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GW Covid-19 Intelligence Reports: April 27, 2020

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GW Covid-19 Intelligence Report

April 27 through May 2

Prepared by the GW COVID-19 Intelligence Unit

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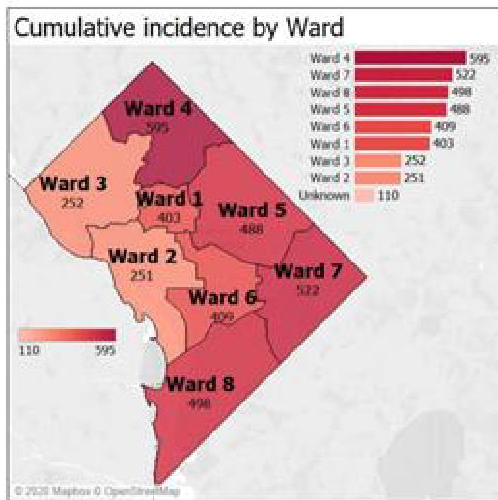
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DC COVID-19 STATS THROUGH APRIL 26



<https://coronavirus.dc.gov/page/coronavirus-data>

From the [Mayor's Presentation on DC's COVID-19 Situational Update of April 24, 2020](#):



	Total Number Positives	Percent
All	3,528	100
Race		
Unknown	490	14
American Indian/Alaska Native	12	-1
Asian	60	2
Black/African American	1762	50
Native Hawaiian/Pacific Islander	7	-1
Other/Multi-Racial	538	15
White	635	18
Refused During Interview	24	1
Ethnicity		
Unknown	705	20
Hispanic or Latinx	636	18
NOT Hispanic or Latinx	2173	62
Refused During Interview	14	-1

Race	Total Lives Lost	Percent
All	153	100
Asian	3	2
Black/African American	124	81
Hispanic/Latinx	9	6
Non-Hispanic White	16	10
Other	1	1

- The Virginia Hospital & Healthcare Association has launched an [online dashboard](#) of currently hospitalized patients with COVID-19, available beds, and other resources.
- The Maryland Emergency Management Agency also maintains a [COVID-19 dashboard](#) based on data released by the Governor's office and the Maryland Department of Health.

THEMES OF THE WEEK

- Professional organizations and States are developing strategies for easing social distancing requirements. Until highly effective new methods of treatment and prevention of COVID-19 are discovered, public health experts recommend a mass investment in testing, contact tracing, outbreak containment, and careful easing of social distancing based on local realities, in order to reduce the risk of mortality from repeat waves of the pandemic.
- Epidemiological and clinical experiences from China, Italy, New York and other early-hit communities are being published to help clinicians diagnose and manage patients.
- Our understanding of pulmonary and vascular pathology in this disease is growing. This includes considerable concern about coagulation abnormalities seen in COVID-19 patients.
- NIH and other health professional organizations are publishing guidelines and recommendations for practice based on these experiences and expert opinion. These are sure to be modified as knowledge accrues.
- Early results of research on the use of various therapeutics are being published. Most are not peer reviewed and few are controlled, so we must interpret them with great caution.
- Serologic testing is a promising strategy for defining the prevalence of asymptomatic infections. However, results must be interpreted cautiously given the current limits on the sensitivity and specificity of the tests, and the absence of knowledge about the level of protective immunity that may be conferred.

CLINICAL KNOWLEDGE

Diagnosics

Title: CDC updates COVID-19 laboratory testing FAQs

Publisher: US Centers for Disease Control and Prevention

Publication: April 21, 2020

URL: <https://www.cdc.gov/coronavirus/2019-ncov/lab/testing-laboratories.html>

Key Takeaway:

- CDC updated and expanded its FAQs on COVID-19 laboratory testing and reporting April 20, 2020. Topics include accessing laboratory testing, data and reporting, serology testing and ordering supplies.

Title: Developing a National Strategy for Serology (Antibody Testing) in the United States

Publisher: Johns Hopkins Center for Health Security

Publication: April 22, 2020

URL: <https://www.centerforhealthsecurity.org/our-work/publications/developing-a-national-strategy-for-serology-antibody-testing-in-the-US>

Key Takeaway:

- Serologic testing has the potential to provide valuable information for public health decision-making when conducted as a complement to molecular testing, and is also in demand from individuals and employers to determine perceived immunity.
- It is imperative to validate the tests as well as provide information about the uncertainties of the results. In addition to the potential for false positive and negative results, important areas of uncertainty that must be addressed through research include how long immunity lasts after infection, and whether that immune response is protective.

