

STATE OF MINNESOTA

IN SUPREME COURT

A21-0359

Court of Appeals

Chutich, J.
Dissenting, Thissen, J.

State of Minnesota,

Respondent,

vs.

Filed: February 8, 2023
Office of Appellate Courts

Kim Marie Tate,

Appellant.

Keith Ellison, Attorney General, Lydia Villalva Lijó, Assistant Attorney General, Saint Paul, Minnesota; and

Brian W. McDonald, Becker County Attorney, Detroit Lakes, Minnesota, for respondent.

Cathryn Middlebrook, Chief Appellate Public Defender, Richard Schmitz, Assistant State Public Defender, Saint Paul, Minnesota, for appellant.

S Y L L A B U S

1. The two-part test set forth in *Maryland v. Craig*, 497 U.S. 836 (1990), applies to determine whether a defendant's right to confrontation under the Sixth Amendment of the United States Constitution and Article I, Section 6, of the Minnesota Constitution has been violated when a witness testifies during trial by use of live, two-way, remote video technology.

2. The defendant's right to confrontation under the federal and state constitutions was not violated when the district court permitted one witness to testify using live, two-way, remote video technology during a jury trial because the remote testimony was necessary under the circumstances then presented by the COVID-19 pandemic, and the testimony was sufficiently reliable.

Affirmed.

OPINION

CHUTICH, Justice.

The issue raised by this case is whether a criminal defendant's right to confrontation under the Sixth Amendment of the United States Constitution and Article I, Section 6, of the Minnesota Constitution is violated when a district court allows a witness to testify using live, two-way, remote video technology during a jury trial in the midst of the COVID-19 pandemic. Appellant Kim Marie Tate was charged with the third-degree sale of a controlled substance. During her jury trial, the district court allowed one of the State's five witnesses to testify via Zoom¹ after the witness was exposed to COVID-19 and forced to quarantine. After the jury found Tate guilty, she challenged her conviction on appeal, arguing that her constitutional right to confrontation was violated when the district court allowed the witness to testify via Zoom. In a precedential opinion, the court of appeals

¹ Zoom is a cloud-based technology platform used for live, two-way video conferencing. The Minnesota Judicial Branch used Zoom during the COVID-19 pandemic to conduct remote hearings and to facilitate remote testimony in certain matters.

affirmed the decision of the district court to allow the remote testimony. *State v. Tate*, 969 N.W.2d 378, 381 (Minn. App. 2022).

We hold that *Maryland v. Craig*, 497 U.S. 836 (1990), sets forth the appropriate test to assess whether a Confrontation Clause violation under the federal or state constitutions has occurred. Applying that test to the circumstances presented here, we conclude that Tate’s right to confrontation was not violated when the district court allowed one of the State’s witnesses to testify via Zoom because the remote testimony was necessary under the circumstances then presented by the COVID-19 pandemic, and the testimony was sufficiently reliable. Accordingly, we affirm.

FACTS

In March 2018, three law enforcement agents from the West Central Minnesota Drug and Violent Crimes Task Force—one lead investigator and two additional task-force agents—worked with a confidential informant to conduct a controlled buy of methamphetamine from appellant Kim Marie Tate. The task-force agents and lead investigator provided the confidential informant with an audio recording device to track the buy. They then conducted surveillance during the controlled buy while listening to the audio device’s live feed. After the sale, the confidential informant met with the agents and lead investigator to turn over the 1.265 grams of methamphetamine purchased from Tate. Respondent State of Minnesota charged Tate with third-degree sale of a controlled substance in violation of Minnesota Statutes section 152.023, subdivision 1(1) (2022).

After a series of delays—including four successful requests by Tate for a continuance of the trial—the trial was set for November 16–17, 2020. During this time,

the nation was dealing with a second wave of high COVID-19 infection rates, vaccines were not yet available, and Minnesota set a grim new record of daily deaths from the virus.² The state court system was then operating under a statewide order governing criminal jury trials, requiring district courts to comply with the Minnesota Judicial Branch’s COVID-19 Preparedness Plan. Operations of the Minnesota Judicial Branch Under Emergency Executive Order Nos. 20-53, 20-56, No. ADM20-8001, Order at 2 (Minn. filed May 15, 2020).

Four days before trial, the lead investigator on the case was exposed to COVID-19 and advised by public health officials to quarantine.³ The State asked the district court to allow the lead investigator to testify via Zoom because his testimony was “fundamental” to its case. The district court held a pretrial hearing to consider the State’s request. Tate objected to the remote testimony. She contended that it would prejudice her case because remote testimony lessens the ability of the jury to observe witness demeanor and the ability of the court to monitor whether a witness is using impermissible materials during the witness’s testimony. Tate asked the district court to continue the trial instead.

² Emerg. Exec. Order No. 20-97, *Extending the COVID-19 Peacetime Emergency Declared in Executive Order 20-01* (Nov. 12, 2020).

³ At this point during the COVID-19 pandemic, the Centers for Disease Control and Prevention (CDC) recommended a 14-day quarantine for anyone exposed to a known case of COVID-19. David J. Sencer, *CDC Museum COVID-19 Timeline*, CDC.gov, <https://www.cdc.gov/museum/timeline/covid19.html> (last visited Nov. 2, 2022) [opinion attachment]. Vaccines were then still in the clinical trial phase and not available to the general public. *Id.*

The district court granted the State's request to allow the lead investigator to testify via Zoom. The court emphasized its concern for "the safety of anyone who will be in the courtroom" during the jury trial and their potential for exposure to COVID-19. Acknowledging that the "confrontation clause does reflect a preference for in-person testimony," the district court stated that in-person confrontation is "not an absolute right." The court found that the use of Zoom for live video conferencing testimony was an acceptable alternative to testifying in person under certain, exceptional circumstances. The district court reasoned that the "pandemic, even of itself" would likely qualify as a valid reason for remote testimony to ensure that a trial would "not expos[e] any attorneys or court staff or jurors to unnecessary risk of the disease spread[ing]."

