EpiMonitor

Epidemiology for Epidemiologists

A monthly update covering people, events, research, and key developments

Editor's Note:

This month we are presenting a review of *Crisis Averted* by Caitlin Rivers. We also have reprinted a YLE interview with Dr. Rivers and a piece that she co-authored on communications. We are also pleased to be able to present the applied epidemiology workforce update from CSTE – the good, the bad, and the ugly. Finally we have highlighted the education offerings from around the world for January & February. From Boston to Melbourne there's something for everyone!

We continue to provide you with our popular monthly crossword feature, Notes on People, an overview of what we read from the public media, and a listing of upcoming epidemiology events. Finally, as we move into Fall hiring season, don't miss the Job Bank offerings this month. We have some fantastic opportunities advertised both here and on our website. Do you have a job opening to advertise? Contact us to see our variety of advertising options and pricing.

Did you miss last month's issue? ***Read it here:*** https://tinyurl.com/27phcfze ***or here:*** https://tinyurl.com/3e4c6m7p

In This Issue

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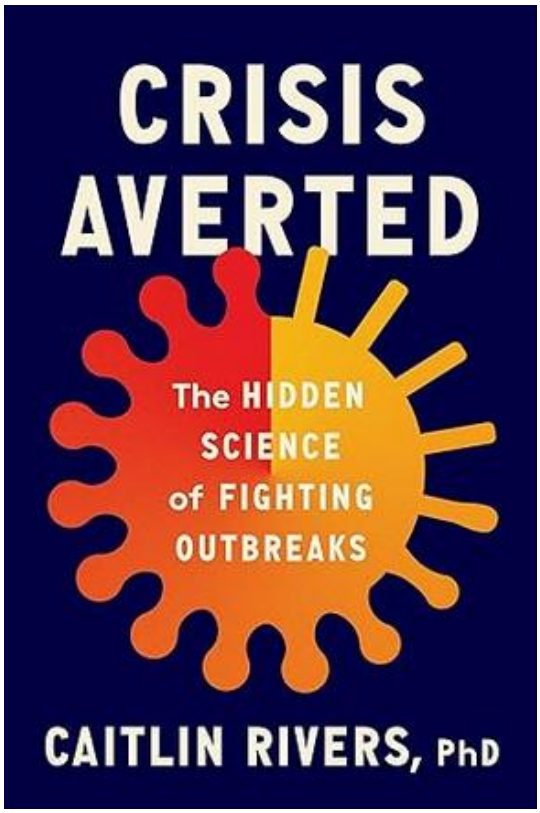
The Inverse Alchemy of Making Nothing Happen and the Enduring Paradox of Public Health: A Review of Crisis Averted

Author: Madeline Roberts, PhD, MPH



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If COVID-19 was an epidemiological war, then Caitlin Rivers is a tactical analyst, mining the archives of past epidemics and cultivating an arsenal for the next one, which she shares in her new book Crisis Averted: The Hidden Science of Fighting Outbreaks. Drawing on historic outbreaks and transferable lessons from other disciplines, she considers everything from the evolution of meteorological communication to spacecraft decontamination, each with the aim of preparing for and responding to epidemics.

But she has also been contemplating the inherent peculiarities and challenges of a field tasked with transforming something into nothing. "There is a common refrain in public health that captures this paradox: if we do our jobs right, nothing happens. An outbreak does not grow into an epidemic. A child does not go hungry…but because of the nature of our work, many successes go unnoticed. They are evident only in the suffering there might otherwise have been."

Crisis Averted brings into focus the incongruous oddities of working in a field where success, by definition, means something did not occur. Perhaps at least part of what it is to be an epidemiologist is to belong to a collective of professionals able to see the world inverted as though through photo negative—what isn't there, what didn't happen.

A recent analysis projected that of approximately 117 million children born between 1994 and 2023, routine childhood immunizations will prevent an estimated 508 million illnesses, 32 million hospitalizations, and upward of one million deaths. This translates to an estimated savings of $540 billion in direct medical and non-medical costs and $2.7 trillion in societal costs, the latter of which includes productivity losses from premature death and disability and opportunity costs for parent work absences attributable to caring for sick children. We have seen astounding improvements in child mortality. In 1800, for every one thousand babies born, approximately 46% did not live to see their fifth birthday; by 1900, this decreased to around 23%, and in 2020, 0.7%. Much of this is attributable to simple, not-at-all glamorous advancements such as sanitation and immunizations.

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But prolonged gains can have an obscuring effect. Rivers writes of adenovirus outbreaks within military training settings, which historically afflicted nearly 50% of new recruits. The development of a military immunization program in 1971 drastically reduced this and prevented an estimated 27,000 hospitalizations. The immunizations were so effective for approximately two decades that the program languished, and vaccine production was discontinued in the mid-1990s. Within months, adenovirus returned, resulting in hundreds of preventable hospitalizations and two deaths of otherwise healthy young men. Rivers writes, "Over the years, the scourge of adenovirus epidemics became a distant memory. Military health professionals knew of the threat in *abstract*, but they had personally witnessed only the absence of disruption [which] did not equip them with the urgency needed to maintain defenses."

While devoting an entire chapter to novel technologies and their myriad benefits, Rivers argues that we cannot allow fundamental investigative work to be eclipsed by biomedical technological innovations. "For the most important disease detective work, all that is needed is a trained investigator, a notebook or tablet, and a calculator…don't let the low-tech simplicity fool you. The power of collecting and collating this information is extraordinary." Indeed, with a hand-drawn dot map, meticulous detective work, and a pen in 1854 London, John Snow was able to approximate the work of modern GIS applications. For all the advances AI has ushered in, Rivers argues that large data models cannot provide nuanced details about case commonalities among the infected or where the problem is concentrated, details upon which investigations can turn. She stands by the humble line list as the most indispensable tool for outbreak investigation.

Much of the work of public health now lies in rebuilding relationships and reconfiguring health communication in the post-pandemic social and political landscape. Rivers does not gloss over crucial public health communication errors: "Even when the best way forward is clear, sometimes public health is clumsy at making the case…the job of public health experts is to give people clear guidance about what they will face and how they can protect themselves." Establishing true partnerships between public health workers and their communities opens a path for collaborative surveillance, preparation, and education.

Crisis Averted chronicles many of the triumphs and shortcomings of public health but also includes the raw reflections of someone who has disabused herself of pretense to take an honest look at the failings of our field along with its real potential at this moment.

Rivers underscores the importance of unembellished, fundamental epidemiological investigative work, which is at the front line of virtually every outbreak and precedes innovations such as novel vaccines. She reflects on a saying from defense experts: "You go to war with the army you have, not the army you might want or wish to have at a later time," which, in this case, comprises the people trained and tasked with making nothing happen.

