



Partial Resumption of Economic, Health Care and Other Activities While Mitigating COVID-19 Risk and Expanding System Capacity

A Clinical and Public Policy Guidance from the American College of Physicians

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Introduction

The American College of Physicians (ACP) has developed this public policy guidance for federal, state, and local authorities, and others having an influence over public policy, to address the increasing calls for the United States, and state and local communities in the U.S. to “re-open” certain economic, social and medical care activities, which often is presented as being in conflict with what public health experts believe to be the best, safest and most effective approaches to slow the spread of the COVID-19 virus and lower mortality rates. In some cases, state and local authorities are prematurely making ill-advised decisions to lift restrictions on economic and social activities that are inconsistent with the advice of public health experts, endangering the public.

Clarity, consistency, effective communications to the public, public health expertise, and reliance on the best available evidence are clearly and urgently needed to guide the next phase of the country’s response to COVID-19. Yet ACP is concerned words like “re-open the economy” implies that the decision governments, public health authorities, employers, and health care delivery systems must make is a binary choice: one either “opens up” the economy or keeps the economy “closed.” This is false and misleading, creates unnecessary conflict, and hampers decision-making.

ACP believes that the United States instead should chart a way forward to allow certain economic and social activities to be resumed in a phased and prioritized way, based on the best available evidence, in a manner that mitigates risk (slows and reduces the spread of COVID-19, and associated deaths and other harm to patients) and rapidly expands health system capacity to diagnose, test, treat, conduct contact tracing (with privacy protections), and conduct other essential public health functions.

ACP recognizes that while sustained “stay-at-home” and other social distancing policies and practices have been shown to be the single most effective way to reduce the spread of COVID-19, *and should only be eased when other conditions are in place to mitigate risk as discussed in this guidance*, there is growing concern about how long strict “lockdown” or “stay at home” policies and practices can remain in place without doing harm to the mental health of individuals and families caused by high levels of stress and anxiety, loneliness and social isolation;¹ delays in seeking care for non-COVID-19 conditions;^{2,3} difficulties and challenges in family and household relationships; domestic violence;⁴ disruption in the education of children and adult students; reduced access to food and medications; increased risk of substance use;⁵ and the economic and health harms associated with loss of employment (and often, employer-based health insurance) and businesses closing.

In previous policy statements, the American College of Physicians (ACP) has affirmed that “decisions on easing, extending or increasing isolation or social distancing recommendations and requirements should be constantly re-evaluated and based on what clinical and public health experts assess to be the most effective in slowing the spread of COVID-19, treating those with it, reducing illness and mortality, and ensuring that the health care system has the necessary capacity to provide evidence-based treatments to all who require them.⁶ ACP urged caution on “prematurely reducing social distancing and called for an evidence-based approach to ensure key essential elements are in place and scaled appropriately in communities before easing restrictions.” Such elements must include expanding screening and testing capacity, contact tracing with privacy protections, sufficient workforce and supply capacity to do the testing, analysis, and follow up, fully protective Personal Protective Equipment (PPE) for every frontline physician, nurse, or other professional health care worker and sufficient hospital, physician, and health system capacity to treat patients with the virus.⁷ ACP has also stated that “physicians’ primary goal is to care for patients, maintaining access to clinical services in environments that are safe for all. While it should be recognized that regular ongoing evaluation of patients with chronic health conditions can prevent deterioration that might lead to unnecessary emergency room or hospital care, during times such as the COVID-19 pandemic, it is appropriate to reassess whether the patient requires an in-person visit.”⁸

This new clinical and public policy guidance builds and expands upon those policies. In developing the guidance, ACP reviewed and drew from its own expertise in clinical policy, ethics, practice support, advancing quality, and public policy, and on several reports by well-respected public health experts and researchers, and current and former governmental officials as referenced in the citations. The authors acknowledge and appreciate the contributions of the members of the ACP Advisory Group on COVID-19 Social Distancing and Mitigation, Robert Centor, MD, MACP; Janet Jokela, MD, MPH, FACP; Marianne Parshley, MD, FACP; Michael Tan, MD, FACP; and Stephen Sisson, MD, FACP, and of Lois Snyder Sulmasy, JD, who provided comments on an earlier draft of this paper.

Resuming Economic and Social activities in a State or Community: What Is Needed?

Communities Need to Have Sufficient Testing Capacity

Many communities across the United States are currently under extensive physical distancing measures that are part of a broadly applied, population-level strategy to slow spread of the COVID-19. These measures have important social and economic consequences. In order for economic and social activities to begin to resume, public health authorities and public officials will need to move toward a phased approach to manage the COVID-19 pandemic.^{9 10} These decisions will need to be made at the state level and local community level taking into account the situation in each state and community, risk levels, and resource assessment.¹¹ The key ingredient to a successful phased approach is the ability to conduct a widespread testing using a rapid and accurate test.^{12 13} The purpose is two-fold: first, testing is the essential first step in being able to provide appropriate management and follow-up for individual patients. Second, testing provides vital epidemiological data for which officials should use to inform policymaking.