Therapeutics

Title: NIAID Covid-19 Treatment Guidelines

Submitted by: US National Institutes of Health

Publication: April 21, 2020 (continuously updated)

URL: <https://covid19treatmentguidelines.nih.gov/>

Key Takeaway:

- At present, no drug has been proven to be safe and effective for treating COVID-19. There continue to be no FDA-approved drugs specifically for COVID-19. These recommendations will be updated frequently as new trial data emerges.
- There are insufficient clinical data to recommend either for or against use of the following: hydroxychloroquine or chloroquine, remdesivir, convalescent plasma, IL-6 inhibitors (e.g. sarilumab, tocilizumab), or IL-1 inhibitors (e.g., anakinra).
- The following should be given only as part of a clinical trial, or avoided: hydroxychloroquine and azithromycin in combination (due to risk of toxicity), lopinavir/ritonavir or other HIV protease inhibitors, interferons, Janus kinase inhibitors.
- Recommendations for critical care, and concomitant medications, are also provided.

Title: Renin-Angiotensin-Aldosterone System Inhibitors in Patients with Covid-19

Publisher: *New England Journal of Medicine*

Publication: April 23, 2020

URL: <https://www.nejm.org/doi/full/10.1056/NEJMsr2005760>

Key Takeaway:

- There are theoretical considerations that ACE inhibitors or ARBs may influence the infectivity of SARS-CoV-2. However, these drugs have established benefits in protecting the kidney and myocardium, and their withdrawal may risk clinical decompensation in high-risk patients. In stable patients with COVID-19 they should be continued.

Title: COVID-19 and Thrombotic or Thromboembolic Disease: Implications for Prevention, Antithrombotic Therapy, and Follow-up

Publisher: *Journal of the American Journal of Cardiology*

Publication: April 15, 2020

URL: <http://www.onlinejacc.org/content/early/2020/04/15/j.jacc.2020.04.031>

Key Takeaway:

- Reports suggest unexpectedly common occurrence of venous thromboembolic disease in patients with severe COVID-19. This review summarizes the current understanding of the pathogenesis, epidemiology, management, and outcomes of this complication.
- Drug-drug interactions between antiplatelet agents and anticoagulants with investigational COVID-19 therapies should be considered.

General/Hospitalist

Title: Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area

Publisher: JAMA Network

Publication: April 22, 2020

URL: <https://jamanetwork.com/journals/jama/fullarticle/2765184>

Key Takeaway:

- Among patients who were discharged or died (n=2,634), 14.2% required ICU care, 12.2% received invasive mechanical ventilation, 3.2% needed renal replacement therapy, and 21% died.
- Among patients who received mechanical ventilation (n=320), mortality was 76.4% for ages 18-65 and 97.2% for those aged >65. Among patients who did not receive mechanical ventilation, mortality was 19.8% and 26.6%, respectively.

Critical Care

Title: Respiratory Support in Novel Coronavirus Disease (COVID-19) Patients

Publisher: American Journal of Tropical Medicine and Hygiene

Publication: April 21, 2020

URL: <https://doi.org/10.4269/ajtmh.20-0283>

Key Takeaway:

- Supplemental oxygen is the first essential step in the treatment of severe COVID-19 patients with hypoxemia. It can be delivered using a non-rebreathing mask and prone positioning. This can help extend vent availability in low-resource settings.
- For patients requiring invasive ventilation due to exhaustion or other cause, lung protective strategies may reduce the currently very high CFR of >50%.

Title: Management of COVID-19 Respiratory Distress

Publisher: JAMA Network

Publication: April 24, 2020

URL: <https://jamanetwork.com/journals/jama/fullarticle/2765302>

Key Takeaway:

- With the understanding that COVID-19 is not purely a respiratory pathogen but a systemic disease that injures the vascular endothelium, the management of ARDS in patients with COVID-19 may need to differ from the usual approach.

- COVID-19 patients initially tend to retain relatively good compliance despite very poor oxygenation (“Type L” lung disease). This may progress in some patients, either because of disease severity, host response, or suboptimal management, to “Type H” disease characterized by low compliance, higher lung weight, and higher PEEP response.
- Lung-protective ventilation strategies must be adjusted to the stage and type of disease.
- This follows a [previous report](#).