The court noted that whether jury trials will continue to be held in Minnesota may be under review in the near future, "but for now there have been no changes, and trials are to continue." The district court also stated the following:

I do want the largest possible screen available so jurors can view and actually see the witness while he is testifying, and if it takes longer to fully complete any cross-examination because of Zoom, we'll take as much time as necessary to make sure the defendant's rights for cross-examination are vindicated.

Before trial began, the district court entertained further argument on Tate's motion for a continuance and whether remote testimony was permissible under the Confrontation Clause. The district court reiterated its concern that "the pandemic puts us into a different area as far as safety of court personnel." The court stated, "I am not suggesting that the criminal backlog is in any way a reason for not observing constitutional rights, but I do think that the constitutional rights are protected in this matter." The district court cited the

risk of “exposure to court staff, jurors, lawyers, in bringing someone in that is known to have been in contact with someone, whether or not they do or don’t have symptoms.” In addition, the court noted that additional guidance may be issued from our court “on what type of trials are going to go forward, but as of today the rules haven’t changed.”

On the first day of trial, two task-force agents testified in person. Each agent testified about the standard task-force procedure to conduct a controlled buy and stated that the controlled buy in Tate’s case followed protocol. Before the buy, the confidential informant and his car were searched, and the agents then provided the informant with pre-documented cash and an audio transmitting-and-recording device. The agents testified that through that device and its live feed, they were able to monitor the entire controlled buy. After the sales transaction was completed, the agents again met with the confidential informant, collected the methamphetamine purchased from Tate, and searched the informant and his car.

An analyst from the Minnesota Bureau of Criminal Apprehension next testified in person. She confirmed that testing showed that the substance purchased from Tate was 1.265 grams of methamphetamine.

The lead investigator testified via Zoom the next day. The district court broadcast the testimony to the jury using a 65-inch screen. Before the lead investigator testified, the district court gave the jury the following cautionary instruction:

Our first witness today will be appearing on the video screen remotely. That is a result of the pandemic. But you are to judge the credibility just as a live witness with the factors that I had given you, and any other factors you believe bear on the credibility and weight; that that is to be considered live

testimony, to be judged as you have been judging the credibility of any other witness that appears live.

Under oath, the lead investigator confirmed that he was alone and would only reference court-approved materials during his testimony. His testimony was primarily foundational and reconfirmed what the agents had already explained: the controlled buy of methamphetamine from Tate followed the standard procedure.⁴

The State's last witness was the confidential informant, who testified in person. He was the only eyewitness who could confirm the actual physical sale of methamphetamine by Tate, and he corroborated the conversation transmitted and recorded by the audio device. Tate did not testify, but her counsel extensively cross-examined the confidential informant, suggesting that the informant brought the methamphetamine to the controlled buy to frame Tate and to save himself from a prison sentence.

During final jury instructions, the district court gave a cautionary instruction regarding COVID-19:

Throughout the trial, you have seen a number of safety precautions implemented in an effort to minimize the potential spread of COVID-19. Many of these steps may have made this process less comfortable or less convenient. However, you should not draw any inference from these procedures against the state or the defendant. The judicial branch enacted

⁴ During cross-examination, defense counsel asked follow-up questions about the search protocol because the lead investigator was the one who actually searched the confidential informant before and after the controlled buy. Defense counsel also asked the lead investigator some questions about the analyst's report. Specifically, defense counsel asked the lead investigator if he had requested a fingerprint analysis of the plastic bag containing the methamphetamine. The lead investigator had difficulty seeing the analyst's report over Zoom and could not definitively answer this question. On redirect examination, however, he confirmed that he does not normally request fingerprint analysis for controlled-buy investigations.

these precautions, and it is my responsibility to implement them in this courtroom for everyone's safety.

The jury found Tate guilty. The district court imposed a stayed sentence of 21 months in prison and placed Tate on probation.

On appeal, Tate challenged the district court's decision to allow the lead investigator to testify via Zoom. In a precedential opinion, the court of appeals affirmed. *State v. Tate*, 969 N.W.2d 378, 381 (Minn. App. 2022). Applying the analysis set forth in *Maryland v. Craig*, 497 U.S. 836 (1990), the court concluded that Tate's right to confrontation was not violated when the district court allowed the lead investigator to testify via Zoom. *Tate*, 969 N.W.2d at 386–91. We granted Tate's petition for review and now affirm the well-reasoned decision of the court of appeals.

ANALYSIS

The Confrontation Clause of the Sixth Amendment provides: “In all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him.” U.S. Const. amend. VI. Similarly, Article I, Section 6, of the Minnesota Constitution provides in pertinent part that “[t]he accused shall enjoy the right . . . to be confronted with the witnesses against him.”⁵ Minn. Const. art. I, § 6. Accordingly, the Confrontation Clause generally “guarantees the defendant a face-to-face meeting with

⁵ The relevant language of the federal and state Confrontation Clauses is identical. Because Tate does not argue for a more expansive reading of the Minnesota Constitution than its federal counterpart, we apply the precedent of the United States Supreme Court to determine whether Tate's right to confrontation was upheld here.

witnesses appearing before the trier of fact.” *Coy v. Iowa*, 487 U.S. 1012, 1016 (1988). But the right to personally confront a witness is not absolute. *Id.* at 1020.

We have never addressed a Confrontation Clause challenge under these unique circumstances—when one of the State’s five witnesses, in quarantine during a global pandemic, testified in a jury trial by live, two-way, remote video technology. To evaluate this challenge, we must first identify the appropriate Confrontation Clause analysis, and then apply that analysis to the circumstances presented here. We review Confrontation Clause challenges de novo. *State v. Caulfield*, 722 N.W.2d 304, 308 (Minn. 2006).

I.

The United States Supreme Court has not yet addressed how witness testimony via live, two-way, remote video technology affects a defendant’s constitutional right to confrontation under the Sixth Amendment. In *Maryland v. Craig*, 497 U.S. 836 (1990), however, the Supreme Court adopted a two-part test to evaluate a Confrontation Clause challenge to a Maryland statute allowing a child abuse victim to testify outside the presence of the criminal defendant using one-way, closed-circuit television. The Supreme Court held that “a defendant’s right to confront accusatory witnesses may be satisfied absent a physical, face-to-face confrontation only where denial of such confrontation is necessary to further an important public policy and only where the reliability of the testimony is otherwise assured.” *Id.* at 850.