1. ACP recommends that in the absence of currently effective vaccine or treatment options available for COVID-19, state and local authorities should prioritize a strategy of case finding, screening, and surveillance to track and reduce further spread.

2. ACP recommends that during this prioritization, special attention needs to be paid to older adults (over 60), those with underlying conditions, those in communities where health care disparities are most pronounced, and others who are at an increased risk for COVID-19.¹⁴

Using the following decision thresholds, each community should prioritize and stage a gradual resumption of activities based on the consideration of localized data (e.g., prevalence, transmission rates, demographics) and factors (health system capacity, economy). Officials will need to continuously monitor epidemiological data (reproduction rate, daily case counts, hospitalizations, deaths) and should be prepared to reinstate some or all physical distancing measures in order to respond to surges as needed. It is critical to use a free, readily available, rapid, and reliable test with a high sensitivity and specificity for COVID-19 with a streamlined and easy sample collection.

Priority Level 1: Testing All Symptomatic Individuals and Close Contacts (Molecular Testing)

Prior to partial resumption of economic and social activities, communities should establish sufficient capacity to test all symptomatic patients and close contacts of confirmed patients using a free, readily available, rapid, and reliable molecular (diagnostic) test with a high sensitivity and specificity for COVID-19 with a streamlined and easy sample collection. Special attention needs to be paid to communities with high health care disparities.

Priority Level 2: Screening All Asymptomatic, High-Risk Population (Molecular Testing)

In the early stages of a partial resumption of economic and social activities, communities should ramp up capacity to screen high-risk asymptomatic populations with targeted approaches that are tailored to the community's specific demographics, economy, and infrastructure. High-risk populations should generally be defined as those with a high risk of transmission. Communities should roll out screening to more asymptomatic populations as resources allow, with the ultimate goal of gradually screening the general population.

Priority Level 3: Surveillance (Antibody Testing)

Prior to full resumption of economic and social activities, communities should establish sufficient capacity to conduct robust surveillance of communities using a reliable immunologic (antibody) or serologic tests to track the incidence, prevalence, and transmission of SARS-CoV2. This capacity will help to track presumptive immunity and prevalence and to inform vaccine development.¹⁵

While widespread COVID-19 testing, contact tracing and surveillance are necessary to mitigate the spread of the disease, diagnostic testing decisions must balance the potential benefits, risks and limits of testing based on the best available evidence. Individuals undergoing testing should engage in an informed consent process including notification of confidentiality and privacy protections, disclosure of public health reporting and contact tracing requirements

COVID-19 testing capability should be distributed fairly across regions and neighborhoods including those with high health care disparities.

3. ACP recommends that until an effective vaccine or a treatment is available, active monitoring and voluntary self-isolation based on best available evidence should be recommended for any patient

who tests positive for SARS-CoV2. For any individual who has been exposed to a patient who tested positive for SARS-CoV2, active monitoring and self-isolation should continue for at least 14 days from testing positive, based on the estimated incubation period.

The incubation period of COVID-19 infection is believed to be 14 days. A self-quarantine and self-isolation strategy is utilized to reduce the likelihood of spreading the disease. The median incubation period in symptomatic patients with COVID-19 is estimated to be 5.1 days (95% CI 4.5 to 5.8 days) with 97.5% developing symptoms within 11.5 days. However, 101 out of every 10,000 cases will develop symptoms after 14 days of quarantine or monitoring.¹⁶ These results support active monitoring and self-isolation of patients exposed to COVID-19 for at least 14 days although longer monitoring or quarantine may be justified in some cases.

Any person who tests positive and self isolates for at least 14 days should monitor their symptoms and seek medical care if symptoms worsen. This care should be universally and freely available to all COVID-19 patients.

3. ACP recommends that communities achieve a minimum threshold to ensure adequate diagnostic testing capabilities and strategies are in place.

The capacity to quickly and accurately diagnose cases of COVID-19 is imperative for the successful implementation of a case-based intervention strategy to contain the spread of COVID-19 while partially or fully resuming economic and social activities.^{17 18} The evidence suggests that the United States will need to “test 2 to 6% of the population per day, or between 5 and 20 million people per day.”¹⁹

4. ACP recommends that for all molecular or serological tests used for COVID-19 or SARS-CoV2, officials should publicly report performance expectations (e.g., sensitivity, specificity) and report community-level utilization and results.

The FDA has acted to fast track development and authorization of new diagnostic tests in response to the pandemic. As more and more tests become available, public reporting of performance expectations and standards will be vital to understand the accuracy of the tests. Public reporting on utilization and results will also help to inform local, state, and national level surveillance of the pandemic.

Communities Need to Have Appropriate Health Care System Capacity

5. ACP recommends the development of a national implementation strategy to ensure adequate healthcare system capacity during periods of surge and availability of personnel protective equipment for all physicians and other clinicians and health care workers.