Cardiology

Title: Management of Acute Myocardial Infarction During the COVID-19; A Consensus Statement from the Society for Cardiovascular Angiography and Interventions (SCAI), American College of Cardiology (ACC), and the American College of Emergency Physicians (ACEP)

Publisher: *Journal of the American College of Cardiology*

Publication: April, 2020

URL: <http://www.onlinejacc.org/content/accj/early/2020/04/17/j.jacc.2020.04.039.full.pdf>

Key Takeaway:

- During the COVID-19 pandemic, primary PCI remains the standard of care for STEMI patients at PCI capable hospitals when it can be provided in a timely fashion, with an expert team outfitted with PPE in a dedicated CCL room. A fibrinolysis-based strategy may be entertained at non-PCI capable referral hospitals or in specific situations.

Title: Endothelial cell infection and endotheliitis in COVID-19, *Lancet*, April 20, 2020

Publisher: *The Lancet*

Publication: April 20, 2020 (letter)

URL: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30937-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30937-5/fulltext)

Key Takeaway:

- Viral inclusions of SARS-CoV-2 can be detected in endothelial cells, suggesting a mechanism of direct viral injury to the endothelium that may explain some of the clinical findings observed in severe COVID-19.

OB/Gyn

Title: Outpatient Assessment and Management for Pregnant Women with Suspected or Confirmed Novel Coronavirus (COVID-19)

Publisher: Society for Maternal-Fetal Medicine

Publication: April 22, 2020

URL: <https://www.smfm.org/covidclinical>

Key Takeaway:

- The Society for Maternal-Fetal Medicine (SMFM) and the American College of Obstetricians and Gynecologists (ACOG) have developed an algorithm for assessment and management of pregnant women with COVID-19 (available in [English](#) and [Spanish](#)).
- SMFM and the Society for Obstetric Anesthesia and Perinatology (SOAP) continue to revise and update their guidance on [Labor and Delivery COVID-19 Considerations](#).
- In their [previously released statement](#), SMFM and ACOG state that while the CDC currently “does not indicate that pregnancy alone puts people at higher risk for severe illness resulting from COVID-19 infection,” the evidence underlying this statement is limited and will be augmented over time by additional data and testing.

Title: Clinical Characteristics of Pregnant Women with COVID-19 in Wuhan China, NEJM, April 17, 2020

Publisher: *New England Journal of Medicine*

Publication: April 17, 2020

URL: <https://www.nejm.org/doi/full/10.1056/NEJMc2009226>

Key Takeaway:

- On this review of pregnant women treated for COVID-19 in December 2019-March 2020 in Wuhan, the risk of severe disease appeared to be similar to that in the general population. Nine of 118 patients had severe disease and only one required ventilation.

Surgery

Title: Joint Statement: Roadmap for Resuming Elective Surgery after COVID-19 Pandemic

Publisher: American Society of Anesthesiologists

Publication: April 17, 2020

URL: <https://www.asahq.org/about-asa/newsroom/news-releases/2020/04/joint-statement-on-elective-surgery-after-covid-19-pandemic>

Key Takeaway:

- This is a joint statement from the American College of Surgeons, American Society of Anesthesiologists, Association of periOperative Registered Nurses, and American Hospital Association regarding when it may be safe to resume elective surgeries.
- Eight key considerations are outlined: timing for reopening of elective surgery, COVID-19 testing in the facility, PPE, case prioritization and scheduling, post-COVID-19 issues, collection and management of data, COVID-related safety and risk mitigation surrounding the “second wave,” and additional COVID-19-related issues.

Pediatrics

Title: Epidemiological Characteristics of 2,143 Pediatric Patients With 2019 Coronavirus Disease in China

Publisher: *Pediatrics: Official Journal of the American Society of Pediatrics*

Publication: March 16, 2020

URL: <https://pediatrics.aappublications.org/content/early/2020/03/16/peds.2020-0702.1>

Key Takeaway:

- Children at all ages appeared susceptible to COVID-19, and there was no significant gender difference. Over 90% had asymptomatic, mild, or moderate disease. The number of fatalities has been extremely low.

Title: Ventilator Simulator for Pediatrics

Publisher: Open Pediatrics

Publication: April 2020

URL: <https://www.openpediatrics.org/assets/simulator/ventilator-simulator>

Key Takeaway:

- This is a free simulator for training on ventilator management in pediatric patients.