Tate and the State generally agree that we should formally adopt and apply at least the first part (the necessity prong) of the two-part analysis set forth in *Craig*, although they disagree about the relevance of the second part of the test concerning reliability. We first

summarize the two-part analysis in *Craig* and then evaluate whether that test is appropriate to apply to a Confrontation Clause challenge concerning live, two-way, remote video conferencing.

The first part of the test in *Craig* is that the lack of face-to-face confrontation must be “necessary to further an important public policy.” *Id.* To satisfy this part of the test, the necessity prong, the State must advance a valid and important public policy, and the district court must make a “case-specific” finding of necessity to excuse a witness from in-person testimony. *Id.* at 855. In *Craig*, the “state interest in protecting child witnesses from the trauma of testifying in a child abuse case” was deemed “sufficiently important to justify the use of a special procedure that permits a child witness . . . to testify at trial against a defendant in the absence of face-to-face confrontation” *Id.* Accordingly, the Court held that a child witness may testify via one-way, remote technology in a child abuse case without violating the Confrontation Clause as long as a trial court makes a case-specific finding of necessity.⁶ *Id.* at 860.

When evaluating the reliability of the testimony under the second part of the *Craig* test, the Supreme Court found it “significant” that, apart from a face-to-face confrontation, “Maryland’s procedure preserves all of the other elements of the confrontation right: The child witness must . . . testify under oath; the defendant retains full opportunity for

⁶ The Court ultimately remanded the case to the Maryland Court of Appeals to determine, under the new legal standard that the Court established in the case, whether the district court made the necessary case-specific finding regarding the child witness—that testimony by the child witness in *Craig*’s physical presence would result in the child suffering “serious emotional distress such that the child cannot reasonably communicate.” *Craig*, 497 U.S. at 860.

contemporaneous cross-examination; and the judge, jury, and defendant are able to view (albeit by video monitor) the demeanor (and body) of the witness as he or she testifies.” *Craig*, 497 U.S. at 851. The Court noted that the presence of these key elements of confrontation “ensures that the testimony is both reliable and subject to rigorous adversarial testing in a manner functionally equivalent to that accorded live, in-person testimony.” *Id.* Given the presence of these safeguards, the Court ultimately concluded that “to the extent that a proper finding of necessity has been made, the admission of such testimony would be consonant with the Confrontation Clause.” *Id.* at 857.

The rationale set forth in *Craig* applies to witness testimony, whether by a child or an adult, taken by use of live, *two-way*, remote video technology like the type used here. Notably, nearly every jurisdiction that has addressed a defendant’s Confrontation Clause challenge to the use of *two-way* testimony using video conferencing—both before and during the COVID-19 pandemic—has applied the *Craig* test. *See, e.g., In re Interest of C.A.R.A. v. Jackson Cnty. Juv. Off.*, 637 S.W.3d 50, 58–60 (Mo. 2022) (applying *Craig* to live, two-way, remote video testimony during the COVID-19 pandemic); *State v. Comacho*, 960 N.W.2d 739, 754–56 (Neb. 2021) (applying *Craig* to live, two-way, remote video testimony of a law enforcement officer during the COVID-19 pandemic); *United States v. Carter*, 907 F.3d 1199, 1206–08 (9th Cir. 2018) (applying *Craig* pre-pandemic to testimony of an adult witness by live, two-way, remote video); *United States v. Yates*, 438 F.3d 1307, 1313 (11th Cir. 2006) (en banc) (applying *Craig* pre-pandemic to testimony of adult witnesses by live, two-way, remote video); *United States v. Bordeaux*, 400 F.3d 548, 554 (8th Cir. 2005) (applying *Craig* pre-pandemic to testimony of a child

witness by live, two-way, remote video). We agree that *Craig* is the appropriate test to assess a Confrontation Clause challenge to remote testimony, and we formally adopt it here.

Tate argues that we should rely *only* on the *Craig* necessity prong, and not consider the *Craig* reliability prong, because a later-decided Supreme Court case, *Crawford v. Washington*, 541 U.S. 36 (2004), has limited *Craig*'s viability.⁷ In *Crawford*, the Supreme Court overruled its decision in *Ohio v. Roberts*, 448 U.S. 56 (1980). In *Roberts*, the Court decided that admission of a hearsay statement did not violate the Confrontation Clause when a declarant was unavailable to testify if the statement contained "adequate indicia of reliability." 448 U.S. at 66 (internal quotation marks omitted). Tate asserts that because much of the Supreme Court's reasoning and support for the reliability prong in *Craig* came from *Roberts*, the Supreme Court's decision to overturn *Roberts* in *Crawford* has completely undermined the reliability prong. According to Tate, other courts have recognized this impact on the reliability prong and now exclusively rely on the necessity prong when applying *Craig* post-*Crawford*. See, e.g., *In re Interest of C.A.R.A.*, 637 S.W.3d at 62–63. Tate contends that we must do the same.

⁷ At the court of appeals, Tate argued that Minnesota courts should not adopt *Craig*, but instead should adopt the Michigan standard applying *Crawford v. Washington*, 541 U.S. 36 (2004) to nearly all remote testimony. See *Tate*, 969 N.W.2d at 385 n.8 (citing *People v. Jemison*, 952 N.W.2d 394 (Mich. 2020)). Tate still suggests a strict application of *Crawford* would be proper, but primarily advocates for a more robust application of *Craig*'s necessity prong here. Because we conclude, as discussed below, that *Crawford* does not overrule or undermine *Craig*, the court of appeals was correct to reject adopting *Jemison*. *Craig* is the appropriate constitutional standard.

The State argues that *Craig* remains good law and urges us to apply each factor of the test—necessity and reliability—under a proper *Craig* analysis. It notes that *Crawford* did not overrule or undermine *Craig* because the cases addressed distinctly different confrontation issues.