This includes staffed hospital and critical care beds and post-hospitalization capacity in long term and extended care facilities, skilled nursing facilities, rehabilitation centers, and primary care. In addition, this requires that supply chains remain intact so that key health care resources including trained personnel, essential testing materials, personal protective equipment, ventilators, CVVH/dialysis machines, essential medications, and other supplies are allocated and redirected based on need.^{20,21,22}

The national strategy must be developed, implemented and coordinated with input from state and local authorities, supply chain managers, private industry and health care systems to assure that resources reach areas that need them including financially disadvantaged communities with pre-existing health care disparities

Communities Need to Have the Capability for Effective Contact Tracing with Privacy Protections

6. ACP recommends ramping up traditional contact tracing measures and capabilities supplemented with complementary technology.

Public-health infrastructure will need to be dramatically scaled up throughout the country by the addition of at least 100,000 trained contact tracers and the creation of a digital platform that enables effective tracking of testing, surveillance, and contact tracing across the country, while ensuring that sufficient individual privacy and confidentiality safeguards are in place.^{23,24} This workforce should be recruited from the communities served and trained to conduct contact tracing in a manner that is culturally and linguistically appropriate. This workforce will be strategically deployed to areas of greatest need and managed through state and local public health agencies in close coordination with regional healthcare facilities. Additional funding will be necessary to support implementation of safe quarantine practices for infected individuals and their contacts.²⁵

7. ACP recommends that contact tracing and other practices to assist in public health surveillance be fully aligned with civil liberties, due process, non-discrimination, data and health privacy protections, and health ethics.²⁶

A. ACP recommends that any uses of technology in the US in the context of pandemic should be demonstrated to be effective, be temporary and ensure safeguards for privacy and confidentiality are in place.

B. ACP recommends that physicians and their care teams and patients should be actively involved in the development, testing, and implementation of any public health surveillance technology or application.

- Public health surveillance technologies or applications should be made equally available to everyone interested in using them in a non-discriminatory manner.
- There should be clear mechanisms in place regarding the governance and oversight of public health surveillance technologies and applications and developers should use open source coding approaches in order to allow for independent and regulatory audit.^{27 28}
- The broader contact tracing workforce needs to be provided education and training regarding the ethics of public health data collection and use, how to properly manage public health data, risk communication, cultural sensitivity, and the specifics of local processes and data collection efforts.²⁹
- Data collection and analysis infrastructures that are used in testing and surveillance should both prioritize connection to needed care for the individual user and provide

support for COVID-19 decision making at the population-level to the extent possible, in order to help mitigate and ideally reduce disease spread.³⁰

- All such technologies should first be tested in demonstration projects *to the extent feasible due to the time-sensitive nature of this pandemic* to assess the effectiveness and unforeseen consequences.³¹ If implemented, they should constantly be monitored to determine their impact on disease mitigation, ideally based on predetermined measures that are developed with input from physicians and their care teams and patients.³²
- Information on this impact should be shared publicly,³³ and mechanisms should proactively be put in place to shut down the use of a technology or app if it is deemed ineffective, unethical in its implementation, or no longer needed.³⁴

C. ACP recommends that extensive safeguards must proactively be put into place in order to ensure user privacy and responsible data management by any public health surveillance technologies or applications.³⁵

- These safeguards should be developed with input from the public and in partnership with other public and private efforts to improve transparency and trust with regard to privacy, encourage patients to seek testing and treatment, not exacerbate health disparities and should prioritize the development of national educational campaigns and guidance on patient rights, physician responsibility and liability, and how to navigate the health data privacy landscape.³⁶

D. ACP recommends that informed consent and opt-in should be required. Users of any public health surveillance technology must be provided with standard, transparent, and easily understandable notices of privacy practices that contain all permitted uses of the data.

- Users should be able to exercise choice at multiple levels, such as installing the app, allowing the app to operate in the background or only while open, receiving alerts from the app, and other functions.
- Consent models must be developed expeditiously and include, to the extent possible, input from the public, ethicists, civil rights experts, physicians and other clinicians, and health care and public health policy experts.
- Consent models must account for consumer literacy and preferred language, be patient-friendly, revocable, and unambiguous.
- Additionally, if consent is to operate effectively in a networked environment, health IT standards must be developed and consistently implemented so that it is clear that the consent is tied to the health information to which it applies.^{37,38}

ACP believes that public health surveillance technologies or applications may be useful as supplemental tools, in the context of a broader approach to mitigation and contact tracing, as they can act as a “force multiplier” to connect with many more people in a community.³⁹ While such technologies used to assist in public health surveillance efforts for COVID-19, including for the purposes of mitigation and contact tracing hold promise, they also raise privacy, confidentiality, and other issues. They may have benefits, but the effectiveness of such approaches is not yet proven. In some countries, technology-

assisted contact tracing has proven to be very problematic with data collected on location, immigration status, transit use, personal and health records, and credit transactions, along with reporting to police and many government agencies.⁴⁰ These approaches are not acceptable and should be expressly avoided.

