

Challenges in Translating National and State Reopening Plans Into Local Reopening Policies During the COVID-19 Pandemic

Public Health Reports
00(0) 1-5
© 2020, Association of Schools and
Programs of Public Health
All rights reserved.
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0033354920971721
journals.sagepub.com/home/phr



Joshua R. Vest, PhD, MPH^{1,2} ; Justin Blackburn, PhD¹; and Valerie A. Yeager, DrPH, MPhil¹

Keywords

public health, preparedness, pandemic, COVID-19

Pandemic events, such as coronavirus disease 2019 (COVID-19), affect health and economics at national and international scales, but in the United States, health care delivery and public health practice occur at the local level. Transmission control and eventual economic recovery require detailed guidance for communities, cities, metropolitan areas, and states. Our recent experience as consultants on the control and reopening plans for the city of Indianapolis and Marion County, Indiana, illustrated challenges with national plans, highlighted fundamental tensions in identifying the best course for policy, and emphasized gaps in the evidence base and our public health resources.¹⁻⁴

National Response and Reopening Plans Cannot Be Adopted Wholesale

To develop our recommendations to local public health leaders, we first turned to existing reopening plans for guidance as basic frameworks. The most prominent plans from think tanks and research groups like the American Enterprise Institute (AEI),⁵ the Center for American Progress (CAP),⁶ and others were helpful resources for conceptualizing thresholds for action and potential response options. We also reviewed the White House plan,⁷ given its media coverage and potential influence on the expectations of the public, business leaders, and local politicians. In taking on the formidable (and laudable) task of addressing a national problem, no one national plan can be specific enough or feasible for local implementation. The devil is definitely in the details, and the details left to local decision makers are not minor.

A key feature of reopening plans is meeting disease transmission thresholds or community levels at which risk is in balance with further steps toward reopening, such as a sustained downward trajectory of cases. The most obvious and first

question we faced was, “What do ‘trajectory’⁷ and ‘sustained’⁵ mean?” The plans we reviewed did not provide detailed definitions for appropriate thresholds, nor do any definitions readily exist in published literature. Translating such terms into actionable measures is difficult, but it is further complicated by the need to arrive at a definition that is acceptable among diverse audiences. For health and public health professionals steeped in data and statistics, these terms are worse than meaningless—they convey direction but are undefinable. Moreover, reporting delays, testing availability, and various methodologies for calculating positivity rates further limit definitive answers. At the same time, these measures are subject to interpretation by the public. Anyone with internet access can find out if cases, hospitalizations, or deaths from COVID-19 in their area are “going down.”⁸ This tension between various audiences’ perceptions of improvement in COVID-19 transmission at the community level is left to local leaders to navigate.

In addition, linear plans are easy to communicate because they provide a clear sense of direction, but they break down quickly once assumptions are challenged. Included in national and many state plans is the substitution of stay-at-home orders (and nonessential business limitations) for more widespread testing and contact tracing as the primary transmission control strategies. Testing and tracing are sound

¹ Department of Health Policy and Management, Indiana University Richard M. Fairbanks School of Public Health—Indianapolis, Indianapolis, IN, USA

² Regenstrief Institute, Center for Biomedical Informatics, Indianapolis, IN, USA

Corresponding Author:

Joshua R. Vest, PhD, MPH, Indiana University Richard M. Fairbanks School of Public Health, Department of Health Policy and Management, 1050 Wishard Blvd, Indianapolis, IN 46202, USA.

Email: joshvest@iu.edu

public health strategies, but what is the alternative if the necessary amount⁹ of adequate testing and contact tracing is not being achieved?

Applying one estimate of the rate of contact tracers required to keep up with new cases in Indianapolis would suggest the need to test more than 7000 people per day.¹⁰ Testing without accompanying contact tracing should not be expected to achieve the desired outcome. On April 29, 2020, Indiana announced a plan to hire 500 contact tracers¹¹—a welcome and needed addition to an understaffed public health workforce.⁴ Despite the increases in bachelor's-level and master's-level graduates trained in public health during the past 2 decades and the introduction of programs such as the Centers for Disease Control and Prevention's Public Health Associates Program,^{12,13} budget cuts in public health have reduced the size of the workforce rather than increased it.^{14,15} The Association of State and Territorial Health Officials estimates that Indiana needs 4 times the number of contact tracers the state is planning to hire.¹⁶ Although states and localities are grappling with the logistics of achieving these testing and contact-tracing goals, what do public health professionals do if these capacities are not in place? According to the guidance of national plans, including those of AEI, CAP, and the White House, a jurisdiction should not move forward with reopening. At the time of writing in mid-May, only North Dakota had met all transmission thresholds and public health infrastructure required to reopen,¹⁷ yet several states had lifted many nonessential business restrictions. Opening locations where social distancing is difficult (eg, bars, entertainment venues) will likely challenge the existing contact-tracing infrastructure, because these settings were associated with previous outbreaks of COVID-19.¹⁸