■

Applied Epidemiology Workforce Update: CSTE 2024 Epidemiology Capacity Assessment Results

Author: Madeline Roberts, PhD, MPH

This month, the Council of State and Territorial Epidemiologists (CSTE) released the Epidemiology Capacity Assessment (ECA) to describe and identify the needs of the applied epidemiology workforce. The first ECA assessment was conducted in 2001, with subsequent assessments occurring approximately every 2 to 4 years, the most recent of which was in 2021. All 50 states and DC are evaluated. The assessment was 42 questions, seven of which were open-ended, allowing for qualitative data collection. Remarkably, the ECA reported a 100% response rate.

There are currently 5,706 epidemiologists employed in the 50 state health departments, 38% more than the last ECA in 2021 and the highest number recorded by the ECA. However, to meet essential public health needs, 2,537 additional epidemiologists are needed. In lower capacity areas such as tribal and oral health, the absolute number of additional required epidemiologists was comparatively small, but the percentage increase was striking. For example, tribal health needs to increase capacity from 9 to 30 epidemiologists—a 242% increase in workforce capacity.

States report substantial capacity for monitoring and assessing health problems but need more support for research and evaluation. A prime example of this is access to peer-reviewed literature, which in many instances is not open-access and often requires these epidemiologists to wait between 24 and 72 hours to be granted access. Seven of eight territories are unable to access peer-reviewed literature.

What skills can be built within the workforce?

Data analytics remains the top training need across departments, as reported by 43 states, consistent with previous years' ECA findings. Specifically, there is consensus that outbreak forecasting and disease transmission modeling are critical for future public health emergencies and decision-making. Still, most states currently need more staff capacity to support this work. Building persuasive communication skills was also noted as a development area, a vital skill as public health shifts attention to messaging and mitigating misinformation.

Funding

Public health is bracing for a forecasted loss of approximately 1,000 staff members (nearly 20%) with the termination of pandemic funding. Currently, federal funding comprises 83% of financing for all epidemiologic activities and 84% of funding for personnel; states contribute, on average, approximately 15% of funds. Consistently sustained funding is one of the primary concerns for public health. Top priorities for funds include modernizing data infrastructure and data skills training for staff.

How can we help retain epidemiologists?

A study from 2017 to 2021 found that by 2021, 49% of all state and local public health workers staff left their posts, and turnover was highest

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among those with the shortest tenure (5 years or less). For younger workers, pay was the primary impetus for considering job separation. Other factors contributing to job separation included job-related stress, burnout, and hostility toward public health workers.

The ECA found that cultivating job interest and fulfillment, offering opportunities to work remotely, and providing job benefits were advantageous for recruitment and retention. Key strategies for mitigating burnout were similar and included allowing remote work, a flexible work schedule, and fostering supportive relationships within the workplace. Conversely, state, county, and territorial epidemiologists are historically underpaid at every point in their career trajectories: "Like previous years, epidemiologists are starting at inadequate base salaries and often not receiving regular increases to cope with inflation and the increased cost of living. In an era of increasing education costs and student debt, the salaries offered by health departments are likely to be even less competitive than in the past." Offering competitive salaries to qualified individuals remains a daunting challenge within constrained budgets.

Recommendations

The ECA noted that partnerships and pipelines with academic institutions can create pathways for skilled public health workers to make an impact in public health departments where they are greatly needed. EpiMonitor has previously reported on such partnership programs at Yale, UC Berkeley, and Emory. One point of interest for The Rollins Epidemiology Fellowship at Emory is that it achieved consistent funding primarily through philanthropic foundations, and the program successfully contributed to reinvigorating Georgia's public health workforce.

Achieving sustainable funding, creating a comprehensive data science curriculum, and providing on-the-job training for current staff would all contribute to a public health workforce ready to meet the demands of emerging disease threats. The future of the applied epidemiology workforce may seem tenuous given recent diminished funding, but the work remains essential to prepare for future outbreaks. ■

Focus on Communication

Authors: Katelyn Jetelina, PhD, MPH
Caitlin Rivers, PhD, MPH

A new bill introduced in Congress calls on the U.S government to focus on combating misinformation. The "zero draft" of a proposed international pandemic treaty calls on member states to do the same. The FDA is zeroing in on misinformation. Webinars galore are focusing on fighting misinformation to build trust. Even public libraries and schools are entering the fight against fake news.

These efforts are amongst the latest in a wave of initiatives—and for good reason. Social media sites are flooded with inaccurate, misleading, and sometimes nefarious messaging about science and health. Too often, these falsehoods get traction. Researchers have found that the modern information ecosystem allows false news to spread six times faster, more broadly, and by more people than the truth.

Public health has not kept up.

The field has stumbled in communicating effectively during times of crisis. During the pandemic, ineffective or absent risk communication left people scrambling for up-to-date and relevant information about their health and safety. (Hence YLE was born.) Concurrently, producers of disinformation were busy intentionally sowing doubt and confusion. Together, these obstacles created an impossible landscape for people to navigate when making decisions about everyday life, like whether and when to travel, wear a mask, see grandparents, or attend a party.

Meanwhile, researchers and policy experts are producing a steady stream of proposals to prevent the next pandemic. Too often, these plans do not even contain the word "communication." *What good is faster vaccine development if uptake is poor?* If no one is proactively anticipating concerns, listening to people on the ground, and addressing their information needs from a place of empathy and authenticity, *how will we influence evidence-based decision-making?*

We are on the wrong path.

The wellspring of misinformation is effectively infinite compared to the scant resources of public health. It is unlikely that we will ever get ahead of the deluge. But there is another way forward: we must focus instead on getting our own house in order by improving core communications.

Communications should feature in every pandemic preparedness and response plan, with the same seriousness of purpose as vaccine development or diagnostic testing. Supporting people with readily available, relevant, detailed information will help to restore confidence in public health and address the systemic weaknesses that encouraged people to turn to misinformation in the first place.

The biggest gaps in public health information are timeliness and volume. Messaging is too slow and too scant to meet the need. Public health organizations and officials must get more comfortable communicating quickly, continuously, and with empathy. For many

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organizations, this means expanding (or just creating) the scientific communication workforce. Officials must recognize that communicating with the public is an essential part of their mission, and energy and time allocations must reflect that. Also, the clearance processes for communication products must be dramatically thinned. Onerous clearance processes discourage frequent information sharing and can inadvertently erode key messages.

Once the systems and people are in place, the content of what is communicated is critical. Crisis communication should not serve the interests of the players, but of the people. This means that messaging cannot hasten to reassure how much is being done by the responsible parties or how under control the situation is. The proper goal of communication is to tell people honestly and clearly what the situation is, what risks they face, and what they should do to keep themselves and their families safe. Missteps can be avoided by properly acknowledging uncertainty: *What do we know? What do we not know? And how are we trying to find answers?*

Knowledge translation also must come from a place of empathy. People do not turn to media companies for their news. They turn to anchors and reporters whom they come to know and trust—warm bodies that they can relate to and who appear consistently over time. We don't give the public enough opportunities to see and trust warm bodies in public health. Messages must be delivered by real people, preferably the same people, in a style that feels human.