We agree with the State for several reasons. First, “only the Supreme Court may overrule one of its own decisions.” *State v. Brist*, 812 N.W.2d 51, 56 (Minn. 2012) (holding that a Supreme Court decision casting doubt on a previous opinion’s *reasoning* is different from overruling the prior opinion’s *holding*). Even acknowledging that *Crawford* casts some doubt on the reasoning underlying the reliability prong of the *Craig* test, we note that *Crawford* did not overrule *Craig*. In fact, the majority in *Crawford* does not mention *Craig* in its analysis. Because the Supreme Court has not exercised its exclusive prerogative of overruling its own decision, it follows that *Craig*, in its entirety, remains good law. *See Brist*, 812 N.W.2d at 57 (holding, under the same reasoning, that a different Supreme Court Confrontation Clause case, *Bourjaily v. United States*, 483 U.S. 171 (1987), remained good law post-*Crawford*).

Moreover, *Crawford* does not undermine the holding of *Craig* because the cases address different Confrontation Clause issues. *Crawford* discussed whether the Confrontation Clause is violated by the admission at trial of a testimonial out-of-court statement. *Crawford*, 541 U.S. at 68. Before such a hearsay statement is admissible, *Crawford* held that the witness must be unavailable and the defendant must have had a prior opportunity for cross-examination. *Id.* at 68–69. *Crawford* simply did not address the face-to-face aspect of confrontation and whether other key elements of confrontation,

including a full, virtual cross-examination, can satisfy a defendant's right to confrontation under certain narrow circumstances.

In addition, Tate's argument that we should examine only the necessity prong of the *Craig* test is unpersuasive. She relies on several cases to assert that post-*Crawford*, courts only consider *Craig*'s necessity prong. *See, e.g., Carter*, 907 F.3d at 1202 (concluding that a witness's travel limitations because of a problematic pregnancy in the seventh month was a temporary disability and insufficient to meet the necessity prong); *Yates*, 438 F.3d at 1316 (concluding that the government did not establish necessity when it could depose overseas witnesses who refused to travel to the United States). But in those cases, the district courts failed adequately to consider the necessity prong, making a determination of the reliability of the testimony unnecessary.

In re Interest of C.A.R.A. provides a good example of when reliability was not examined. In that case, the Missouri Supreme Court applied *Craig* during the COVID-19 pandemic to assess a defendant's challenge to remote testimony in a child sexual abuse case. *In re Interest of C.A.R.A.*, 637 S.W.3d at 64–66. There, the testimony of every state witness—the child victim, her mother, and her babysitter—was presented using remote video conferencing. *Id.* at 54. The Missouri Supreme Court found a violation of the Confrontation Clause because the district court failed to determine whether it was necessary to have *every witness* testify remotely. *Id.* at 66. The supreme court did not even discuss whether the testimony was reliable because the case hinged on the necessity for the remote testimony. *Id.* Accordingly, Tate's reliance on *In re Interest of C.A.R.A.* is misplaced.

Finally, the State correctly emphasizes the need to apply each prong of the *Craig* test robustly. To ignore the reliability prong would unnecessarily diminish the importance of various elements of the right to confrontation, including a defendant’s confrontation tool of cross-examination—“the greatest legal engine ever invented for the discovery of truth.” *California v. Green*, 399 U.S. 149, 158 (1970) (citation omitted) (internal quotation marks omitted). *See also Crawford*, 541 U.S. at 61 (holding that the Confrontation Clause requires “not that evidence be reliable, but that reliability be assessed in a particular manner: by testing in the crucible of cross-examination”).

Accordingly, we hold that the *Craig* two-part test is the proper constitutional test to determine whether a witness can testify outside of a defendant’s physical presence by live, two-way, remote video conferencing without violating the defendant’s right to confrontation.

II.

Applying the *Craig* two-part test here, we conclude that the State has shown that, under the specific circumstances of this trial, the lead investigator’s remote testimony was necessary to advance an important public policy interest, and that his testimony was reliable. *See Craig*, 497 U.S. at 850.

A.

Turning to the first prong of necessity, *Craig* instructs us that a valid public policy interest must be narrowly defined, and that necessity requires specificity. *Id.* at 848–50, 857–58. General public policy concerns by themselves are insufficient. *Coy*, 487 U.S. at 1021. The district court must find that the specific circumstances surrounding a specific

witness warrant denying the right to face-to-face confrontation. *Craig*, 497 U.S. at 850, 855. The State bears the burden to make an adequate showing of necessity. *Id.* at 855.

Here, when evaluating the need for the district court to allow the remote testimony of one witness, we must consider that this jury trial occurred in November 2020, during the second deadly wave of a “global health emergency.” *State v. Paige*, 977 N.W.2d 829, 840 (Minn. 2022). The judicial branch was then operating under uncertain and ever-changing circumstances relating to the global COVID-19 pandemic. Minnesota’s Governor had first declared the pandemic to be a peacetime emergency in March 2020. Emerg. Exec. Order No. 20-01, *Declaring a Peacetime Emergency & Coordinating Minnesota’s Strategy to Protect Minnesotans from COVID-19* (Mar. 13, 2020) (ordering non-essential workers to stay home and temporarily closing bars, restaurants, and other public accommodations). The Governor continuously extended the emergency order,⁸ including on November 12, 2020, only days before Tate’s trial was to begin. Emerg. Exec. Order No. 20-97, *Extending the COVID-19 Peacetime Emergency Declared in Executive Order 20-01* (Nov. 12, 2020) (extending order).