Communities Need to Work with Public Health Authorities to Develop Risk-Based Plans for a Phased Resumption of Economic and Social Activities When Cases and Transmission Are Declining Sufficiently

8. In addition to the recommendations above on testing, contacting tracing and health system capacity, ACP recommends that communities consider initiating or continuing a gradual resumption of economic and social activities when the following signals are present:

- When new daily case counts demonstrate a consistent and stable decline for at least 14 days.⁴¹
- The reproduction rate is <1 . The reproduction rate is the average number of secondary cases that is generated by each case.⁴² For example, a reproduction rate of 3 indicates that an infectious person will lead to an average of 3 additional cases (through transmission).⁴³ A reproduction of <1 means that on an average, an infectious person will transmit to fewer than one other person and is a strong indication that the outbreak has been contained.

Once adequate and accurate testing capabilities are in place, it is critical that communities monitor local epidemiology and base decisions on epidemiological data in order to continuously assess public safety as it relates to the real-time status of the pandemic.⁴⁴ State and local authorities should continue to monitor locality-specific data on the number of new cases and deaths, hospitalization and Intensive Care Unit rates, and other relevant data, using trusted resources such as the Tracking Global Cases maps and data from the Johns Hopkins Coronavirus Resource Center,⁴⁵ and be prepared to re-establish social distancing policies should the data show number of cases, deaths, hospitalization and ICU rates increasing over previous days.

9. ACP recommends that public officials and public health authorities work with local public health and state officials to employ a risk-based assessment to prioritize the order in which certain sectors can resume specified activities.

A collaborative risk-based assessment approach is needed to make decisions about gradually reopening medical practices and health systems to care for non-COVID and non-acute patients including the eventual resumption of preventive screening and elective procedures. For the non-medical sectors of the economy, the Center for Health Security from the Bloomberg School of Public Health at Hopkins has provided an example of high level risk assessment for opening seven different sectors of the economy including “non-essential” businesses, schools and childcare facilities, outdoor spaces, community gathering spaces, transportation, mass gatherings and interpersonal gatherings.⁴⁶

10. ACP recommends that public officials, public health authorities, community leaders, physicians, hospitals, employers, and others be involved in decision-making create and implement an effective communication strategy to ensure community engagement in both mitigation measures taken to prevent the spread of disease and plans for resuming some economic and social activities.

ACP agrees with Rivers et al that “This requires substantial effort to coordinate with community and business stakeholders. Communication must address concerns from those stakeholders and should be conducted with an interest in two-way communication and input from a wide range of voices. Without community engagement as a goal of communication efforts, there is a risk of distrust, spread of misinformation, and lack of compliance. Different states and local communities may weigh differently the competing considerations and how they stage their reopening, based on local needs, resources, social issues, and risk factors. This underscores the importance of leaving these decisions to state and local officials, and for state and local officials to involve interdisciplinary stakeholder groups in reopening discussions.”⁴⁷

11. ACP recommends utilizing the best available evidence to slow and reduce transmission of COVID-19 even as certain economic and social activities are partially resumed.

The SARS-CoV2 virus can spread between people in a close proximity. Strategies to slow and reduce the transmission in community settings include maintaining at least six feet of physical distance, perform hand hygiene such as washing hands using soap and water or alcohol-based hand rub, cover cough and sneezes using a bent elbow or paper tissue, refrain from touching mouth, eyes, or nose, and clean and disinfect.”⁴⁸ ⁴⁹When using non-medical masks in a community setting, the following should be taken into consideration: numbers of layers of fabric, breathability of material used, water repellence/hydrophobic qualities, shape of mask, and fit of mask.⁵⁰

12. ACP believes that availability of therapeutics and a vaccine that are effective against COVID-19 is a prerequisite for complete resumption of normal activities.⁵¹

An effective vaccine and/or treatment are key tools for putting an end to epidemic, reduce spread of the virus, and drive reproduction rate of the virus below 1. Vigilance is needed until these two options are widely available and deployed to fight the pandemic.⁵²

Resuming In-Person Medical Care Visits and Other Health Care Services: What Is Needed?

1. ACP recommends that the ability of a community to have the capacity needed for COVID-19 mitigation, as recommended by ACP in the preceding guidance on *Resuming Economic and Social activities in a State or Community: What Will Be Needed*, should also guide decisions on resuming in-person medical care visits and other health care services.

Communities should have in place the testing, contact tracing, health system capacity, communications plans, and other elements recommended by ACP as decisions are made by public health authorities, physicians, and health care facilities on gradually resuming in-person medical care visits and other

health care services that were temporarily suspended or delayed to mitigate the spread of COVID-19 and free up accessible resources to treat the virus.