These challenges don't just apply to a pandemic. Health emergencies happen all the time, from the mpox outbreak to the earthquake in Turkiye to the train derailment in East Palestine, Ohio. Communities are starved for good information, leading to unnecessary anxiety, confusion, frustration. That void is often filled with misinformation. Going forward, the public health community should double down on bolstering frequent, reliable communications for these crises—instead of attempting to bat back the torrent of misinformation.

Bottom line

Public health is unlikely to "win" at combatting misinformation, at least in the near term. We win by earning the ear and the trust of the public, and we do that by communicating honestly, frequently and directly. We must not lose sight of that mission. I'm afraid it's a lesson we haven't yet learned. ■

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Why is US National Data So Terrible?

Authors: Katelyn Jetelina, PhD, MPH
Caitlin Rivers, PhD, MPH

Originally published by YLE on May 22, 2022

A week or two ago, I got an unexpected call on my cell phone. It was Rochelle Walensky. Yes, the Director of the CDC. Apparently she (and many others at the CDC) are big YLE fans! Which is... wild.

During our conversation, the topic of data came up. *Why are we flying blind in the U.S.?* She connected me with Caitlin Rivers. Dr. Rivers works at Johns Hopkins and was recruited by the CDC in 2021 to help open their new Center for Forecasting and Outbreak Analytics. I had so many questions for her, like: *Why is our national data so abysmal? Why don't we collect antigen tests to better understand community transmission? Why don't we have real-time data, like the U.K. or Israel, to assess vaccine effectiveness? How can we fix all of this?* She was kind enough to let me record our conversation. Thought you would appreciate the answers to these questions! The recording is above, the transcript below.

Transcript

Dr. Jetelina: Hi YLE Universe, this is Katelyn, Your Local Epidemiologist. You finally have a face and a voice, although I do have a cold right now, but I'm really excited because this is obviously something very different than what I've been doing on this platform for the past two years. I'm actually going to be playing reporter for once and talking to one of my pandemic heroes. A week or two ago, Director Walensky put me in contact with *the* Caitlin Rivers. Dr. Rivers is an assistant professor at the Center for Health Security at Johns Hopkins School of Public Health, and she actually focuses on public health preparedness, which we obviously desperately need going forward. But in 2021, I believe, she was snatched by the CDC to serve in a temporary role as Associate Director to their new center, which is called the Center for Forecasting and Outbreak Analytics. It's new, but the whole point is to improve outbreak response using data, using modeling, using analytics, and also, like I heard this morning, using communication, which I'm super excited about. And boy do we need it. So, I understand that she will return to Johns Hopkins once the center has gotten off the ground. So Caitlin, welcome! Thank you so much for taking time this morning.

Dr. Rivers: Yeah, thanks for having me! I'm glad to be here with you. And we share a namesake, so that's always exciting.

Dr. Jetelina: Yeah, I know! Katelyn, epidemiologist, is talking to Caitlin, epidemiologist. So, I guess I'll just dive in. So throughout this pandemic we've been flying blind. It's been [for] many reasons, but one of the biggest is we just don't have national data to drive data-driven decisions proactively in real time. I think a classic example of this is vaccine effectiveness. We just don't know how well our vaccines are working right now in the face of new variants, over time, and we constantly really have been looking to other countries like the U.K. or Israel to help guide our decisions in the United States, [and] we are a very different population than them. So, Dr. Rivers, what's going on? Why are we in this position right now?

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Dr. Rivers: Well, we're not where we want to be with our public health data, and that's something we're working really hard on at CDC. Part of the reason that we have not had the insights that our colleagues from the U.K. or Israel have had, there's a few reasons. The first that you'll hear, and most often repeated, is that we don't have a national health system, unlike those other two countries, and that is a struggle. Our public health is federated—our state and local jurisdictions are each kind of independent entities that collect and share data according to their priorities and their specifications. And that is different from places where everyone receives their medical and public health services from a national network. But there's actually another issue, that doesn't get as much attention, that I think is a bigger problem for how we collect and share data in the United States, and that's that the CDC doesn't actually have the authority to direct data collection. We get all of our data through individual data-use agreements with every jurisdiction on basically every public health issue. And you can imagine, it's a pile of paperwork that is slow and cumbersome and particularly in a fast moving health emergency, that infrastructure is just not really well suited to collecting and sharing data.

Dr. Jetelina: I guess that means, also, we are dependent on how they collect that data, so the rigor of it. And then also what they agree and don't agree to share. Is that right? I mean they can say no.

Dr. Rivers: They can say no, yeah. Luckily we have a good relationship with our public health partners, but it's a precarious situation, because if the DUA doesn't go through, if the various people who have to sign it are on leave, if there is some sort of point of friction, they can take their data and they can go home really, so that the CDC doesn't have the data that it needs to be able to understand what's happening in the communities across the country. But, I do want to highlight one thing you said at the beginning which is the different data elements. It's a little bit of a wonky thing that like epidemiologists care a great deal about, but the importance of it might not be immediately apparent, but if every jurisdiction is collecting different data or collecting it in different ways, it's really hard to aggregate that into a national picture that really gives us a sense of what's happening across the country. And I think race and ethnicity is one example that stands out to me. We were very late in the pandemic to recognize the disparities across race and ethnicity, the disparate impacts, and that's because many jurisdictions didn't collect race and ethnicity, or they collected it in ways that didn't make sense when you aggregated it to the national picture. And the CDC doesn't have the authority to really standardize that, and that's part of the reason why there are gaps in our understanding.

Dr. Jetelina: Yeah, the other thing that I've noticed is—and I would be curious to hear your perspective—is age. So, for example, like with kid data, right? So, some, I feel like some jurisdictions report just all those under 18, some of them report in buckets and these are different buckets, and so when you start combining all of them, you don't know what basically the rate is for under fives compared to adolescents on a national level. And that seems, you know, that's important because we have such—even though some states are really rigorous in their data, we need it across the plane because we're so huge and we're so diverse that, people in Texas, for example, are very different and they're in a different environment, genetics, than those in New York,

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for example. So, yeah, I hear that and I've seen that too. Now what data are we talking about? Are we just talking about vaccine data or is this across the board?

Dr. Rivers: It's across the board. There are a few exceptions like the Nationally Notifiable Disease System, that is a compulsory report to CDC in a standardized way. But, for basically all other data, this is how it works. What many people don't realize is that the hospitalization data for Covid, for example, is tied to the public health emergency declaration. When the declaration goes away, which it will, our ability to require reporting of the Covid hospitalization data will go away. There are a few fixes in the works, like CMS, I think has recently extended the hospitalization data, but I'm using that as a window into a wider set of problems that our data flows are really precarious and it puts us in a tight spot.