The November 12, 2020, Emergency Order explained in stark detail the harms that Minnesotans were then experiencing because of the COVID-19 pandemic:

From November 3 to November 6, Minnesota reported four straight days of record daily COVID-19 cases. Two days later, Minnesota set another state

⁸ See also Emerg. Exec. Order No. 20-33, *Extending Stay at Home Order & Temporary Closure of Bars, Restaurants, and Other Places of Public Accommodation* (Apr. 8, 2020) (extending order); Emerg. Exec. Order No. 20-35, *Extending the COVID-19 Peacetime Emergency Declared in Executive Order 20-01* (Apr. 13, 2020) (extending order and recognizing that pandemic was an “unprecedented and rapidly evolving challenge”).

record of 5,908 new cases. Yesterday, we lost 56 Minnesotans to COVID-19, setting a grim new record for deaths reported in a single day. This surge has placed our hospitals under immense strain. Intensive Care Units are on the verge of dangerous capacity shortages in many areas of the state. Minnesota has had over 194,000 confirmed COVID-19 cases, with over 12,000 hospitalizations and over 2,700 fatalities. We have continued to learn more about COVID-19's propensity to spread rapidly throughout our communities—both rural and urban—and continued action is necessary to mitigate its impacts.

Id. at 1–2.

The Minnesota court system was also in flux when Tate's trial was held. Shortly after the Governor's first emergency order, the Chief Justice suspended in-person hearings and all jury trials, directing cases to be managed via remote technology. Continuing Operations of the Courts of the State of Minnesota Under a Statewide Peacetime Declaration of Emergency, No. ADM20-8001, Order at 3–6 (Minn. filed Mar. 20, 2020). In a May order, the Chief Justice approved a pilot program to begin in June 2020, to determine whether jury trials could be safely held. Continuing Operations of the Minnesota Judicial Branch Under Emergency Executive Order 20-48, No. ADM20-8001, Order at 2 (Minn. filed May 1, 2020). The pilot program, later expanded to the entire state, required courts to conform with the Minnesota Judicial Branch's COVID-19 Preparedness Plan to ensure the safety of all participating in court proceedings. Operations of the Minnesota Judicial Branch Under Emergency Executive Order Nos. 20-53, 20-56, No. ADM20-.8001, Order at 2 (Minn. filed May 15, 2020) (requiring, among other safety precautions, mask-wearing and physical distance). Only 4 days after Tate's trial concluded, the Chief Justice ordered that no new jury trials would begin before February 1, 2021, citing, among other reasons, an alarming increase in COVID-19 cases across the state. *Continuing*

Operations of the Minnesota Judicial Branch, No. ADM20-8001, Order at 2 (Minn. filed Nov. 20, 2020).⁹

Given this extraordinary context of courts trying to administer justice safely during a virulent and deadly outbreak of disease, the district court correctly found that a valid public policy interest was furthered by the use of remote testimony for this one witness. The transcripts make it clear that the district court understood that jury trials in the state “are to continue” and acted accordingly to protect “the safety of anyone who will be in the courtroom” by reducing the “unnecessary risk of the disease spread.” Here, the lead investigator had been exposed to a person who had tested positive for COVID-19 and was advised by public health officials to quarantine. With this exposure, the witness was particularly susceptible to becoming ill, and his physical presence in the courtroom would have risked the health and safety of everyone participating in a confined courtroom setting.

At this stage of the pandemic, vaccines were not yet available to protect those in the courtroom,¹⁰ including a number of jurors whom the record showed to be at high risk if they caught the disease. One certain way to proceed with trial and to prevent the virus’s spread was for the lead investigator to quarantine. The district court had to make a judgment call for this specific case and the testimony of one specific witness under uncertain and rapidly changing pandemic conditions. We agree with the court’s

⁹ Tate herself recognized the severity of the situation in her motions in limine to the district court asking for a continuance. She noted that she had “concerns regarding having a jury trial right now where the number of COVID 19 cases in our area is very high.”

¹⁰ Sencer, *CDC Museum Covid-19 Timeline*, CDC.gov, <https://www.cdc.gov/museum/timeline/covid19.html> [opinion attachment].

determination that the lead investigator's absence from the courtroom and remote testimony was necessary to further the important public policy of preventing the spread of COVID-19 while safely conducting a criminal trial.

In sum, we hold that the necessity prong was met under *these specific circumstances*. We emphasize that Tate's trial was held during an uncertain, critical time of the pandemic when knowledge regarding COVID-19's spread and treatment was much more limited than today, and when emergency orders were still in effect to limit public interaction and exposure to the virus. The district court in November 2020 was operating under vastly different circumstances than those facing courts today. The decision to allow one of the State's five witnesses—and one of the three task-force agents who were present for the controlled buy—to testify remotely to protect the health and safety of others during Tate's trial was therefore proper.

Tate contends that the State cannot show that remote testimony was necessary when the district court could simply have granted a short continuance until the lead investigator became available. In *Craig*, the Supreme Court addressed the use of less restrictive alternatives than the one-way closed-circuit television procedure at issue there. 497 U.S. at 859–60. The Court noted that the decision of the court of appeals—which concluded that the finding of necessity to justify remote testimony was not met—appeared to rest in part upon the district court's failure to consider such alternatives. *Id.* Although the Supreme Court recognized that “such evidentiary requirements could strengthen the grounds for use of protective measures,” the Court “decline[d] to establish, as a matter of

federal constitutional law, any such categorical evidentiary prerequisites for the use of the one-way television procedure.” *Id.* at 860.

Accordingly, we decline to hold that the granting of a continuance—a matter typically entrusted to the discretion of the district court¹¹—is required before a district court may order the use of live, two-way, remote video testimony in a criminal trial. Decisions to allow remote testimony must be evaluated on a case-by-case basis, *see Craig*, 497 U.S. at 855, and the possibility of a continuance does not necessarily undercut a showing of necessity.