2. ACP recommends that public and private payers provide direct financial support to practices to offset losses of revenue and increased costs, through at least the 2020 calendar year, even as they begin to resume in person visits.
 - A. *ACP recommends that primary care physician practices, in particular, receive per patient per month prospective payments (PPPM) to make them whole for revenue losses and increased costs.*
 - B. *ACP recommends that support also be prioritized for physicians in smaller practices, internal medicine subspecialty practices, and practices in underserved communities.*

ACP has recommended that both Congress and CMS provide funding to physician practices to offset the substantial revenue losses they have incurred as they moved from in-person visits to mostly virtual visits (telehealth and phone calls with patients).⁵³ Yet even as many physician practices have received emergency funding from the federal government, many remain at risk of closing their doors due to substantial reductions in revenue and patient volume.⁵⁴ Primary care practices are particularly at risk.⁵⁵ Internal medicine specialists providing preventive, primary and comprehensive care, including internal medicine subspecialists caring for patients with complex chronic illnesses, are at risk of having their practices close without more support.

Even when practices are able to safely begin seeing more patients back in the office, it is likely that they will be seeing fewer patients in the office than in the past, adjusting scheduling to reduce the risk of COVID-19 transmission, and will continue to see many patients via telehealth and phone calls. Patients may also be reluctant to go into a physician's office. Direct financial support, including PPPM payments to primary care, will continue to be necessary to keep practices open.

3. ACP recommends that ambulatory internal medicine practices start planning how they might safely and effectively begin to resume in-person visits that have been temporarily suspended or postponed. Rigorous infection control protocols including availability and use of personal protective equipment for staff and patients, physical distancing measures, facility and equipment sterilization procedures, and frequent hand washing/sanitization are essential to ensure patient and staff safety. In addition, staff will need to be screened daily for fever and COVID-19 symptoms prior to in-person contact with patients and should undergo periodic testing based on availability. ACP supports the recommendation from CMS that practices should make every effort to maximize the use of telephone and video visits in order to limit in person visits to those necessary for clinical decision making and/or treatment.⁵⁶
4. ACP recommends that physicians, practices, and health care facilities consider the use of innovative workflows and schedules designed to minimize contact between patients and staff.

Examples include: asking staff engaged in activities like scheduling, billing, and telemedicine to do so remotely; "no touch" patient check in and text notification for patients to proceed directly to the exam room, physically distanced waiting rooms (or close and repurpose waiting rooms); staggered scheduling of mini-teams of staff; separate scheduling of COVID-19 follow up visits and respiratory clinics and many others. ACP recommends that practices select innovative workflows they think might work best in their settings, to try them and commit to the ongoing sharing of best practices with one another.

The Federal Government's Role: What Is Needed?

1. ACP recommends that the federal government provide state and local authorities with the resources, funding and effective distribution based on need to 1) ensure sufficient testing capacity, contact tracing and the workforce needed for follow-up, 2) personal protective equipment, 3) health system treatment capacity, and other elements, as described in this guidance.

While state and local governments and public health authorities have the principal role in making decisions on resuming economic and other activities while mitigating COVID-19 and building up and sustaining health system capacity, the federal government must do all that it can to ensure sufficient funding and resources to allow such decisions to be made and implemented safely and effectively, resourced to high risk communities, and to communities where surges may not yet have occurred but where resources are needed to control the spread of the virus early. ACP has said that the federal government must do more to ensure that the required tests, workforce capacity, supplies, and PPE are available and distributed based on need.⁵⁷ ACP has also called on Congress and the administration to address drug shortages and price-gouging, and support for physician practices.

ACP recommends consideration of the recommendations made in an April 27, 2020 bipartisan letter from Mr. Andrew Slavitt, former CMS administrator under President Obama's administration, Dr. Scott Gottlieb, former FDA Commissioner under President Trump's administration, and other former public officials and current non-governmental public health experts, calling on Congress to authorize and appropriate \$46.5 billion to successfully contain the virus spread. They "propose Congress authorize and appropriate this funding in the form of block grants to states and territories twice annually based on plans they submit to the Department of Health & Human Services with their projected case counts, testing capabilities, and as they are available, data tools for functions such as immunization tracking." These monies would go to "expansion of the contact tracing workforce by 180,000 persons until such time as a safe, effective vaccine is on the market . . . (\$12 billion), voluntary self-isolation facilities utilizing vacant hotels in order to prevent infection spread (\$4.5 billion), income support for voluntary self-isolation (\$30 billion), and other purposes."⁵⁸

ACP believes that funding levels and programs recommended by Dr. Gottlieb, Mr. Slavitt and the other authors represent a sound blueprint for Congress and the administration to provide the necessary resources to effectively and safely allow state and local authorities, businesses, and health care facilities to begin resuming certain priority activities, as recommended by ACP in this guidance, while mitigating harm from COVID-19.

Conclusions

The United States has entered a critical point in its approach to slowing the spread of COVID-19 and reducing deaths and other harms from the disease. Widespread adoption of social distancing and other evidence-based practices are showing signs of beginning to reduce the spread of the virus, yet there is little evidence that most communities have turned the page and achieved the progress needed to resume economic and social activities on a broad scale. Premature discontinuation of such practices can create great harm and could lead to a subsequent resurgence of the virus, requiring resumption of strict lockdown, closure, and stay-at-home orders.