Dr. Jetelina: In the same vein right now, I think it's really difficult because we know that we're severely under-reporting cases right now and this is problematic because we are asking people to make their individual decisions, based on metrics in their county and we just don't know the level of transmission. For example, one I saw was that for every 100 cases, only 7 are officially reported. And that's for a lot of reasons, but one of them is because of at-home antigen testing. Is that the same deal? Like I know some jurisdictions have put in systems for antigen testing, but not all of them, and so is that why we don't have a national picture?

Dr. Rivers: I think the antigen testing is also a technical problem since there are not great systems to be able to capture what results people are recording at home. But to the extent that we're thinking about cases, hospitalizations, and those metrics are subject to these limitations where we get what the states have voluntarily agreed to give us.

Dr. Jetelina: Yeah, I would just feel like, maybe in the future I mean, can't we just put together a website on CDC and just throw out a campaign and be like, “Hey, can you guys just please report your antigen test?” so we have some understanding of that on a national level, or is that just not feasible?

Dr. Rivers: Well, that reminds me of like the Flu Near You work that Harvard Children's Hospital has been leading for years, and there's now a Covid Near You, and I think those kinds of projects can be interesting windows into what is happening in communities. It's just hard because it's subject to so many biases, like who is receiving the messages that they should be reporting? Who has access and time to be able to do that? And then without a denominator, it's also hard, like I have trouble making sense of what to do with that data, but I think these non-traditional approaches for doing surveillance are really interesting. And particularly for us, at the Center for Forecasting and Outbreak Analytics, modeling can be an interesting approach for weaving together these different data sources, sort of making them more than the individual parts.

Dr. Jetelina: Yeah, absolutely. So what I understand—we have this decentralized system in the United States, and the CDC asked for the national picture. That report, that data, gets collected at the local level and then reported up to the CDC. And so what that means is you guys are dependent on, or we are dependent on, local jurisdictions either being excited to share this data and really on the ground, or local

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jurisdictions being like, “No, we don't want to share this.” So what's the scoop? Are you allowed to share like which states or which local jurisdictions have been super helpful and others that haven't?

Dr. Rivers: Well, I'll just highlight that the status quo is not that great for states either. It's great that they're able to control their data and they are the ones at the front lines of the community. But for example, if you look at the cases of acute hepatitis that are kind of popping up, we're still really learning what's happening, where they're happening—it's the very beginning of the investigation. But the states are asking CDC, “What's going on with acute hepatitis?” But if we don't have—if we can't look across states, if we're waiting for the states to report voluntarily, it's slow. And so it's hard for the states too to understand what's happening with their neighbors, what's happening across the country, because the system is just a little bit gummed up.

Dr. Jetelina: Yeah, that makes a lot of sense. And I would assume that, I mean, willingness to share over time changes with the normalization of a pandemic and people wanting, like some states or jurisdictions, wanting to move on and some others saying, “Hey, this is still a problem.” Have you seen that kind of change and willingness to share over time?

Dr. Rivers: I think the importance of public health data has changed, like it's more widely recognized now as like practically a national sport to check your local Covid levels. And so I think the importance of public health data has really changed over time. Willingness, I'm not sure we've seen any major differences just because Covid is not the first time that we’ve faced, that we've tried to manage public health surveillance in this way. It's a long-standing set of relationships, but I think that our collective understanding of why it's so important to have high quality, timely detailed public health data is at an all-time high.

Dr. Jetelina: Finally! Finally, we epidemiologists have been shouting from the rooftop, so I guess that's, I don't know, a silver lining to the pandemic. So one thing you actually mentioned briefly at the beginning—and I wanted to dive into this a little more—is that the importance of this emergency order and how we expect that will be lifted probably this summer through whispers. But what are the implications of that, I mean, what's going to change? Are we going to be flying blind even more?

Dr. Rivers: Hopefully not, but it's possible. There are a lot of data streams tied to the public health emergency declaration. Hospitalizations is always the first one that comes to my mind because it's so important for the community burden indicators that CDC is using to tell people what the risk is in their communities. Hospitalizations is tied to the public health emergency declaration. CMS, just this week, released a rule that I think is going to extend the reporting through 2024, so maybe we have a little bit longer of a runway for that, but there's also cases, there's electronic lab data, there's all sorts of data streams—and I don't have the full list but it's quite extensive—of what is tied to emergency declaration. And so I do think that there will be changes in our ability to understand what's happening with Covid.

Dr. Jetelina: And for everyone listening, can you describe what CMS is?

Dr. Rivers: CMS is the Centers for Medicaid and Medicare Services. It is the government agency that provides Medicare and Medicaid coverage

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to millions of Americans, and they have an enormous role in policy making because they provide so much coverage to just so many people. They are able to have great influence on data reporting, for example.

Dr. Jetelina: So once the emergency order is lifted and, say, CMS continues to work their butts off to figure out a way about hospitalizations, but even that then is a biased sample. That's not a very good generalizable sample if we're just looking at Medicaid and Medicare, right? Because we have an entire population that's also insured through private insurance, no?

Dr. Rivers: A little bit over my skis here, but I think because CMS covers so many Americans, that when they set a policy like that, it generally is far reaching enough that we'll get data beyond the covered population.

Dr. Jetelina: So at least some kind of general understanding of, like, how well our vaccines are working. The other thing that has been interesting is the "with Covid" and "for Covid" hospitalizations. And that seems to be very dependent on local jurisdiction as well, right? So that's why, for example, the CDC can't report that on a systematic level?

Dr. Rivers: That is tied to our inability to require reporting of certain data elements. It's up to jurisdictions to decide that they want to collect that data and to report it to us and because it's just not a priority everywhere, our picture is uneven.

Dr. Jetelina: Yeah, okay, so my last question for you: how do we fix this? I mean, so the virus is going to continue to change. We know that, we expect it's going to continue to mutate and then, also, this isn't going to be the last virus. I mean like you said, we're seeing acute hepatitis, we are seeing Ebola over in Africa right now, we're seeing avian flu virus. I mean, how do we fix this? It seems pretty ingrained in our culture and systems in the United States.

Dr. Rivers: Yeah, so CDC, with support from Congress, is investing about 1 billion dollars in improving the public health data infrastructure at the state and local level. We want to make it as easy and as technologically modern as possible to collect and report public health data, and so we have a big project, investing a lot of money in making that possible at the state and local level. But there is still this authorities piece where we may make those investments and not necessarily receive that data, and so I think updating our authorities to be able to synchronize and standardize our data reporting would improve our ability at CDC to understand what's happening in communities across the country and improve the ability for state and local jurisdictions to understand what's happening with their neighbors and what do they need to be aware of across the country. So I think that was one outstanding piece that would really help us to improve our public health data picture.

Dr. Jetelina: Now, in the first thing you said was money, which is obviously incredibly important, but isn't—because the CDC is under Congress's authority, I mean can't that money leave too? Or, I mean, or is that kind of guaranteed support? I don't know how that works.

