

## Why it's essential to improve data collection and reporting

---

Watch the AMA's daily COVID-19 update, with insights from AMA leaders and experts about the pandemic.

### Featured topic and speakers

AMA Chief Experience Officer Todd Unger speaks with health care professionals on updates regarding the COVID-19 pandemic including the need for improved data collection and reporting on COVID-19. Learn more at the AMA COVID-19 resource center.

#### Speakers

- Andrea Garcia, JD, MPH, director, AMA Science, Medicine and Public Health
- Laura A. Conn, MPH, eCR lead, Public Health Informatics office, Centers for Disease Control and Prevention (CDC)
- Janet Hamilton, MPH, executive director, Council of State and Territorial Epidemiologists

### Transcript

**Unger:** Hello, this is the American Medical Association's COVID-19 update. Today, we'll be discussing the need for improved data collection and reporting on COVID-19. I'm joined today by Laura A. Conn, electronic case reporting, or ECR, lead in the Public Health Informatics Office at the Center for Surveillance, Epidemiology and Laboratory Services within the CDC in Atlanta, Andrea Garcia, the AMA's director of Science, Medicine and Public Health in Chicago, and Janet Hamilton, executive director on the Council of State and Territorial Epidemiologists in Atlanta. I'm Todd Unger, AMA's chief experience officer in Chicago.

Access to complete and accurate data, including data that reflects race and ethnicity, has been difficult during this pandemic. Ms. Garcia, why is this data so important, and why is it not readily available?

**Garcia:** Thanks, Todd. I think we all have seen that this data is really important, so to help us understand the magnitude of the health problem, to understand the distribution of illness in populations and to understand whether control interventions are working. Is the shelter in place order flattening the curve? We know that COVID-19 is a reportable condition in all U.S. jurisdictions. That means that health care providers, hospitals and labs have to report confirmed or suspected cases to public health agencies.

But as you alluded to, we've seen incomplete data. The AMA reached out to public health colleagues early on to inquire about the availability of race and ethnicity data. And what we heard from public health was that this data isn't being included in case reports. 85% of the case reports that our health departments are receiving don't include race and ethnicity data.

And when we think about why that is, we know a lot of health care providers have adopted EHR, but for most, this is still a manual process, so physicians have to call, fax or mail these reports in to their health department, and that's time consuming, and it's a disruption to their workflow. AMA's Council on Science and Public Health just studied this issue six months ago, and what we recommended and what the House of Delegates adopted was a policy calling for the modernization of public health surveillance systems, funding to support that and for the adoption of electronic case reporting, or ECR, which is the automatic generation and transmission of case reports from the EHR to the public health agency.

**Unger:** Well, speaking of modern collection data, Ms. Conn, talk to us about the role that ECR plays in gathering data.

**Conn:** Sure. Thanks, Todd. ECR can alleviate that burden that Andrea spoke about by automating these case reports, flowing, using data in the electronic health record and sending that over to public health for review and action. This fulfills their mandated requirement. It does not disrupt their workflow, and it increases the access and timely, high-quality data available for public health. It also allows for public health to provide information back to health care providers in the context of that patient, the condition that they have. They can provide information around what's going on in that jurisdiction, for example. They might provide treatment guidelines or isolation guidelines, depending on the condition that was determined reportable.

Anecdotal evidence of electronic case reporting in the context of COVID is showing that data pulled directly from the health record, as opposed to manual reports, is providing more complete data, particularly on race and ethnicity that has been easily combined, then, with lab reports that the health care agent or, excuse me, the public health agencies are receiving and making that a more complete record for their use.

**Hamilton:** Yeah, this is Janet Hamilton from the Council of State and Territorial Epidemiologists, and CSTE as a group represents those epidemiologists in state and local health departments that are actually doing what I call the "boots on the ground" work. And it's really challenging for them right now. Andrea's talked about some of those challenges. But what we're seeing is, despite the fact there's been this amazing transformation in health care to include new digital tools and ways of doing business, on the public health side, it's startling that our processes are paper-based when it comes to case reporting activities. And that partnership between clinicians and public health is so vital and so important because it's the individual that shows up in a clinician's office that is the event that leads to a case report being able to be put together to be generated for public health, whether that's on paper or what we're hoping to do is move that to an electronic process.

It's really staggering to see that this need for effective prevention, detection and response right now is being so delayed because we're not getting the data out of health care. It's stuck right now, and what that means for us on the public health side then too, is that we start doing our investigation based off of receipt of some type of data or information. And in today's world, if the patient's address is missing and on a lab result, right now, it's missing around 50% of the time. We can't tell you where the hotspots are. If the patient's phone number isn't there, we're never calling that patient as soon as we receive the data. We have to first actually contact the clinician's office to try and get these additional pieces put together. And it takes time to digitize paper, as well as we want this giant picture of data, which aggregates each clinical practice together.