Also, the national plans by AEI and CAP did not, and likely could not, account for limitations in policy options that resulted from widely differential public health responses. Pressure to reopen can overwhelm local public health leaders, regardless of their capacity to test and trace contacts. Specifically, the authority of local public health jurisdictions to continue stay-at-home policies may not be feasible in light of public disapproval, which may intensify as neighboring states reopen, the federal government encourages reopening, compliance with social-distancing measures is inconsistent,¹⁹ and the state government moves forward with accelerated reopening guidance. Multiple cities (and counties) were in conflict with their own states concerning the strength of public health protections and were subsequently pushed into more widespread reopening.^{20,21} Effective policy requires the identification of feasible alternatives, even if that set of alternatives is limited. For example, in the absence of having full capacity to test and contact trace all COVID-19 cases, extending the number of days required to meet a "sustained downward trajectory," as outlined in the AEI, CAP, and White House reopening guidance, may be necessary. When pressure to reopen mounts, other strategies may be required, such as instituting random sample testing²² or increasing

enforcement of business compliance with evidence-based public health measures. In addition, the easing of restrictions on gathering sizes may also need to be delayed. Our team generated several such strategies in an effort to allow public health infrastructure to gain a foothold in reducing the transmission of COVID-19 and to ensure that the impact of easing restrictions was sufficiently monitored.

Reconciling the Irreconcilable

COVID-19 may be remembered as the disaster that created the zero-sum game between public health and the economy, at least for some policy makers.²³ The economy has been negatively affected: consumer spending decreased after stay-at-home orders were issued in March 2020.²⁴ Both economic and health needs of communities are real. In the United States, more than 200 000 people had died because of COVID-19 as of September 2020.²⁵ At the same time, the US unemployment rate more than quadrupled from January to March 2020, and although initial unemployment claims have fallen from the peak of 7 million per week, nearly 16 million people in the United States remain unemployed.²⁶ Any response and reopening plan must be attentive to COVID-19's threats to health and financial well-being.

For public health professionals, attention to health is natural. Attention to broader economics, however, may not be top of mind for public health professionals. (ie, none of the 10 essential public health services concerns personal finances).²⁷ As such, any public health-driven plan has the potential to inadvertently give inadequate attention to economic issues and needs. We found that considering issues of equity highlighted the need for a balanced approach that is attentive to both health assurance and business opportunities. Public health professionals understand the role of social needs and determinants as they relate to health. The cascading negative health effects from unemployment and a lack of financial resources²⁸ emphasize the need for policies that alleviate individual needs.

Other points of conflict are not so easy to reconcile. For example, individuals, businesses, and political leaders do not like ambiguity and uncertainty and, thus, many state plans set specific reopening target dates. Setting target dates for recovery meets the demand for clarity and offers reassurance of a return to some form of normalcy. However, the prevalence of asymptomatic carriers of COVID-19 and the extent of transmission are still unknown across most of the United States. Date-driven decision making is almost irreconcilable with data-driven decision making.

Dates anchor public and stakeholder expectations and, once set, are difficult to change. Postponing these dates, or reversing previous decisions to extend dates, becomes increasingly infeasible and potentially damaging because the public is less likely to follow the restrictions when messaging is not clear or consistent. When cases surge, dates must

change. Failure to meet expectations erodes trust in leadership, which may lead to poor adherence to crucial public health guidance.²⁹ Herein lies the fundamental problem.

Given the structure of the public health system, multiple and conflicting approaches to public health policy are inevitable. Despite pledges to coordinate reopening phases,³⁰ neighboring states are taking different approaches to disease control and economic recovery. Even within states, communities have socioeconomic geographies and networks that extend far past any single public health department's politically defined jurisdictions. People commute to work or travel to shopping centers. Some metropolitan areas span multiple states. Patients seek care across city and county limits.

Public health policy should reflect the intertwining of economics and society. Without the formalization of regional approaches to the public health system, public health leaders rely on post hoc collaboration or worse: pitting city, regional, and state policies against each other and creating confusion among the public.

The Evidence Base for Policy Formulation

An abundance of relevant information is available to support evidence-based policy making for local recovery planning. Through open-access policies, key information from current and past epidemics sheds light on incubation periods, the effectiveness of nontherapeutic interventions, and guidance for ensuring the health of institutional residents. Furthermore, expert opinions help fill in gaps. However, several issues are thorny:

- How many contacts can one disease investigator manage in a day?
- How many uninvestigated contacts or cases should indicate an insufficient public health response?
- How do we account for substantial changes in testing strategies (ie, health care workers only, to those with symptoms, or the general population) in establishing benchmarks for decision making?
- Does infection confer immunity?