Dr. Rivers: The money that we are investing in the data modernization initiative has already been appropriated, so it's going out.

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Dr. Jetelina: Okay, awesome. But for future, it may or may not be there.

Dr. Rivers: That's right.

Dr. Jetelina: Okay. Interesting, well that's slightly terrifying, but at least it's coming on the ground. Well, thank you so much, Caitlin, for providing your insights! Is there anything else that I missed that you want to share?

Dr. Rivers: Yeah, thanks for the opportunity. Any CMS experts out there, I'm sorry I bungled your important role that CMS policy plays in our public health and medical system, but I'm glad for the opportunity to share a little bit more about how public health data works.

Dr. Jetelina: All right, thank you so much, Caitlin. Bye, everyone! ■

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Caitlin Rivers, PhD, MPH, is an assistant professor and epidemiologist at the Johns Hopkins Center for Health Security. She has her own newsletter called Force of Infection: https://caitlinrivers.substack.com/

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The EpiMonitor Guide to Winter Programs 2025

Author: Staff

On New Year's Eve each year the EpiMonitor publishes an annual event calendar and then in February we publish an issue dedicated to summer programs. However this means that the programs which run in January-February of each year aren't published early enough for our readers to make their plans to attend.

These programs include Winter Programs in North America and Europe along with Summer Programs in the southern hemisphere. This year we have elected to provide you with the information necessary to choose a program and register in time to attend.

January 4-17, 2025

Johns Hopkins Bloomberg School of Public Health Winter Institute
https://tinyurl.com/3457t58x

The Winter Institute offers approximately 30 different courses of varying lengths. The courses are offered in different formats depending on the class. There are courses on the Baltimore and DC campuses along with courses offered online. The link above provides more information on the individual offerings.

Winter 2025

Winter Courses in Epidemiology – EpidM
Department of Epidemiology and Data Science, Amsterdam UMC
EpidM- Secretary; +31 20 566 6691 or +31 629131812
epidm@amsterdamumc.nl https://tinyurl.com/yzaen625

EpidM offers 8 courses in its Winter Course Series. These range from half day offerings to 6 days long. Courses are offered in Amsterdam although two of them are online. All of the courses are taught in English and have a cap of 30 students in each class.

January 20-25, 2025

16th Swiss Epidemiology Winter School
https://www.epi-winterschool.org/

This program runs in Wengen, Switzerland and takes full advantage of the surroundings to offer breaks for skiing and snowboarding. A robust social program allows ample opportunity to meet with your classmates in an informal environment. There are 8 individual classes offered this year taught by over a dozen faculty members.

- Winter cont'd on page 15

- Winter cont'd from page 14

February 10-14, 2025

Winter School in Clinical Epidemiology - Hall in Tirol
Sponsored by UMIT Tirol https://bit.ly/3lRZeDf

This 5 day program is taught by a 3 member team. There are no pre-requisites and it is taught in English. The course covers: Intro to Public Health & Epidemiology, Risk & Treatment Prognosis, Treatment Efficacy & Safety, Study Design & Diagnosis, Decision Analysis in Public Health & Medicine.

January 20 – February 14

ACSPRI Summer Program 2025 https://tinyurl.com/hszbmsn8
Run with the University of Melbourne

This is the 41st year of this Australian program. This year a series of courses will be offered on the University of Melbourne campus February 3-7. The remainder of the classes will be offered online. This year there are a total of 20 class offerings taught by a dozen faculty members. Pricing is dependent on ACSPRI membership.

Call for 2025 Events

Do you have an event scheduled for 2025? We are starting the process of building our calendar for next year and we need your event listings to make them available to all.
There is NO CHARGE for this listing.

To list your event we need:
Event Name, Date, URL, Sponsor(s), Location
We also need to know what type of an event it is:
Conference, Meeting, Short Course, or Summer Program
and whether or not it is a virtual, hybrid or in-person event.

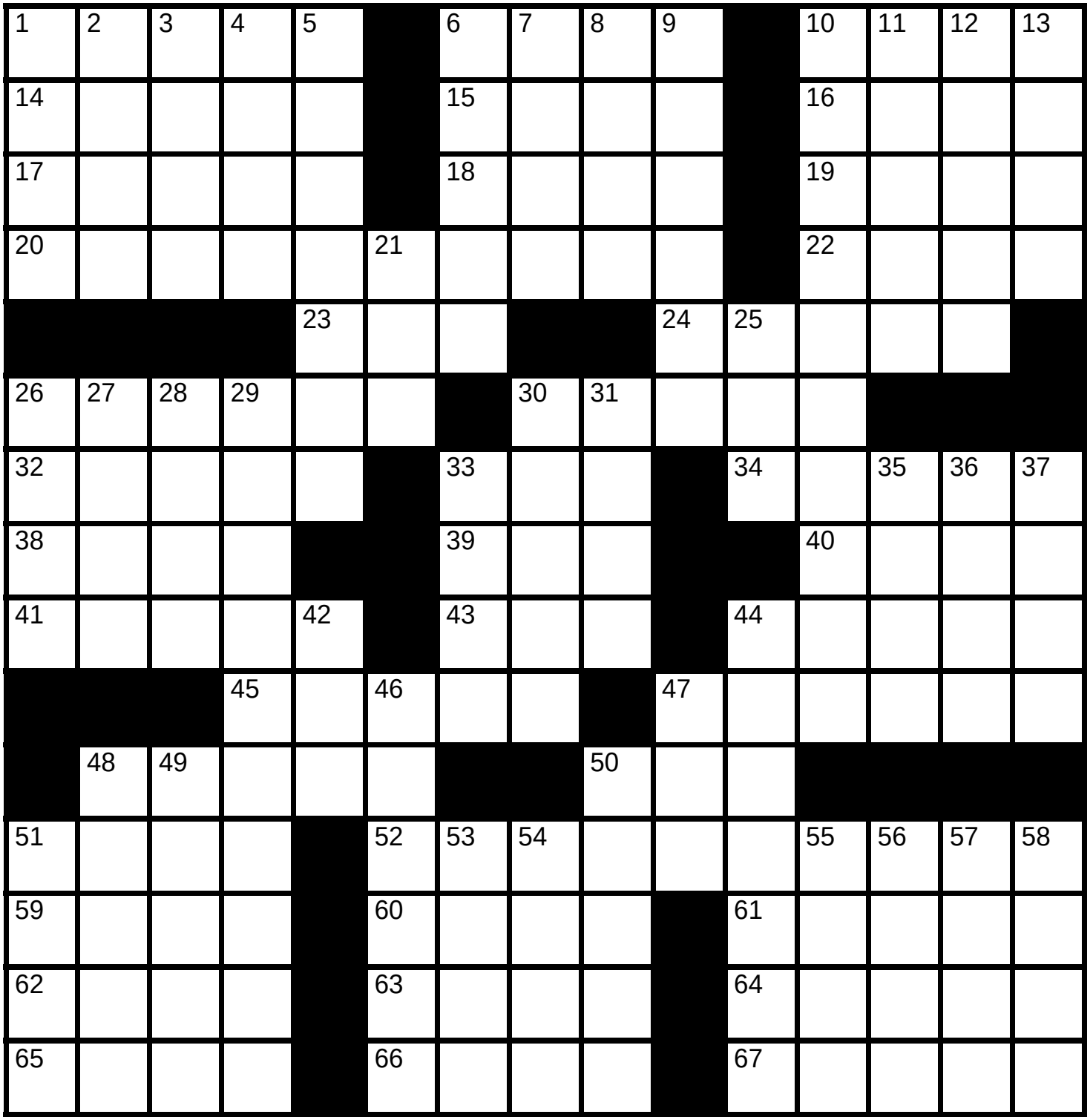
We publish our full year calendar at the end of December each year. At the end of February we publish a special edition about summer programs worldwide. We invite you to submit events for both publications.

