bodily fluids.

Finally, House Bill 1323 is so broadly written it would prevent the mandatory use of using masks or face/ eye protection required when members of our vector control (i.e. mosquito control) or weed control staff when utilizing potentially harmful chemicals. An example of this would be an item like respirator masks that is sometimes required to keep our team safe from inhaling harmful vapors. Should the person opt to not use them for whatever reason they could get ill and, as odd as it may sound, the county could potentially be held as liable.

Again, I urge a **DO NOT PASS** for House Bill 1323. Local control allows local leaders to make decisions in the best interest of our coworkers and constituents regarding any number of matters and these decisions should remain at that level. I would be available for any questions.

Senate Political Subdivisions Committee on HB1323

April 1, 2021

Translational considerations across infectious disease public health matters into political subdivisions in this pandemic have been a great difficulty for all involved. I would like to propose a simple addendum to the committee regarding HB1323. If section 1 had an additional line of clarification, I believe it would help both camps here in deliberations. The needs of society for freedom of economic activity and gatherings without prohibitions/requirements of social distances as well as public safety needs can be met by this bill with a simple addendum of language.

The problem with the societal debate on the umbrella term of face coverings, is that there are major distinctions between respirators and anything less protective than fitted N95/N99 respirators that we use in medicine when dealing with the ongoing pandemic of tuberculosis. Tb has long met the criteria for a pandemic and has great similarities as well as differences well summarized here in one of the world's top medical journals:

https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30151-X/fulltext

Greg Poland, MD from Mayo Clinic summarized quite nicely last year the importance of N95 respirators, but at the time due to supply chain concerns, felt their use should be restricted to medical professionals. https://newsnetwork.mayoclinic.org/discussion/covid-19-mayo-clinic-expert-answersquestions-about-masks-after-cdc-updates-its-recommendation/

There is an obvious political dividing line in the Great Plains playing out right in HB1323. This is a fuzzy line in the sand but basically relates to the amount of rain available annually for farming. West of the 100th meridian is too dry for farming and the sunsets tend to be prettier for all the dust in the air as many of us out west can confirm to our eastern Great Plains city friends and family.

There is a major reason for this beauty which paradoxically creates some risks to pulmonary health. Dust particulates, including erionite (similar to asbestos) filter evening sunlight into incredible deep reds. Dust levels in the last 3 days in Bismarck remind us of Dust Bowl conditions. The dust hazards out west should prompt considerations for N95/N99 respirators for our first responders and really all North Dakotan's overall respiratory health. As our western ND scoria rock adds to the beauty of the sunsets, it also the risks of respiratory illnesses and the government should provide fitted N95/N99 masks to protect us all from these harms especially here in the capitol over the last 3 days.

Furthermore, North Dakota government should be offering fit testing to the public for N95/N99 masks before promoting unproven vaccine technologies that risk "Pathogenic Priming" - which risks our citizens having worse reactions to vaccines with additional strains of COVID19. I CCd the 'lame duck' legislature of the 66th Session regarding such concerns written in an email to one of my fellow UND Faculty Colleagues, Michael LeBeau, MD as appended to the end of this testimony.

In conclusion, I am asking this Committee amend HB1323 such that there is a provision for mandated RESPIRATORS by North Dakota Political Subdivisions wishing the language of HB1323 which forbids mandates for FACEMASKS. By allowing RESPIRATORS to be mandated in preference to poor "technology" of cloth masks, we will avoid worsening the risks of other pulmonary infections by policies that really don't justify the costs. The "return on investments" in cloth and surgical masks as seen all over the parking lots of windy ND should also have a mandated collection biohazard unit at all ND businesses just like insulin needles.

Thank you for our time and consideration together today. Please know that my prior 2/4/21 testimony is available in written and video formats for your further learning/education on these matters,

Edward F. Fogarty, MD Edward Hogarty

To: -Info-Dept. of Health, Michael.LeBeau@SanfordHealth.org < Michael.LeBeau@Sanfordhealth.org >, Cc: Burgum, Doug & 143 more

□ ♦ ♦ → @1~

https://onlinelibrary.wiley.com/doi/epdf/10.1111/ijcp.13795

The cytokine storms of ADE will be difficult to distinguish from CoVID19 itself. Our consents issues to vaccination are rarely as thorough as we have in other areas of research / clinical medicine. For instance, there has never been a disclosure of the lack of need of a vaccine if you are already immune to the disease for which you are being sold a

As you can see, I addressed these the ethical need in the use of diagnostics in medicine within the vaccine industry back in March of 2008 here: https://bismarcktribune.com/news/opinion/mailbag/a-proposal-on-vaccinations/article_e41b2/91-d75/-511d-92d7-eeef199e8/91.html
Folks, that is what I have given the moniker "Ethical Vaccinomics" - if there is anywhere in the world we ought to be more conservative in our use of resources on culture alone, it's ND. There is a lot of over spend by our state on vaccines across the board anyway. Why not be ethical and diagnostically appropriate in our approach?