So it's not just those patients that went to one clinical practice, but the entire picture. And right now we have holes in that picture. It's like a puzzle without puzzle pieces because we're not getting all of those critical data elements coming in to public health. And it's painful to be asked questions like, "How many cases are there in my community?" "How many pregnant women have had COVID-19?" "What does it look like in my community?" And we want to provide the answers to those questions. We have the tools and the capacity to aggregate it all together. It's just, we're never getting that data. The data is stuck at the door.

**Unger:** Well, given those challenges, it's understandable that all three of you are promoting electronic case reporting. Ms. Conn, what is ECR Now, and how does it support the COVID-19 response?

**Conn:** ECR Now is an initiative that has come together with CSTE, the Association of Public Health Laboratories and CDC to really focus on COVID-19 reporting using this electronic case reporting infrastructure that's in place, and it has three components.

The first is to do rapid cohort implementation with health care organizations that have an electronic health record that have electronic case reporting capability now. And the second component has been to develop, rapidly develop an ECR Now fire app that can be used by electronic health record vendors that didn't yet have electronic case reporting capability and to integrate that into their product and make that available to their clients and health organizations very quickly to put in place. And the third

is to expand upon the trust network that is in place that allows these data to flow between health care and public health. ECR is already part of the eHealth Exchange, but there has been a rapid expansion to include Carequality and working with them so that members of the Carequality network can also take advantage of that.

We've been able to move ECR Now rapidly for COVID. We have onboarded, in the last month, around 2000 facilities that come to us from around 17 organizations, and we've seen over 460,000 case reports electronically flow through this and received in 32 different public health jurisdictions for use.

**Unger:** Ms. Hamilton, any additional perspective?

**Hamilton:** I think the ECR Now project, it's a collaborative, as Laura mentioned, and what we're really hoping to do with this is to be able to transform how we do business. We have recognized for a long time about the data challenges that public health is facing, and COVID-19 just highlights those data challenges. It's a pandemic. There are so many individuals that are being impacted. It's a disease that spreads very rapidly with short incubation periods, and we have to transform the way that we do business. We're so excited for the partnership. We're working with AMIA, as well, and moving this forward, and we can do this.

The other thing that's really wonderful about electronic case reporting is that it provides much richer information. So some of the things that have made the news are the race and ethnicity, but we also want to describe very well for people and the clinical community, what are the really big comorbidities associated with this? Tell us more about which treatments are working and which ones aren't? We will have a vaccine, hopefully, one day. What's the proportion of individuals that become ill after they've maybe been immunized or partially immunized?

And the electronic case report builds all of those pieces together and allows that information to flow right into public health. The other thing I might just highlight for this group is it's not additional clicks. The way that this functions is it's in the background, so as the data and information is being recorded through the normal health care visit process, it's there, and then ECR just allows it to move from health care into public health. It's like plugging in the EHR to public health.

**Unger:** Ms. Conn, what does it take to implement ECR Now, and how long would it take a health system to get it up and running?

**Conn:** Great, so we have many organizations that are implementing now, and those that have previously have done so in as little as three days. So we really do have a compressed approach for implementation to have this data start flowing into public health. And our ask now of the community and your members are to implement now. Get this data flowing as we start, the country starts opening up, and we need to track cases and understand what's going on, this data is more critical now than ever to get flowing into public health, so we really have a true picture of what's going on with this

condition as we go through the summer and into the fall and additional activities start happening again.

**Unger:** COVID-19 has demonstrated the consequences of having an antiquated data system, on both the outbreak detection and response. Ms. Garcia, how can physicians help ensure that the necessary data is getting to public health agencies?

**Garcia:** I think we've heard a lot about the importance of ECR, and we know some EHR vendors are offering incentives for providers who adopt this. So we would encourage all health care professionals to reach out to their EHR to see what the availability is and to work toward electronic case reporting. The other thing I would just note is that we also would really like to stress that the information should be included on lab orders. So some of the information we see on that is just what's required for billing, so name, date of birth or gender. If you can look at what is being sent with your lab order, if it's contact information, race and ethnicity data, that will help ensure that our public health agencies are getting that critical information.

**Unger:** Well, thank you very much. That's it for today's COVID-19 update. I want to thank Laura Conn, Janet Hamilton and Andrea Garcia for joining us today and sharing their perspective. Note that providers are welcome to reach out to [ecr@cdc.gov](mailto:ecr@cdc.gov) for more information, and for additional resources on COVID-19 go to [ama-assn.org/COVID-19](https://ama-assn.org/COVID-19). Thanks for being with us here today and take care.

---

**Disclaimer:** The viewpoints expressed in this video are those of the participants and/or do not necessarily reflect the views and policies of the AMA.