For more information please contact:

Michele Gibson / michele@epimonitor.net

Epi Crossword Puzzle – October 2024
Where in the World is that SPH

Our crossword puzzle was created by by Dr. Richard Dicker—A former CDC employee and a not-quite-retired epidemiologist. For an online version go to: https://tinyurl.com/bddm9avu



- Crossword Questions cont'd on page 15

-Crossword Questions cont'd from page 13

Across

1. Kermit's instrument
6. On ___ (without a contract)
10. Bonny one
14. "Here's looking ___, kid"
15. Home of Machu Pichu
16. Published remembrance, for short
17. Take with force
18. Ear-related
19. "Twilight," for one
20. *City of Fay W Boozman SPH*
22. Sore from exercise, say
23. Squid squirt
24. Sounds from a sty
26. Like some distributions
30. Together (with)
32. "Horrible" comic character
33. WHO's global vaccination initiative (abbr.)
34. ___ position
38. H's on some college houses
39. Bigger than med.
40. Word before Star or Ranger
41. Home of India EIS programme
43. Singer with the 2016 #1 hit "Cheap Thrills"
44. Isabella, por ejemplo
45. Big name in chips
47. *City of TH Chan SPH*
48. Melted cheese dish
50. Partner of poivre
51. One year in a trunk
52. *City of Gillings SPH*
59. Syllabus section
60. Big rig
61. Ancient Aegean region (land of Greek columns?)
62. Dry, like some Spanish wine
63. Gathering clouds, say
64. Sign seen at some service stations during hurricane evacuation
65. Tree of Knowledge site
66. First number of Alaska zip codes
67. Be on the court for tipoff, say

Down

1. Wail
2. Longfellow's "The Bell of ___"
3. Putin's refusal
4. Johansson's hubby
5. 20 in distribution of 1, 0, 2, 1, 20, 3, 1, 0, 1, 2
6. Hybrid utensil
7. Knighted epidemiologist who worked with Doll
8. Explorer called "the Red"
9. Bird in a Kesey title
10. *City of Jonathan and Karin Fielding SPH*
11. One way to be taken
12. Venice's Bridge of ___
13. Fido command
21. Conclude
25. Like Beethoven's Sixth Symphony
26. What many furry animals do in the spring
27. First name of this publication's editor, to her friends
28. Un + quatre vis-à-vis deux + trois
29. *City of Milkin SPH*
30. Tax filing month
31. La _____ (Spanish fútbol division)
33. Ultimatum ender
35. "Hop ___!"
36. The "A" in A.D.
37. What Jack Sprat's wife could not eat
42. Neither Rep. nor Dem.
44. *Name of Atlanta-based SPH*
46. *City of Mel and Enid Zuckerman SPH*
47. Drone, e.g.
48. What speeding driver might get, if caught
49. Chilled
50. Vertebra locale
51. Trick
53. Prefix with sphere
54. End of grace
55. Owl sound
56. Lab assistant in "Young Frankenstein"
57. Word repeated before "pants on fire"
58. He developed the *Dictionary of Epidemiology*

What We're Reading This Month

Editor's Note: All of us are confronted with more material than we can possibly hope to digest each month. However, that doesn't mean that we should miss some of the articles that appear in the public media on topics of interest to the epi community. The EpiMonitor curates a monthly list of some of the best articles we've encountered in the past month. See something you think others would like to read? Please **send** us a link at info@epimonitor.net and we'll include it in the next month.

Public Health Topics

- Communicating science to a skeptical public: A conversation with "Your Local Epidemiologist" Katelyn Jetelina (Harvard)
  https://tinyurl.com/y74ftkp9

- This AI Godfather Says AI Is Dumber Than a Pet Cat (WSJ)
  https://tinyurl.com/yybnh3m6

- Political Polarization Poses Health Risks, New Analysis Concludes (NYU)
  https://tinyurl.com/27fujuby

- As Helene's immediate impacts recede, a public health threat rises (NC Newsline)
  https://tinyurl.com/4vvyscv9

- Scurvy hasn't completely disappeared – and there's a group of Canadians that is particularly at risk (Globe and Mail via AppleNews)
  https://tinyurl.com/yvr524x4

- Health on the Ballot: School of Public Health Doctoral Students Create Nonpartisan Voting Guide (Maryland Today / University of Maryland)
  https://tinyurl.com/saup42vb

- C.D.C. Expands Covid Vaccine Recommendations (NYT)
  https://tinyurl.com/ddxuy3vk

- Malaria Is Surging in Ethiopia, Reversing a Decade of Progress Against the Disease (NYT)
  https://tinyurl.com/2axkh6rb

- Emails Reveal How Health Departments Struggle To Track Human Cases of Bird Flu (KFF Health News)
  https://tinyurl.com/vuy2nt5e

- Reading cont'd on page 19

Public Health, *continued*

- Adding up the Public Health Costs of Using Coal to Make Steel (Inside Climate News)
  https://tinyurl.com/454dycb4

- Louisiana's creative new ways to fight maternal mortality (STAT)
  https://tinyurl.com/4nzz2pns

- Video shows dead cows with bird flu. Is enough being done to stop the spread? (USA Today via AppleNews)
  https://tinyurl.com/44y8kyj2

- Is It Covid or the Flu? New Tests Can Check for Both (NYT)
  https://tinyurl.com/bdhev6uf

- As Bird Flu Spreads, Additional Human Infection Is Reported in Missouri (NYT)
  https://tinyurl.com/yc5wamrs

- Anthony Fauci: A Mosquito in My Backyard Made Me the Sickest I've Ever Been (NYT)
  https://tinyurl.com/4wuku3kc

- Zika is Still Spreading. Why Don't We Have A Vaccine Yet? (VOX via AppleNews)
  https://tinyurl.com/yer9ss6f

Join the EpiMonitor on our Facebook page at:
https://bit.ly/2U29gUA

or on Twitter at: @theEpimonitor

or on Instagram at: @epimonitor

Notes on People

Do you have news about yourself, a colleague, or a student?