Answers to such questions could reduce uncertainty about decision thresholds, staffing issues, and testing strategies. Moreover, how should the quality of the evidence be assessed? New research and data are coming out at a furious pace, but so are the retractions³¹ and shifts in expert opinion. The role of face coverings in public is a key example.³² We attempt to mitigate this risk by relying on findings from high-quality and high-impact scientific journals, but sometimes policy makers need a number or a date. When faced with no answer or a best guess, a best guess is the only choice.

Public Health Implications

A 2009 *New York Times* article opined, "America seems to have dodged a bullet with the swine flu epidemic, yet this

was more the result of the virus being less deadly than feared rather than of any government coordination. Despite billions spent since 9/11, we are still not well prepared to react to disease outbreaks, terrorist attacks and natural disasters."³³ More than 10 years later, coordination and preparedness remain challenging, and this time, we are not dodging the bullet. Local public health leaders and scientists have a duty to put forth data-driven recommendations to ensure the public's health and well-being.³⁴ However, national plans do not provide easy answers, and there are no viable off-the-shelf solutions for this disaster. The Centers for Disease Control and Prevention's wisdom was unavailable during critical times and is now arriving too late. Ultimately, the success of quarantine, isolation, social distancing, testing practices, surge capacity, contact tracing, face coverings in public, and a litany of other measures depends on strong voices by local public health leaders to influence local policy makers.

Acknowledgments

The authors thank the Marion County Public Health Department for the opportunity to provide support during this public health challenge. The authors also thank the staff at the Richard M. Fairbanks School of Public Health's Center for Health Policy for research support.

Declaration of Conflicting Interests

The authors declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: The authors and their school provide policy analyses and research support to state and local public health departments on routine bases.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Joshua R. Vest, PhD, MPH  <http://orcid.org/0000-0002-7226-9688>

References

1. Leider JP, Yeager VA, Orr J, et al. *Characterizing the Impact of the 2012 Institute of Medicine Report on Public Health Finance: A Final Report*. Public Health National Center for Innovations; 2019. Accessed July 29, 2020. https://phnci.org/uploads/resource-files/Impact-of-the-2012-IOM-Report_FINAL.pdf
2. Weber L, Ungar L, Smith MR, Recht H, Barry-Jester A. Hollowed-out public health system faces more cuts amid virus. Published July 1, 2020. Accessed July 29, 2020. <https://khn.org/news/us-public-health-system-underfunded-under-threat-faces-more-cuts-amid-covid-pandemic>
3. Council of State and Territorial Epidemiologists. Driving public health in the fast lane: the urgent need for a 21st century