We do not think the possibility of a continuance undercut the State’s showing of necessity here. The district court did consider Tate’s motion for a fifth trial continuance but did so in the context of the global pandemic in November 2020. Although a two-week continuance might sound reasonable in present circumstances, when the district court decided the issue, it knew from the Governor’s extension of the emergency order—issued only 4 days before trial started—that COVID-19 cases were surging in Minnesota, hospitals were under great strain with capacity shortages in their intensive care units, and a new record for daily deaths had been set in Minnesota. The district court also knew that, given these developments, new judicial branch orders may soon be issued regarding the

¹¹ If we were evaluating the district court’s denial of a continuance here under the typical discretionary standard, we would only reverse upon “a showing of clear abuse of discretion.” *State v. Smith*, 932 N.W.2d 257, 268 (Minn. 2019) (citation omitted). A denial of a continuance is an abuse of discretion when the defendant’s strategy is so prejudiced that the denial materially affects the outcome of the trial. *Id.* The burden would be on the defendant to show that she was sufficiently prejudiced to justify reversal. *State v. Courtney*, 696 N.W.2d 73, 81 (Minn. 2005).

continuation of jury trials. To add to the uncertainty, the district court did not know whether the lead investigator exposed to the virus would get sick, how sick he would become if infected or how long it would be until he could appear in person, and whether, in the meantime, anyone else involved in the trial would get sick, leading to additional continuances. In short, unlike other cases when a district court could predict an end date, *see, e.g., Carter*, 907 F.3d at 1208 (concluding that the temporary disability of a problematic pregnancy in the seventh month did not meet *Craig*'s necessity test), the court here did not know when the unpredictable COVID-19 crisis would ameliorate or end.

Consequently, we conclude that the first *Craig* prong is satisfied. The State has met its burden to show that the use of live, two-way, remote video technology by one of its witnesses was necessary to advance an important public policy.

B.

Turning next to *Craig*'s reliability prong, we conclude that this second factor is satisfied here as well. Testimony is generally reliable under the Confrontation Clause if a witness testifies in the physical presence of the defendant, is sworn under oath, is subject to cross-examination, and can be properly observed by the trier of fact. *Craig*, 497 U.S. at 845–46. Physical presence may be excused, however, if the court preserves “all of the other elements of the confrontation right: oath, cross-examination, and observation of the witness’ demeanor.” *Id.* at 851.

The district court’s order met every reliability element identified in *Craig* other than physical presence in the courtroom. The lead investigator was sworn in under oath. After he was sworn in, the district court confirmed that the lead investigator was alone during his

testimony and was not relying on anything besides court-approved materials. The judge, jury, and counsel were able to see, hear, and observe the lead investigator's demeanor during his testimony. The district court required "the largest screen available" (a 65-inch screen) for the remote testimony and confirmed that the technology worked beforehand. Defense counsel also confirmed that the lead investigator could see and hear him before counsel began cross-examination. Although some subtle intricacies of the witness's demeanor may have been lost because the lead investigator was not physically in court, the jury, counsel, the court, and the defendant could see his face with reasonable clarity and had the opportunity to assess his manner when testifying. *See, e.g., Comacho*, 960 N.W.2d at 756 (stating that Comacho, his counsel, and the jury could observe the witness's demeanor "as he testified in real time").

More importantly, defense counsel had ample opportunity to cross-examine the lead investigator, and the transcript shows that he conducted an effective cross-examination. Even though the lead investigator had some trouble seeing a portion of a lab report, his testimony reflected the point that defense counsel intended to make—that he had not submitted the evidence for fingerprinting or DNA analysis. Accordingly, the reliability of his testimony was assessed "by testing in the crucible of cross-examination." *Crawford*, 541 U.S. at 61. Overall, the district court took sufficient steps to ensure the reliability of the lead investigator's testimony via Zoom. The court of appeals properly concluded that procedures used by the district court satisfied the reliability prong of *Craig*.¹²

¹² Tate also claims that the district court violated Minnesota Rule of Criminal Procedure 1.05, subdivisions 4 and 9, because those rules require that the parties must each

In sum, applying *Craig*'s two-part test here, we conclude that Tate's right to confrontation under the federal and state constitutions was not violated when the district court permitted one witness to testify using live, two-way, remote video technology during a jury trial because the remote testimony was necessary under the circumstances then presented by the COVID-19 pandemic, and the testimony was sufficiently reliable.¹³

CONCLUSION

For the foregoing reasons, we affirm the decision of the court of appeals and uphold Tate's conviction.

Affirmed.

stipulate and agree on any witness who testifies remotely. Tate did not raise this issue at the court of appeals or in her petition for review, so the argument has been forfeited. *See State v. Myhre*, 875 N.W.2d 799, 806 (Minn. 2016). Moreover, even if we considered the argument, it lacks merit because the rule was suspended by a judicial branch order dated May 15, 2020. Operations of the Minnesota Judicial Branch Under Emergency Executive Order Nos. 20-53, 20-56, No. ADM20-8001, Order at 3 (Minn. filed May 15, 2020).

¹³ Because we conclude that no Confrontation Clause violation occurred here, we need not reach the issue of harmless error. Even if we were to address that issue, however, we would conclude that any error here was harmless. *See Caulfield*, 722 N.W.2d at 314 (holding that an error violating a constitutional right is harmless beyond a reasonable doubt if it could not have reasonably impacted the jury's decision).

DISSENT

THISSEN, Justice (dissenting).

COVID-19 is not a universal justification for ignoring a criminal defendant's constitutional rights. I dissent from the court's decision because the use of remote testimony was not necessary to avoid the risks presented by the COVID-19 pandemic. The district court could have granted a continuance and avoided those risks. Accordingly, I would reverse.

A.

As the court observes, the Confrontation Clause generally “guarantees the defendant a face-to-face meeting with witnesses appearing before the trier of fact.” *Coy v. Iowa*, 487 U.S. 1012, 1016–17 (1988). The United States Supreme Court has described several reasons physical face-to-face confrontation is so important. It gives the accused:

[A]n opportunity, not only of testing the recollection and sifting the conscience of the witness, but of compelling him to stand face to face with the jury in order that they may look at him, and judge by his demeanor upon the stand and the manner in which he gives his testimony whether he is worthy of belief.

Maryland v. Craig, 497 U.S. 836, 845 (1990) (quoting *Mattox v. United States*, 156 U.S. 237, 242–43 (1895)). In addition, the Supreme Court has noted the importance of a witness looking a defendant in the eye when he testifies because “[i]t is always more difficult to tell a lie about a person ‘to his face’ than ‘behind his back.’ ” *Coy*, 487 U.S. at 1019. And “there is something deep in human nature that regards face-to-face confrontation between accused and accuser as ‘essential to a fair trial in a criminal prosecution.’ ” *Id.* at 1018 (quoting *Pointer v. Texas*, 380 U.S. 400, 404 (1965)). None of the interests are as well

served when a witness testifies remotely, and so physical, face-to-face testimony should not “easily be dispensed with.” *Craig*, 497 U.S. at 850.