Please help The Epidemiology Monitor keep the community informed by sending relevant news to us at this address for inclusion in our next issue. people@epimonitor.net

Honored: Clarice Weinberg, Ph.D., was awarded the 2024 Jeanne E. Griffith Mentoring Award — the highest honor of its kind to a statistician in federal, state, or local government. The annual award in recognition of a mentor's support and development of junior staff is presented by the American Statistical Association.

Weinberg, a principal investigator in the Biostatistics and Computational Biology Branch, has mentored nearly 40 students and postdoctoral fellows, and served on the thesis committees of more than twenty Ph.D. students during her career at NIEHS. She also has published and worked with biostatistics and epidemiology trainees on nearly 200 scientific articles

Honored: The National Academy of Medicine has announced 100 newly elected members. **Jennifer Nuzzo** MA'23, director of Brown's Pandemic Center, made the list. Nuzzo, who is also a professor of epidemiology, was selected after co-creating the inaugural Global Health Security Index, which assesses 195 countries' preparedness for epidemics and pandemics. She was also highlighted by NAM for her COVID-19 testing global data tracker, a resilience checklist for biological emergencies and her extensive research in US infectious disease threat readiness.

Awarded: The Boston University Department of Biostatistics is pleased to announce that **Nandita Mitra**, PhD will be the recipient of the 2024 L. Adrienne Cupples Award for Excellence in Teaching, Research, and Service in Biostatistics. Dr. Mitra is Professor of Biostatistics Professor of Biostatistics in the Department of Biostatistics, Epidemiology and Informatics at the Perelman School of Medicine, University of Pennsylvania. Briefly, the Cupples award was created to recognize a biostatistician whose academic achievements reflect the contributions to teaching, research, and service exemplified by Professor L. Adrienne Cupples. Dr. Mitra was selected because of her substantial achievements in each of these areas. Dr. Mitra is currently Vice Chair of Education and Co-Director of the Center for Causal Inference in the Department of Biostatistics, Epidemiology and Informatics at Penn.

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Awarded: Trinity College has awarded alumna **Kaja LeWinn** the Trinity College President's Award for Science and Innovation**.** Driven by a conviction that all children should have the opportunity to realize their full potential, Trinity College alumna Kaja LeWinn '98 has dedicated her work to studying the neurodevelopment and mental health of the youngest members of society. LeWinn is a leader of several regional and national epidemiological studies, including the NIH funded ECHO Consortium, which includes over 60,000 U.S. children and their families.

Awarded: University of California – Merced **s**econd-year public health Ph.D. student **Sarina Rodriguez** was named as a Health Policy Research Scholar by the Robert Wood Johnson Foundation. The HPRS program supports doctoral students from underserved and underrepresented demographics and brings together students from various fields to apply their expertise to policies that advance equity and health. According to the foundation's website, the leadership program connects "changemakers across the country — from diverse professions and fields — to learn from and work with one another in creating more just and thriving communities."

Named: Joseph Amon, PhD, MSPH, has joined the Johns Hopkins Bloomberg School of Public Health as director of the Center for Public Health and Human Rights. Amon, whose work focuses on neglected diseases and populations, comes from Drexel University's Dornsife School of Public Health, where he served in several positions, including director of the Office of Global Health, director of the Jonathan Mann Global Health and Human Rights Initiative, and clinical teaching professor in the Department of Community Health and Prevention. He is also the editor-in-chief of the *Health and Human Rights Journal*, which is co-published by Drexel in collaboration with the FXB Center for Health and Human Rights at Harvard University.

Appointed: Vanderbilt University Dept of Biostatistics has promoted **Brant Imhoff** to the position of senior biostatistician. His support for projects at the Vanderbilt Biostatistics Data Coordinating Center, Pragmatic Critical Care Research Group, and other teams has included leading DSMB (data and safety monitoring board) closed session meetings for multiple clinical trials; constructing, maintaining, and monitoring electronic data captures; generating statistical analyses, custom reports, and billing; and working on manuscripts and study analysis plans, with co-authorship of peer-reviewed papers published in the *New England Journal of Medicine*, *American Heart Journal*, and *BMJ Open*.

Notes on People

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In the News: Flojaune Cofer, the epidemiologist and leading candidate in Sacramento's mayoral race, will always remember watching her father die from congestive heart failure in 1993. She was 11, the same age he'd been when he started smoking cigarettes back in the late 1950s, when little was known about the health impacts of tobacco. By the time the Surgeon General issued the first report on the negative effects of smoking, it was too late for Cofer's dad; he was already hooked. The traumatic experience of seeing her father lose his life from something so preventable stayed lodged inside Cofer, pushing her to get a PhD in epidemiology, pursue a career in public health policy, and eventually get involved in her adopted city's budgeting process.

Passed: Richard Allen Cash passed away on October 22, 2024. He graduated from the University of Wisconsin–Madison, then New York University School of Medicine. After interning at Bellevue Hospital, Richard relocated to Dacca, East Pakistan to work at the Cholera Research Laboratory (CRL): now the International Centre for Diarrheal Diseases, Bangladesh (ICDDR,B). That decision shaped his career and life. Bangladesh remained a touchstone in Richard's life. He returned annually to work with the ICDDR,B and teach at the BRAC School of Public Health. He also lived, worked and taught in India. Beginning in 1977, Richard made Cambridge, Massachusetts his home base, teaching at the Harvard (T.H. Chan) School of Public Health and running projects for the Harvard Institute for International Development. Richard deeply influenced countless students. https://tinyurl.com/yxrhr632

Passed: Dr. Frank L. Mitchell, a dedicated public servant and passionate craftsman, passed away at the age of 89 on October 13, 2024. In Miami he was the Senior Medical Officer for the Cuban Rescue Program, and was on the first flight sent to Cuba to rescue those fleeing Cuba after its takeover by Fidel Castro. He later transferred to the National Institute for Occupational Safety and Health (NIOSH) in Bethesda, MD where he served 10 years as the Senior Reviewer of the team that identified Superfund sites and wrote regulations for safely dealing with hazardous substances in the workplace and the environment. He rose to the role of Chief Medical Officer for the Agency for Toxic Substances and Disease Registry in Atlanta. His expertise and leadership left a lasting impact on Public Health including his contributions to the treatment and handling of individuals experiencing Multiple Chemical Sensitivity. https://tinyurl.com/58unc5u2

Near Term Epidemiology Event Calendar

Every December The Epidemiology Monitor dedicates that issue to a calendar of events for the upcoming year. However that often means we don't have full information for events later in the upcoming year. Thus an online copy exists on our website that is updated regularly.
To view the full year please go to: http://www.epimonitor.net/Events The events that we are aware of for the next month follow below.