I also addressed these Ethical Vaccinomics approaches in 2017 with HB1434 testimony:



So we have these matters complicating the pandemic fight and they are matters of great ethical importance

For all of you who understand that there is a racketeering operation between SD and ND that involves Sanford Health and it's use of an outpatient MRI facility between 2012 and 2019 for critical care ICU patients, some of you might find this email interesting in that I am basically scientifically defining and defending Kelby Krabbenhoft here: https://www.twinctities.com/2020/11/19/sanford-health-ceo-i-got-covid-19-so-i-dont-have-to-wear-a-mask-as-a-symbolic-gesture/ I support Kelby's approach here, these masks and lockdowns are psychoneuroimmunologically devastating

The UNIMPEACHABLE best way to treat severe COVID19 with with hyperbaric chambers and maybe it's to the whole ND hospital complex got on board with that, ventilators cannot compete on the grounds of physics with the oxygenation problems of patients with a severe multi-infarct/ischemia producing viral capillary infection. NYU has done the Phase 1 trial and Sanford, CHI, Altru, Trinity and Essentia could use CARES act funding to purchase hyperbaric chambers. The old Bismarck Surgical Associates Building where Sanford is bringing COVID19 patients soon/now is perfectly suited to be a 10-15 monoplace chamber clinic, I am hoping that can occur DURING the pandemic rather

https://pubmed.ncbi.nlm.nih.gov/32931666/

will remind you all we are in a War and I am identifying assets/approaches we can all use to save our fellow citizens from death and prevent the more severe complications of

ned.ncbi.nlm.nih.gov/32708578/

Thank you again for an open mind in these learning endeavors. I believe whole heartedly in my old friend Dr. LeBeau and his abilities to help with the potential of some of the above concepts getting implemented. IV Mucomyst in severe COVID19 is quite simple and I have used it years ago in some of his nephrology patients to protect them from radiological pharmaceuticals which are nephrotoxic when overused by our cardiology colleagues in efforts to save hearts.

Yours in Education,

Edward F. Fogarty, III 800 MUNICH DR Bismarck, North Dako 701-595-1868

https://www.cramer.senate.gov/news/press-releases/president-trump-signs-sen-cramers-hyperbaric-oxygen-therapy-legislation

Dear Dr. Wynne:

I am one who does enjoy Dr. Fogarty's perspective on these SARS-Cov-2 issues. He sometimes gets a little too technical for some of us and holds his opinions very strongly

I never thought he was speaking for UND, just as I do not speak for the whole Senate. He does not even use his UND e mail although we use our ND.gov e mail.

We need to listen to all voices and it is a good idea to be sure we get plenty of oxygen, Vitamin D and enough zinc (😊).

Sincerely,

Howard

Howard C. Anderson Jr., R.Ph. District 8 Senator 2701 7th St NW Turtle Lake ND 58575-9667 Home 701-448-2235 Cell 701-861-9749 Senate 701-328-3373 E mail hcanderson@nd.gov

Committees: Human Services and Political Subdivisions Real Work e mail: ndboph@ndboard.pharmacy