Emergency Medicine

Title: ACEP COVID-19 Field Guide

Publisher: American Society of Emergency Physicians

Publication: April 20, 2020 (continuously updated)

URL: <https://www.acep.org/corona/covid-19-field-guide/publishers-notice/>

Key Takeaway:

- This is a continuously updated guide for emergency medicine practitioners, not meant to be definitive or to establish a single standard of care. The publishers note not all of the suggestions in the guide are evidence-based.
- It is easily searchable and navigable and provides links and references to resources for clarification and further information. Sections include home and work safety, triage, EMS, and patient treatment.

Title: US DHHS/ASPR COVID-19 Clinical Rounds

Publisher: US Department of Health and Human Services (DHHS) Office of the Assistant Secretary for Preparedness and Response (ASPR)

Publication: April 21, 2020

URL: <https://echo.unm.edu/covid-19/sessions/hhs-aspr-clinical-rounds>

Key Takeaway:

- A series of webinars and discussions launched by DHHS/ASPR and Project ECHO, on patient care and operations within Emergency Medicine, EMS, and Critical Care.

HEALTH WORKFORCE

Title: The AMA Medical education COVID-19 resource guide

Publisher: American Medical Association

Publication: April 2020

URL: <https://www.ama-assn.org/delivering-care/public-health/medical-education-covid-19-resource-guide>

Key Takeaway:

- A compendium of resources on the impact of the COVID-19 crisis on medical trainees, including guidance on graduations, exams, licensing, and employment.

Title: The ANA COVID-19 Resource Center

Publisher: American Nursing Association

Publication: April 2020

URL: <https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/>

Key Takeaway:

- Resources by the American Nursing Association for informing and supporting nurses during the COVID-19 crisis. Includes resources on clinical care, continuing education, advocacy, well-being, ethics, and more.

EPIDEMIOLOGY AND PUBLIC HEALTH

Title: Population-Based Estimates of Chronic Conditions Affecting Risk for Complications from Coronavirus Disease, United States

Publisher: *Emerging Infectious Diseases*

Publication: April 23, 2020

URL: https://wwwnc.cdc.gov/eid/article/26/8/20-0679_article

Key Takeaway:

- Over 45% of US adults are at increased risk for complications from coronavirus disease because of cardiovascular disease, diabetes, respiratory disease, hypertension, or other conditions which predispose to more severe disease. Rates of co-morbidities increase by age, from 19.8% for persons 18–29 years of age to 80.7% for persons >80 years of age, and vary by state, race/ethnicity, health insurance status, and employment.

GOVERNMENT/POLICY UPDATES

Title: HHS COVID-19 Frequently Asked Questions For Hospitals, Hospital Laboratory, and Acute Care Facility Data Reporting

Publisher: US Federal Emergency Management Administration

Publication: April 10, 2020

URL: <https://www.fema.gov/news-release/2020/04/10/coronavirus-covid-19-pandemic-hhs-letter-hospital-administrators>

Key Takeaway:

- In this document addressing hospital administrators, the US Secretary of DHHS details the Federal Government's data needs, explains the division of reporting responsibility between hospitals and states, and gives options for the delivery of this information.

Title: Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors

Publisher: The Johns Hopkins Center for Health Security

Publication: April 17, 2020

URL: <https://www.centerforhealthsecurity.org/our-work/publications/public-health-principles-for-a-phased-reopening-during-covid-19-guidance-for-governors>

Key Takeaway:

- The Johns Hopkins Center for Health Security offers a framework for considering risks regarding the likelihood of disease transmission. As new cases of COVID-19 begin to decline, there will need to be decisions at the state level about how to transition out of strict physical distancing measures and into a phased reopening.

Title: A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US

Publisher: The Johns Hopkins Center for Health Security

Publication: April 10, 2020

URL: https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200410-national-plan-to-contact-tracing.pdf

Key Takeaway:

- The Johns Hopkins Center for Health Security and the Association of State and Territorial Health Officials (ASTHO) propose a plan to dramatically scale up the public health workforce in order to carry out aggressive case finding and epidemic containment in the US over the course of the next year.
- This is similar to the approach currently being rolled out in [Massachusetts](#) and to the [NACCHO position statement](#).

Title: Policy and Public Health Recommendations for Easing COVID-19 Distancing Restriction

Publisher: Infectious Disease Society of America

Publication: April 16, 2020

URL: https://www.idsociety.org/contentassets/9ba35522e0964d51a47ae3b22e59fb47/idsa-recommendations-for-reducing-covid-19-distancing_16apr2020_final-.pdf

Key Takeaway:

- IDSA/HIMVA position outlining steps to ensure that “re-opening” areas at risk for resurgent COVID-19 transmission is done as safely as possible.
- Continued physical distancing behaviors should be maintained until transmission is measurably slowed to a manageable “baseline” level ($R_0 < 1$) such that cases are reduced to a level that allows resumption of comprehensive and rapid case identification and the

ability to conduct thorough contact tracing. This approach has proven effective in controlling other respiratory infections like tuberculosis and SARS.