Yet there is also growing concern that there can be significant harm to the health and well-being of individuals and families exposed to prolonged social isolation, confinement with household members, loss of employment and income, and the stress and anxiety created.

The question, then, should not be whether the choice is between “re-opening” the economy or keeping it “closed” but to chart a way forward to allow certain economic and social activities to be resumed in a phased and prioritized way, *based on the best available evidence*, in a manner that mitigates risk (slows and reduces the spread of COVID-19, and associated deaths and other harm to patients) and rapidly expands health system capacity to diagnose, test, treat, conduct contact tracing (with privacy protections), and conduct other essential public health functions. ACP offers this guidance in the hope of helping to chart the way forward.

¹ Pfefferbaum B, North CS. Mental Health and the Covid-19 Pandemic: Perspective. *The New England Journal of Medicine*. April 2020. doi:10.1056/NEJMp2008017.

² Sullivan K. As coronavirus surges, non-COVID medical emergencies take a back seat, putting patients at risk. NBCNews.com. <https://www.nbcnews.com/health/health-news/coronavirus-surges-non-covid-medical-emergencies-take-back-seat-putting-n1175871>. Published April 4, 2020. Accessed April 29, 2020.

³ Tam C-CF, Cheung K-S, Lam S, et al. Impact of Coronavirus Disease 2019 (COVID-19) Outbreak on ST-Segment–Elevation Myocardial Infarction Care in Hong Kong, China. *Circulation: Cardiovascular Quality and Outcomes*. 2020;13(4). doi:10.1161/circoutcomes.120.006631.

⁴ WHO? COVID-19 and violence against women What the health sector/system can do. Reproductive Health. <https://www.who.int/reproductivehealth/publications/emergencies/COVID-19-VAW-full-text.pdf>. Published March 26, 2020. Accessed April 29, 2020.

⁵ Newman K. Why COVID-19 Poses Added Dangers for Drug Users. U.S. News & World Report. <https://www.usnews.com/news/healthiest-communities/articles/2020-04-02/coronavirus-poses-added-dangers-for-drug-users-nora-volkow-says>. Published April 2, 2020. Accessed April 28, 2020.

⁶ Executive Committee of the Board of Regents on behalf of the full Board of Regents. ACP Policy on Social Distancing. Philadelphia: American College of Physicians; March 26, 2020. Accessed at https://www.acponline.org/acp_policy/policies/acp_policy_on_social_distancing_during_covid-19_crisis_2020.pdf Accessed April 28, 2020.

⁷ Executive Committee of the Board of Regents on behalf of the full Board of Regents. ACP Statement on Identifying “Essential Elements” to Ease Social Distancing Protocols, Address White House Guidance to “Re-open” the US. Philadelphia: American College of Physicians; April 17, 2020. Accessed April 28, 2020. https://www.acponline.org/acp_policy/statements/statement_on_identifying_essential_elements_reopen_us_2020.pdf Accessed April 28, 2020.

⁸ Executive Committee of the Board of Regents on behalf of the full Board of Regents. Statement on Nonurgent In-Person Medical Care. Philadelphia: American College of Physicians; March 23, 2020. Accessed at https://www.acponline.org/acp_policy/policies/statement_on_non_urgent_in-person_medical_care_2020.pdf Accessed April 28, 2020.

⁹ Allen D, Block S, Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf Accessed April 29, 2020

¹⁰ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.

¹¹ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.

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- ¹² Allen D, Block S, Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf Accessed April 29, 2020
- ¹³ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.
- ¹⁴ Gottlieb S, R. C., McClellan M, Silvis L, Watson C. *National Coronavirus Response: A Roadmap to Reopening.*; 2020 <https://www.aei.org/wp-content/uploads/2020/03/National-Coronavirus-Response-a-Road-Map-to-Recovering-2.pdf> Accessed April 28, 2020.
- ¹⁵ Infectious Diseases Society of America. IDSA COVID-19 Antibody Testing Primer. Infectious Diseases Society of America. <https://www.idsociety.org/globalassets/idsa/public-health/covid-19/idsa-covid-19-antibody-testing-primer.pdf>. Published April 29, 2020.
- ¹⁶ Lauer, S.A, Grantz, K.H. et al. The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application. *Annals of Internal Medicine*. Published May 5 2020. <https://annals.org/aim/fullarticle/2762808/incubation-period-coronavirus-disease-2019-covid-19-from-publicly-reported>. Accessed May 5, 2020.
- ¹⁷ Allen D, Block S, Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf Accessed April 29, 2020
- ¹⁸ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.
- ¹⁹ Allen D, Block S, Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf Accessed April 29, 2020
- ²⁰ IDSA. Policy and Public Health Recommendations for Easing COVID-19 Distancing Restrictions. https://www.idsociety.org/contentassets/9ba35522e0964d51a47ae3b22e59fb47/idsa-recommendations-for-reducing-covid-19-distancing_16apr2020_final-.pdf. Published April 16 Accessed April 28, 2020.
- ²¹ Gottlieb S, R. C., McClellan M, Silvis L, Watson C. *National Coronavirus Response: A Roadmap to Reopening.*; 2020 <https://www.aei.org/wp-content/uploads/2020/03/National-Coronavirus-Response-a-Road-Map-to-Recovering-2.pdf> Accessed April 28, 2020.
- ²²Centers for Disease Control and Prevention Infection Control: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html?CDC_AA_refVal=https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html. Published April 12, 2020. Accessed April 29, 2020.