From: Wynne, Joshua <joshua.wynne@und.edu>

Sent: Sunday, December 6, 2020 2:48 PM

doug@nd.gov; Info-Governor's Office <governor@nd.gov; Basson, Marc <marc.basson@und.edu>
Cc: -Info-Dept. of Agriculture <ndda@nd.gov; -Info-State Treasurer doug@nd.gov; heath@nd.gov; Anderson, Jr., Howard C. heath@nd.gov; Bakke, JoNell jbakke@nd.gov; Bekkedahl, Brad bekkedahl@nd.gov; Burckhard, Randall A. <raburckhard@nd.gov>; Clemens, David <dclemens@nd.gov>; Cook, Dwight C. <dcook@nd.gov>; Davison, Kyle <kdavison@nd.gov>; Dever, Dick D. dever@nd.gov; Dotzenrod, Jim A. dever@nd.gov; Dwyer, Mike A. mailto:dever@nd.gov; Dotzenrod, Jim A. dever@nd.gov; Elkin, Jay <<u>jayelkin@nd.gov</u>>; Erbele, Robert S. <<u>rerbele@nd.gov</u>>; Fors, Robert <<u>rfors@nd.gov</u>>; Grabinger, John <<u>jgrabinger@nd</u> Joan M. jang: hogan, Kathy L. jang: hogan, knoighe-nd:gov; Lee, Gary A. jang: hogan, knoighe-nd:gov; Meyer, Scott jang: hogan, knoighe-nd:gov; Meyer, Scott jang: hogan, knoighe-nd:gov; Myrdal, Janne <a href Oban, Erin <eoban@nd.gov>; Oehlke, H. Dave <doehlke@nd.gov>; Patten, Dale <dpatten@nd.gov>; Piepkorn, Merrill \(\text{obstarter} \) (\text{obstarter} \) (\text{o

To: Schmidt, James E. <
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2021 SENATE STANDING COMMITTEE MINUTES

Political Subdivisions Committee

Sakakawea, State Capitol

HB 1323 4/1/2021

A BILL for an Act to create and enact a new section to chapter 23-07 of the North Dakota Century Code, relating to limitations on mask wearing requirements.

Chairman Burckhard opened the discussion on HB 1323 at 3:00 p.m. Members present: Burckhard, Anderson, Lee, Larson, Kannianen, Oban, Heitkamp.

Discussion Topics:

- Proposed amendments
- Governor statewide mask mandate
- State health officer

[2:54] Senator Larson. Provided the committee with an amendment 21.0189.02005 proposed by Senator Bell.

Senator Larson moves to **ADOPT AMENDMENT** 21.0189.02005. **Senator Kannianen** seconded.

Senators	Vote
Senator Randy A. Burckhard	Ν
Senator Howard C. Anderson, Jr.	N
Senator Jason G. Heitkamp	Υ
Senator Jordan Kannianen	Υ
Senator Diane Larson	Υ
Senator Judy Lee	N
Senator Erin Oban	N

The motion failed 3-4-0

[3:19] Kirby Kruger Section Chief, Disease Control Pathology Section. Stood for questions from the committee.

Senator Lee moves DO NOT PASS.

Senator Anderson seconded.

Senators	Vote
Senator Randy A. Burckhard	Υ
Senator Howard C. Anderson, Jr.	Υ
Senator Jason G. Heitkamp	Ν
Senator Jordan Kannianen	Υ
Senator Diane Larson	Υ
Senator Judy Lee	Υ
Senator Erin Oban	Υ

The motion passed 6-1-0

Senator Anderson will carry HB 1343

Senate Political Subdivisions Committee HB 1343 4/1/2021 Page 2

Additional written testimony: N/A

Chairman Burckhard closed the discussion on HB 1323 at 3:25 p.m.

Patricia Lahr, Committee Clerk

Sixty-seventh Legislative Assembly of North Dakota

HOUSE BILL NO. 1323

Introduced by

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Representatives Hoverson, Magrum

Senator O. Larsen

- 1 A BILL for an Act to create and enact a new section to chapter 23-07 of the North Dakota
- 2 Century Code, relating to limitations on mask wearing requirements.

3 BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

4 **SECTION 1.** A new section to chapter 23-07 of the North Dakota Century Code is created and enacted as follows:

Limitations on requirements to wear a mask.

- 1. A state or local elected official, the state, or a political subdivision of the state may not mandate an individual in this state use a face mask, face shield, or other face covering.
- 2. Subsection 1 prohibits making use of a face mask, shield, or covering a condition for entry, education, employment, or services.
- 3. Subsection 1This section applies, notwithstanding authority granted under other provisions of law, including section 23-01-05, section 23-07-06, and chapter 37-17.1.
- 4. If a state or local elected official, the state, or a political subdivision of the state recommends an individual in this state use a face mask, shield, or covering, the official or entity shall provide notice the recommendation is not mandatory.

REPORT OF STANDING COMMITTEE

Module ID: s_stcomrep_31_060

Carrier: Anderson

HB 1323, as engrossed: Political Subdivisions Committee (Sen. Burckhard, Chairman) recommends DO NOT PASS (6 YEAS, 1 NAY, 0 ABSENT AND NOT VOTING). Engrossed HB 1323 was placed on the Fourteenth order on the calendar.