I agree with the court that the standard stated in *Craig* is the proper standard for assessing whether the district court may constitutionally “dispense with” the Sixth Amendment right to confrontation and allow a “fundamental” State witness (as the State itself described the investigator) to testify remotely rather than in-person. *See id.* Because physical, face-to-face confrontation serves such essential functions in our criminal justice system, *Craig* instructs that the constitutional guarantee of in-person testimony may be denied “*only* where denial of such confrontation is *necessary* to further an important public policy.”¹ *Id.* (emphasis added). That “only” is important and should not be ignored. It is an acknowledgment that we are dealing with a *constitutional right* and not merely with a convenience; this case is not about whether the district court abused its discretion. If there is another way besides remote testimony to serve the identified public policy interest, then a district court cannot constitutionally jettison physical, face-to-face confrontation.

In this case, the important public policy was keeping jurors, court staff, witnesses, and the parties and their attorneys safe from the risk of COVID-19 infection and to interrupt spread of the disease. And I agree that protecting trial participants from the health risks associated with COVID-19 is an important public policy.

¹ Under *Craig*, the State must also demonstrate that the reliability of the testimony of the remote witness is otherwise assured. *Craig*, 497 U.S. at 850. Because I conclude that the State has not proven that the denial of the right to physical face-to-face confrontation was necessary, I do not need to reach the additional “otherwise reliable” requirement of the *Craig* test and express no views on the continued viability of that portion of the *Craig* test in light of the Supreme Court’s decision in *Crawford v. Washington*, 541 U.S. 36 (2004).

I disagree, however, that suspending Tate’s constitutional right to confrontation was necessary to avoid those health risks. A continuance would have readily avoided those same health risks.² Indeed, no one denies that is the case. Moreover, a continuance would not have implicated any of Tate’s other constitutional rights. She was not demanding a speedy trial. Further, she was not in custody while awaiting trial (and was ultimately sentenced to probation). And there is absolutely no evidence in the record that the State was concerned about witnesses disappearing or evidence going stale.

The only reason suggested in the record for the district court’s refusal to grant a continuance instead of suspending Tate’s constitutional confrontation right was the court’s interest in keeping the case moving. Indeed, the district court suggested as much, stating

² In assessing whether denial of physical, face-to-face confrontation is necessary, we cannot ignore reasonable alternatives to the suspension of constitutional rights. *Craig* does not prohibit consideration of other alternatives and certainly does not foreclose consideration of whether denial of an accused’s confrontation right is necessary because a continuance would equally serve the public interest that is being proffered to justify remote testimony. Otherwise, the *Craig* court’s directive that the right to physical face-to-face confrontation may be dispensed with “only where denial of such confrontation is necessary to further an important public policy” is nonsensical. 497 U.S. at 850. The *Craig* court merely held that a trial court need not make specific findings on necessity as long as the record supported the need for remote testimony. *Id.* at 860 (concluding that, despite the lack of a specific finding, the trial court “could well have found, on the basis of the expert testimony before it, that testimony by the child witnesses in the courtroom in the defendant’s presence will result in [each] child suffering serious emotional distress such that the child cannot reasonably communicate”) (citation omitted) (internal quotation marks omitted). Moreover, the reference to “less restrictive alternatives” in *Craig* was directly tied to the question of whether the trial judge had to first observe the child witnesses in the presence of the defendant who was alleged to have abused them. *Id.* at 859–60. As noted in the above parenthetical, such observation was unnecessary in light of the expert testimony in the case. *Id.* at 860. Here, the record does not support the district court’s conclusion that it was necessary to deny Tate her Sixth Amendment right to confrontation because the district court could have continued the case and achieved the same protections against the infection and spread of COVID-19.

in the discussion of the continuance request that “trials are to continue” and “the jury is ready to go.”³ While that is certainly an understandable instinct, it is not a sufficient reason to dispense with the constitutional right to confrontation. Accordingly, the deep concern expressed by the court that Tate’s trial might be postponed indefinitely is beside the point.

Further, the concern about indefinite delay is not sufficient because it is based on conjecture and speculation. All we know from the record is that the investigator had been exposed to COVID-19. He very well may have been ready to testify in person a week or two later—a period of time the majority concludes “sounds reasonable.” There is no evidence he was—or ever became—infected with COVID-19. And even if the investigator had contracted COVID-19, the most likely outcome is that he would have been ready to testify within a few weeks. Of course, during that time, other witnesses, lawyers, or parties may have become sick. But again, that is pure conjecture. More critically, the chance that, if a case is continued, another witness may become unavailable for some reason at the time of the rescheduled trial is something that is true *in every case* and not just in the midst of a COVID-19 pandemic. Moreover, when the decision was made to proceed to trial, the district court did not know whether Minnesota courts would put criminal trials on hold since that decision was not made until *after* the trial ended.

³ The court suggests that the district court may have felt pressure to proceed with the trial based on directives from the Judicial Council that jury trials “are to continue.” I acknowledge that district courts faced institutional pressure to keep jury trials going. But any directive in an order concerning court procedure—even during COVID-19—is certainly subject to constitutional limitations.

It cannot be that an accused's constitutional rights can be ignored on the basis of conjecture and speculation. *See Watson v. Memphis*, 373 U.S. 526, 536 (1963) (stating that constitutional rights cannot be ignored based on “personal speculations or vague disquietudes”); *see also F.C.C. v. League of Women Voters of California*, 468 U.S. 364, 399 (1984) (stating that First Amendment rights cannot be denied “on the basis of merely speculative fears”). But that is precisely what the court's unpredictable-end-date rule, and its application to the facts of this case, allows. Further, we cannot throw out the basic constitutional principles by which our criminal justice system operates simply by invoking the word “COVID.” I am concerned that the court's willingness to rely on speculation and conjecture opens up a substantial hole in the essential protections afforded the accused by the constitutional right to confrontation.