- The ability to re-open safely will depend on the ability to scale up aspects of the medical and public health response spanning testing, treatment, prevention, and preparedness.

Title: Roadmap to Pandemic Resilience

Publisher: Harvard University Center for Ethics

Publication: April 20, 2020

URL: https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_updated_4.20.20.pdf

Key Takeaway:

- This paper is designed to educate the American public about what is emerging as a consensus national strategy from experts and thought leaders.
- This policy roadmap summarizes the above public health approaches, and integrates them with a society-wide approach that can help rebuild trust in the safety of individuals and the population, while supporting a renewal of mobility and mobilization of the economy.

ETHICS

Title: COVID-19 Ethics Resource Center

Publisher: *American Medical Association Journal of Ethics*

Publication: Continuously updated

URL: <https://journalofethics.ama-assn.org/covid-19-ethics-resource-center>

Key Takeaway:

- A collection of AMA resources and writings meant to promote ethical reflection around challenges including rationing of limited health care resources, restriction of individual movement and liberties, and the professional duty to treat in the face of personal danger.

RESOURCES

Title: CDC COVID-19 Surge Calculator

Publisher: US Centers for Disease Control and Prevention

Publication: April 21, 2020

URL: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/COVIDsurge.html>

Key Takeaway:

- A spreadsheet-based tool that hospital administrators and public health officials can use to estimate the surge in demand for hospital-based services during COVID-19 pandemic.

- Users enter the population in the hospital catchment area number of cases to date, the available hospital resources (non-ICU beds, ICU beds, and mechanical ventilators), and up to three community mitigation strategies.

Title: COVID-19 Hospital Resource Package

Publisher: US DHHS ASPR TRACIE

Publication: April 24, 2020 (continuously updated)

URL: <https://files.asprtracie.hhs.gov/documents/covid-19-hospital-resource-package-document.pdf>

Key Takeaway:

- Resources for hospital administrators compiled by DHHS ASPR [Technical Resources, Assistance Center, and Information Exchange \(TRACIE\)](#). Sections include Hospital Surge, Crisis Standards of Care, Staffing Surge and Resilience, Workforce Protection, HHS and CMS Regulatory Relief, Equipment Supply Surge, and Telemedicine. Though these resources may be individually listed in prior Intelligence Reports, this brings those together.

Title: N95 MASK RE-USE STRATEGIES

Publisher: Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

Publication: April 17, 2020

URL: <https://www.sages.org/n-95-re-use-instructions/>

Key Takeaway:

- The CDC and NIOSH do not formally recommend decontamination and re-use of N95 masks, but acknowledge that in times of scarcity such strategies can be used based on individual clinical judgment and the institutional resources available.
- Because coronaviruses lose their viability significantly after 72 hours, organizations have promoted a rotation and re-use strategy. Assuming no soiling and minimal to no viral contamination to the mask, this guidance suggests a strategy for reusing N95 masks.

GWU RESEARCH OPPORTUNITIES

Special Intramural Funding Opportunity: COVID-19 Research Fund

Publisher: George Washington University

URL: <https://research.gwu.edu/covid-19-research-fund>

Key Takeaway:

- The goal of the COVID-19 Research Fund is to support as many high-impact projects as possible with the allocated funding. In anticipation of a high volume of proposals, we ask that applicants only request funding that cannot be secured elsewhere and that is critical to achieve the project's objectives.

EMERGING CONVERSATIONS*

- WHO cautions against interpreting results of serologic studies to indicate immunity ([CNN](#)).
- Serologic testing in Santa Clara County, CA suggests substantially more widespread asymptomatic infection than previously indicated ([Medrxiv](#)).
- Reports of blood clotting complications in some young patients ([Washington Post](#)).
- Accuracy of rapid molecular test for COVID-19 questioned ([NPR](#)).
- Europe and New York strain of SARS-CoV-2 may be deadlier than others ([Medrxiv](#)).
- Hydroxychloroquine did not improve outcomes and was associated with higher mortality in VA study ([Medrxiv](#)).
- Poison control centers in several states report an increase in calls related to accidental ingestions of household cleaners ([Business Insider](#)).

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