-
- ²³ IDSA. Policy and Public Health Recommendations for Easing COVID-19 Distancing Restrictions. https://www.idsociety.org/contentassets/9ba35522e0964d51a47ae3b22e59fb47/idsa-recommendations-for-reducing-covid-19-distancing_16apr2020_final-.pdf. Published April 16. Accessed April 28, 2020.
- ²⁴ Gottlieb S, R. C., McClellan M, Silvis L, Watson C. *National Coronavirus Response: A Roadmap to Reopening.*; 2020 <https://www.aei.org/wp-content/uploads/2020/03/National-Coronavirus-Response-a-Road-Map-to-Recovering-2.pdf> Accessed April 28, 2020.
- ²⁵ Slavitt A, Gottlieb S, Brilliant L, Gawande A, Frist B, Inglesby T. NPR. *NPR*. April 2020. <https://apps.npr.org/documents/document.html?id=6877567-Bipartisan-Public-Health-Leaders-Letter-on>. Accessed April 28, 2020.
- ²⁶ Allen D, Block S, Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf Accessed April 29, 2020
- ²⁷ World Health Organization Q&A: Ethics in public health surveillance. <https://www.who.int/news-room/q-a-detail/q-a-ethics-in-public-health-surveillance>. Accessed April 30, 2020.
- ²⁸ ACP Board of Regents. Health Information Technology and Privacy: Summary of Position Paper Approved by the ACP Board of Regents; July 2011. https://www.acponline.org/acp_policy/policies/acp_policy_on_social_distancing_during_covid-19_crisis_2020.pdf Accessed April 28, 2020.
- ²⁹ ^[1] Watson C, Cicero A, Blumenstock J, Fraser M. A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US. Center for Health Security. https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200410-national-plan-to-contact-tracing.pdf. Published April 10, 2020. Accessed April 28, 2020.
- ³⁰ McClellan M, Gottlieb S, Mostashari F, Rivers C, Silvis L. A National COVID-19 Surveillance System: Achieving Containment. https://healthpolicy.duke.edu/sites/default/files/atoms/files/covid-19_surveillance_roadmap_final.pdf Published April 7, 2020. Accessed April 28, 2020.
- ³¹ ACP Board of Regents. Health Information Technology and Privacy: Summary of Position Paper Approved by the ACP Board of Regents; July 2011. https://www.acponline.org/acp_policy/policies/acp_policy_on_social_distancing_during_covid-19_crisis_2020.pdf Accessed April 28, 2020.
- ³² McClellan M, Gottlieb S, Mostashari F, Rivers C, Silvis L. A National COVID-19 Surveillance System: Achieving Containment. https://healthpolicy.duke.edu/sites/default/files/atoms/files/covid-19_surveillance_roadmap_final.pdf Accessed April 28, 2020.
- ³³ Kahn Gilmore D. ACLU White Paper - Principles for Technology-Assisted Contact-Tracing. American Civil Liberties Union. <https://www.aclu.org/report/aclu-white-paper-principles-technology-assisted-contact-tracing>. Published April 16, 2020. Accessed April 30, 2020.
- ³⁴ Kahn Gilmore D. ACLU White Paper - Principles for Technology-Assisted Contact-Tracing. American Civil Liberties Union. <https://www.aclu.org/report/aclu-white-paper-principles-technology-assisted-contact-tracing>. Published April 16, 2020. Accessed April 30, 2020.

³⁵ Watson C, Cicero A, Blumenstock J, Fraser M. A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US. Center for Health Security. https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200410-national-plan-to-contact-tracing.pdf. Published April 10, 2020. Accessed April 28, 2020.

³⁶ ACP Board of Regents. Health Information Technology and Privacy: Summary of Position Paper Approved by the ACP Board of Regents; July 2011. https://www.acponline.org/acp_policy/policies/acp_policy_on_social_distancing_during_covid-19_crisis_2020.pdf. Accessed April 28, 2020.

³⁷ ACP Board of Regents. Health Information Technology and Privacy: Summary of Position Paper Approved by the ACP Board of Regents; July 2011. https://www.acponline.org/acp_policy/policies/acp_policy_on_social_distancing_during_covid-19_crisis_2020.pdf. Accessed April 28, 2020.

³⁸ Allen D, Block S, Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf Accessed April 29, 2020

³⁹ Watson C, Cicero A, Blumenstock J, Fraser M. A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US. Center for Health Security. https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200410-national-plan-to-contact-tracing.pdf. Published April 10, 2020. Accessed April 28, 2020.