- data superhighway. Published 2019. Accessed July 29, 2020. https://www.debeaumont.org/wp-content/uploads/2019/09/DSI-White-Paper_v15-Spreads.pdf
4. Draper DA, Hurley RE, Lauer JR. Public health workforce shortages imperil nation's health. *Res Brief*. 2008;4:1-8.
 5. Gottlieb S, Rivers C, McClellan M, Silvis L, Watson C. National coronavirus response: a road map to reopening. March 29, 2020. Accessed May 14, 2020. <https://www.aei.org/research-products/report/national-coronavirus-response-a-road-map-to-reopening>
 6. Emanuel Z, Tanden N, Spiro T, et al. A national and state plan to end the coronavirus crisis. Published April 3, 2020. Accessed May 14, 2020. <https://www.americanprogress.org/issues/healthcare/news/2020/04/03/482613/national-state-plan-end-coronavirus-crisis>
 7. The White House. Guidelines: opening up America again. 2020. Accessed May 14, 2020. <https://www.whitehouse.gov/openingamerica>
 8. Johns Hopkins University and Medicine. Coronavirus Resource Center. Accessed May 14, 2020. <https://coronavirus.jhu.edu>
 9. Romer P. Roadmap to responsibly reopen America. Published 2020. Accessed May 14, 2020. <https://roadmap.paulromer.net/paulromer-roadmap-report.pdf>
 10. Begley S. Many states short of COVID-19 testing levels needed for safe reopening, new analysis shows. Published April 27, 2020. Accessed May 14, 2020. <https://www.statnews.com/2020/04/27/coronavirus-many-states-short-of-testing-levels-needed-for-safe-reopening>
 11. Back on Track Indiana. Governor Holcomb's roadmap to safely reopen Indiana. Accessed May 14, 2020. <https://backontrack.in.gov>
 12. Wigington CJ, Colman LT, Sobelson RK, Young AC. Tracking public health workforce retention: observations from CDC's public health associate program. *Am J Public Health*. 2019;109(9):1202-1204. doi:10.2105/AJPH.2019.305156
 13. Yeager VA, Beitsch LM, Hasbrouck L. A mismatch between the educational pipeline and public health workforce: can it be reconciled? *Public Health Rep*. 2016;131(3):507-509. doi:10.1177/003335491613100318
 14. Beitsch LM, Yeager VA, Leider JP, Erwin PC. Mass exodus of state health department deputies and senior management threatens institutional stability. *Am J Public Health*. 2019;109(5):681-683. doi:10.2105/AJPH.2019.305005
 15. Sellers K, Leider JP, Gould E, et al. The state of the US governmental public health workforce, 2014-2017. *Am J Public Health*. 2019;109(5):674-680. doi:10.2105/AJPH.2019.305011
 16. Association of State and Territorial Health Officials. A coordinated, national approach to scaling public health capacity for contact tracing and disease investigation. Published 2020. Accessed May 14, 2020. <https://www.astho.org/COVID-19/A-National-Approach-for-Contact-Tracing>
 17. COVID Exit Strategy. Tracking our COVID-19 response. Accessed May 15, 2020. <https://www.covidexitstrategy.org>
 18. Parker-Pope T. A virus walks into a bar.... *The New York Times*. Published June 25, 2020. Accessed July 28, 2020. <https://www.nytimes.com/2020/06/25/well/live/coronavirus-spread-bars-transmission.html>
 19. Ipsos. IPSOS US COVID-19 aggregated topline report. Published June 11, 2020. Accessed June 23, 2020. <https://www.ipsos.com/sites/default/files/ipsos-coronavirus-us-aggregate-topline-061120.pdf>
 20. Grigg N. Coronavirus in Arizona: mayors, cities can't close parks, essentials without going through Governor Ducey. ABC 15 Arizona. Published March 24, 2020. Accessed July 29, 2020. <https://www.abc15.com/news/state/coronavirus-in-arizona-mayors-cities-cant-close-parks-essentials-without-going-through-governor-ducey>
 21. Cohen L. Georgia governor sues Atlanta mayor and City Council over mask mandate as state's coronavirus cases increase. *CBS News*. July 17, 2020. Accessed October 1, 2020. <https://www.cbsnews.com/news/georgia-governor-kemp-sues-atlanta-mayor-bottoms-city-council-mask-mandate-coronavirus/>
 22. Carroll AE. Opinion: too many states are flying blind into reopening. Not Indiana. *The New York Times*. Published May 13, 2020. Accessed May 15, 2020. <https://www.nytimes.com/2020/05/13/opinion/indiana-reopening-coronavirus-testing.html>
 23. Rodriguez A. Texas' lieutenant governor suggests grandparents are willing to die for US economy. *USA Today*. Published March 24, 2020. Accessed May 14, 2020. <https://www.usatoday.com/story/news/nation/2020/03/24/covid-19-texas-official-suggests-elderly-willing-die-economy/2905990001>
 24. Leatherby L, Gelles D. How the virus transformed the way Americans spend their money. *The New York Times*. Published April 11, 2020. Accessed May 14, 2020. <https://www.nytimes.com/interactive/2020/04/11/business/economy/coronavirus-us-economy-spending.html>
 25. Centers for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19): cases in the U.S. Published May 10, 2020. Accessed September 28, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>
 26. US Department of Labor. Unemployment insurance weekly claims. Published 2020. Accessed May 14, 2020. <https://www.dol.gov/ui/data.pdf>
 27. Centers for Disease Control and Prevention. 10 Essential Public Health Services. Published September 22, 2020. Accessed October 6, 2020. <https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>
 28. Ananat EO, Gassman-Pines A, Francis DV, Gibson-Davis CM. Linking job loss, inequality, mental health, and education. *Science*. 2017;356(6343):1127-1128. doi:10.1126/science.aam5347
 29. Glik DC. Risk communication for public health emergencies. *Annu Rev Public Health*. 2007;28:33-54. doi:10.1146/annurev.publhealth.28.021406.144123
 30. Sgueglia K, Kelly C. 7 Midwestern governors announce their states will coordinate on reopening. CNN. Published April 17, 2020. Accessed May 14, 2020. <https://www.cnn.com/2020/04/16/politics/midwest-governors-reopening-pact/index.html>

31. Retraction Watch. Retracted coronavirus (COVID-19) papers. Accessed May 14, 2020. <https://retractionwatch.com/retracted-coronavirus-covid-19-papers>
32. Elegant NX. Why the U.S. is changing its mind on coronavirus face masks. *Fortune*. Published April 3, 2020. Accessed May 14, 2020. <https://fortune.com/2020/04/03/coronavirus-face-mask-cdc>
33. Ganyard ST. Opinion: all disasters are local. *The New York Times*. Published May 17, 2009. Accessed May 17, 2020. <https://www.nytimes.com/2009/05/18/opinion/18ganyard.html>
34. Thomas JC, Sage M, Dillenberg J, Guillory VJ. A code of ethics for public health. *Am J Public Health*. 2002;92(7):1057-1059. doi:10.2105/AJPH.92.7.1057