November 2024

November 5-8 https://tinyurl.com/7tcjta6b
Short Course: Leadership Development to Advance Equity in Healthcare / Harvard Unversity / Online

November 5-9 https://tinyurl.com/y2nzvpry
Conference: American Society for Human Genetics 2023 Annual Meeting / ASHG / Denver, CO

November 11-17 https://tinyurl.com/euzkrjhw
Conference: 17th International Symposium of Veterinary Epidemiology and Economics (ISVEE 17) / Multiple / Sydney, Australia

November 12-15 https://bit.ly/3jcNVcY
Conference: 17th World Congress on Public Health / European Public Health Association / Lisbon, Portugal

November TBD http://tinyurl.com/4j7weh3y
Short Course: Principles of Public Health / Erasmus MC / Rotterdam, The Netherlands

November TBD https://tinyurl.com/2a679m9p
Conference: IGES 2024 / International Genetic Epidemiology Society / Nashville, TN

December 2024

No events scheduled this month

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or on Instagram at: @epimonitor

HARVARD T.H. CHAN | SCHOOL OF PUBLIC HEALTH

Department Chair & Professor

The Harvard T.H. Chan School of Public Health (Harvard Chan School) invites applications for the position of Department Chair and Tenured Professor in the Department of Social and Behavioral Sciences (SBS). We seek an innovative scholar and visionary leader to direct a large, diverse, multidisciplinary department. The successful applicant will have an outstanding record of academic and research accomplishments, demonstrated leadership and administrative abilities, and a compelling vision for the department.

The Candidate

The successful candidate will advance the department's mission by fostering and expanding research activities, enriching the educational mission and trainee experience, attracting and mentoring early-career faculty, and providing strategic and tactical leadership at the levels of the department, School, and University. They will also be able to articulate a long-term vision for the future of the department to address existing and anticipated academic and research needs and to advance public health, both around the corner and around the world. As part of a world-class team of deans and department chairs, the chair of SBS will work laterally and vertically to address both broadly shared and distinctly local challenges and to advance the School's mission of improving health and promoting equity so all people can thrive.

Please apply to: https://academicpositions.harvard.edu/postings/14103 *Applications should be received no later than December 1, 2024, when the search committee will begin reviewing candidates.*
More information:

Memorial Sloan Kettering Cancer Center

Postdoctoral Fellows / Oncology-Focused Population Sciences

MSK welcomes applications for Postdoctoral Fellows who wish to pursue training in Oncology-Focused Population Sciences. MDs and PhDs who wish to pursue advanced research training and receive intensive mentorship in any area of cancer-focused population sciences are encouraged to apply.

OPTICS (Oncology focused Postdoctoral Training In Care Delivery and Symptom Science) is funded by an NCI-T32. It affords trainees protected time and access to resources to support intensive focus on an impactful research project. The program focuses on training aligned with one of 4 themes: Data Science, Risk Mitigation, Symptom Science or Care Delivery. Fellows do not need to have a specific project or mentor identified to apply.

This is a great opportunity for MDs or PhDs interested in pursuing a research career in any area of cancer-related population sciences, including but not limited to cancer data science, symptom control and survivorship, health informatics, cancer care delivery, implementation science, and epidemiology.

To apply, please head to our website, www.mskcc.org/optics, and submit your application materials to Samantha Vasquez at vasques2@mskcc.org by Friday, January 31, 2025. You must be a researcher with a MD/DO or PhD/ScD and a United States citizen or permanent resident (green card holder).
More information:

Course: Communicating About Science

Katelyn Jetelina, MPH PhD—epidemiologist and scientific communicator—will share the lessons she learned during COVID-19 of rapidly communicating and translating public health science to the general public and trusted messengers. She will share pro tips along the way so epidemiologists can integrate effective communication into every aspect of their job to positively impact their community.

Use this link to sign up for Dr. Jetelina's Your Local Epidemiologist newsletter with a 40% discount.

Lesson 1 Integrating Knowledge Translation into Public Health Practice

By the end of the lesson, participants will be able to:

1. Distinguish the difference between scientific writing with scientific communication to the public.
2. List and apply four key considerations before developing content for knowledge translation.
3. Define the key principles of information design, including clarity, simplicity, hierarchy, and visual appeal.
4. Describe the role of visual elements, such as images, charts, graphs, icons, and typography, in enhancing the clarity and accessibility of written products.
5. List several user-centered design methodologies and how they can provide critical feedback to communication strategies.
6. Use social listening, such as focus groups, readability assessments, and usability testing, to gather feedback from target audiences and iteratively improve the design and content of public health written materials.

This training series was funded by CDC Cooperative Agreement No: 1 NU38OT000297-03-00. The contents of this training are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

Competencies:

- 1.8 – Data Analytics and Assessment Skills – Interprets results from data analysis
- 2.2 – Public Health Sciences Skills – Collaborates with others to support public health activities
- 3.1 – Communication Skills – Determines communication strategies
- 3.3 – Communication Skills – Facilitates accessible communication among individuals, groups, and organizations
- 3.4 – Communication Skills – Disseminates messages to internal and external audiences
- 4.2 – Community Partnership Skills – Maintains bidirectional relationships that improve community health and resilience

Click here for more information: https://tinyurl.com/mryup4yc

Dartmouth GEISEL SCHOOL OF MEDICINE

Open Rank Faculty Tenure-Track

The Department of Epidemiology within the Geisel School of Medicine at Dartmouth, the Dartmouth Cancer Center, and the Center for Molecular Epidemiology invites applications for an open rank tenure-track position. We seek applicants to lead an independent, innovative research program in areas of cancer-focused epidemiology. Possible areas of focus include molecular, life course, nutritional, and/or environmental epidemiology and/or the exposome. Research in novel areas of cancer epidemiology related to DCC's Precision Cancer Prevention initiative are particularly encouraged. The Dartmouth Cancer Center (DCC) is an NCI-designated Comprehensive Cancer Center, and the Center for Molecular Epidemiology is a NIGMS Center for Biomedical Research excellence. Both offer a dynamic and interactive environment with a commitment and resources to support research excellence and career advancement. The faculty appointment will be in the Department of Epidemiology, with membership in the DCC Cancer Population Sciences research program with additional potential for membership in the Center for Molecular Epidemiology and other programs throughout the medical school and college.

Qualifications
Candidates must have a Ph.D. and/or M.D. degree and relevant postdoctoral research experience.

Application Instructions
Applicants should upload a cover letter, a curriculum vitae (without impact factors), a description of proposed research (3 pages or less), a teaching statement, and a statement on how their teaching, research, service, and/or life experiences prepare them to advance diversity, equity, and inclusion at Dartmouth through the interfolio link provided. Three referees should provide letters of recommendation. *Consideration of applications will begin on November 15th, 2024, and continue until the position is filled.*
https://apply.interfolio.com/99545

For further information check here: http://epimonitor.net/2024-3903-Epidemiology-Job-Opening.htm

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Advertising Sales
Michele Gibson
sales@epimonitor.net

Contact Us
The Epidemiology Monitor

info@epimonitor.net

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