⁴⁰ Watson C, Cicero A, Blumenstock J, Fraser M. A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US. Center for Health Security. https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200410-national-plan-to-contact-tracing.pdf. Published April 10, 2020. Accessed April 28, 2020.

⁴¹ Gottlieb S, R. C., McClellan M, Silvis L, Watson C. *National Coronavirus Response: A Roadmap to Reopening.*; 2020 <https://www.aei.org/wp-content/uploads/2020/03/National-Coronavirus-Response-a-Road-Map-to-Recovering-2.pdf> Accessed April 28, 2020.

⁴² Allen D, B. S., Cohen J, Eckersley P, Eifler M, et al. *Roadmap to Pandemic Resilience.*; 2020. https://ethics.harvard.edu/files/center-for-ethics/files/roadmaptopandemicresilience_final_0.pdf. Accessed April 29, 2020.

⁴³ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.

⁴⁴ Gottlieb S, R. C., McClellan M, Silvis L, Watson C. *National Coronavirus Response: A Roadmap to Reopening.*; 2020 <https://www.aei.org/wp-content/uploads/2020/03/National-Coronavirus-Response-a-Road-Map-to-Recovering-2.pdf>. Accessed April 28, 2020.

⁴⁵ Maps & Trends. Johns Hopkins Coronavirus Resource Center. <https://coronavirus.jhu.edu/data#charts>. Accessed April 30, 2020.

⁴⁶ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.

⁴⁷ Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf.

⁴⁸ Recommendation Regarding the Use of Cloth Face Coverings. Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html>. Published April 3, 2020. Accessed April 30, 2020.

⁴⁹ World Health Organization. Advice on the use of masks in the context of COVID-19. Interim Guidance (6 April 2020). WHO/2019-nCov/IPC_Masks/2020.3 [https://www.who.int/publications-detail/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](https://www.who.int/publications-detail/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). Accessed May 5, 2020.

⁵⁰ World Health Organization. Advice on the use of masks in the context of COVID-19. Interim Guidance (6 April 2020). WHO/2019-nCov/IPC_Masks/2020.3 [https://www.who.int/publications-detail/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](https://www.who.int/publications-detail/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). Accessed May 5, 2020.

⁵¹ Gottlieb S, R. C., McClellan M, Silvis L, Watson C. *National Coronavirus Response: A Roadmap to Reopening.*; 2020 <https://www.aei.org/wp-content/uploads/2020/03/National-Coronavirus-Response-a-Road-Map-to-Recovering-2.pdf> Accessed April 28, 2020.

⁵² Rivers C, M. E., Watson C, Schoch-Spana M, Mullen L, et al. *Public Health Principles for a Phased Reopening During Covid-19: Guidance for Governors.*; 2020 https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200417-reopening-guidance-governors.pdf. Accessed April 28, 2020.

⁵³ Fincher JW. American College of Physicians. *American College of Physicians*. April 2020. https://www.acponline.org/acp_policy/letters/acp_letter_to_secretary_azar_in_prioritizing_relief_funds_to_primary_care_and_other_frontline_physician_practices_april_2020.pdf. Accessed April 28, 2020.

⁵⁴ COVID-19 Financial Impact on Medical Practices. Medical Group Management Association. <https://mgma.com/getattachment/9b8be0c2-0744-41bf-864f-04007d6adbd2/2004-G09621D-COVID-Financial-Impact-One-Pager-8-5x11-MW-2.pdf.aspx?lang=en-US&ext=.pdf>. Accessed on April 28, 2020.

⁵⁵ Primary Care Practices Endangered from Steep Declines in Revenue and Staff New Survey Shows. Primary Care Collaborative. <https://www.pcpcc.org/2020/04/17/primary-care-practices-endangered-steep-declines-revenue-and-staff-new-survey-shows>. Published April 17, 2020.

⁵⁶ CMS. CMS Recommendations Re-opening Facilities to Provide Non-emergent Non-COVID-19 Healthcare: Phase 1. <https://www.cms.gov/files/document/covid-flexibility-reopen-essential-non-covid-services.pdf>. Accessed April 30, 2020.

⁵⁷ Executive Committee of the Board of Regents on behalf of the full Board of Regents. ACP Statement on Identifying “Essential Elements” to Ease Social Distancing Protocols, Address White House Guidance to “Re-open”

the U.S. Philadelphia: American College of Physicians; April 17, 2020. Accessed at https://www.acponline.org/acp_policy/policies/acp_policy_on_social_distancing_during_covid-19_crisis_2020.pdf Accessed April 30, 2020.

⁵⁸ Slavitt, Gottlieb, et al. Bipartisan Public Health Leaders Letter to Congress on COVID-19 Tracking and Tracing, April 27, 2020. <https://apps.npr.org/documents/document.html?id=6877567-Bipartisan-Public-Health-Leaders-Letter-on> Accessed April 30, 2020.