B.

I also conclude that the denial of Tate's Sixth Amendment right to confrontation was not harmless beyond a reasonable doubt. *See State v. Caulfield*, 722 N.W.2d 304, 314 (Minn. 2006) (stating that where a Confrontation Clause violation is shown, reversal is mandatory unless the error is harmless beyond a reasonable doubt). The question we must decide when assessing whether a constitutional violation is harmless is not whether the jury would have convicted without the error, but rather whether the jury's decision was “surely unattributable” to the error. *State v. Juarez*, 572 N.W.2d 286, 292 (Minn. 1997).

We have identified nonexclusive factors that we may consider in assessing whether the jury's decision was surely unattributable to a Confrontation Clause violation:

[I]n applying the harmless-error-beyond-a-reasonable-doubt standard, we have found the error to be harmless only where several factors weigh in that direction: the evidence was presented in a manner that did not give it significant focus; the state did not dwell on it in opening and closing statements or in examining witnesses; the evidence was not highly persuasive but was circumstantial. In those cases, the harmless error conclusion has been reinforced by the strength of the evidence of guilt. But we do not have a single case applying the constitutional harmless error analysis where we have held that the strength of the evidence of guilt controls even though the other factors weigh in favor of prejudicial error.

Caulfield, 722 N.W.2d at 317. The evidence of guilt must be overwhelming before an error will be found harmless beyond a reasonable doubt. *Id.* at 316–17. But even in cases involving overwhelming evidence, an error may *still* be prejudicial beyond a reasonable doubt. *Id.*

In addition, when a Confrontation Clause violation is being reviewed for harmless error, we cannot consider “whether the witness’ testimony would have been unchanged, or the jury’s assessment unaltered” had the witness testified live rather than remotely. *Coy*, 487 U.S. at 1021–22. In other words, questions like whether a witness testifying in high-resolution on a big-screen television allowed the jury to assess the witness in the same way as if the witness were testifying in person—whether technology makes remote “just like live”—is irrelevant to the harmless error analysis. Rather, harmlessness must be assessed without any consideration of the investigator’s testimony. *See id.*

Here, the decision to allow the investigator to testify remotely was not harmless beyond a reasonable doubt. The investigator was a critical witness. Indeed, the State itself told the district court that the investigator’s testimony “is fundamental to the State’s case.”

The testimony of the investigator was presented in a way that was designed to secure the State's verdict. There were only a handful of witnesses; the investigator's testimony was not lost in a plethora of evidence. The investigator's testimony was presented in a way (including, ironically, the fact that the witness was the sole witness to testify remotely), that gave the testimony particular focus. And the investigator was the *final* law enforcement officer witness before closing arguments (the confidential informant and a witness for Tate testified after the investigator).

That is not to say that other evidence and witnesses were not as important to the State's case. In particular, the informant who testified about the controlled drug buy was persuasive, as was the audio recording of the drug buy. But the informant's testimony about what happened inside the house during the controlled buy and who was actually speaking on the unclear audio was directly contradicted by other witnesses present in the house. That is not true of the investigator's testimony, whose testimony was left unrebutted.

Moreover, a key argument of Tate at trial was that the informant never, in fact, purchased drugs from Tate but rather that the informant carried the drugs with him to the buy. Accordingly, the testimony of the investigator, who was an integral part of setting up the controlled buy, was critical and highly persuasive. His was the only direct testimony concerning certain aspects of ensuring the informant was not manipulating the controlled buy set up. As noted, in assessing the harmfulness of the error, we must exclude this testimony. If we do so, the State's rebuttal of Tate's defense is significantly weakened.

The prosecutor must have thought that the investigator's testimony was critical as well. The prosecutor relied heavily in closing, and spent a substantial portion of closing, on the testimony of "law enforcement" about the careful process they undertook to conduct the controlled buy. The jury plainly understood that the investigator was part of "law enforcement" that the prosecutor repeatedly referenced.

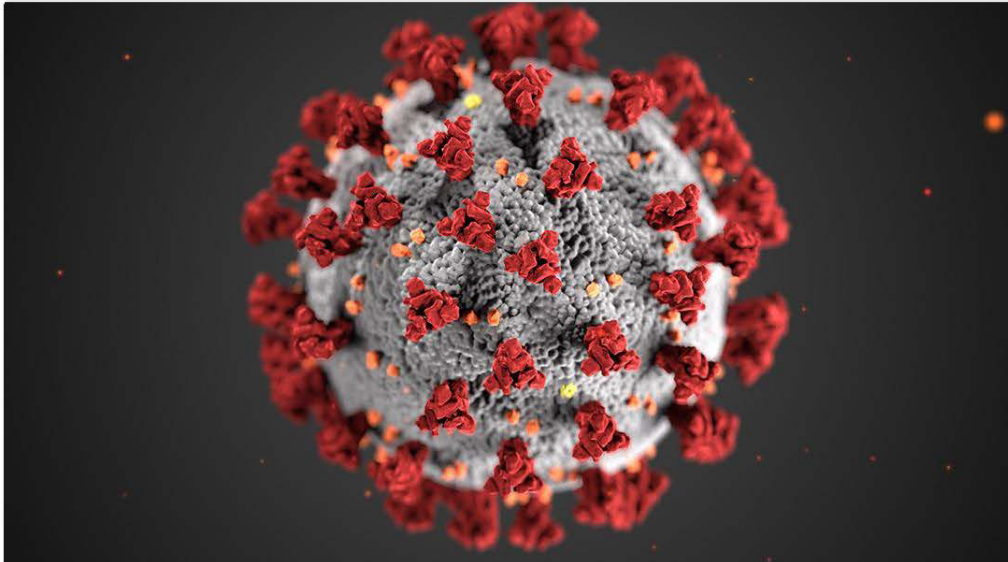
In short, the investigator's testimony was presented in a manner that sharply directed the jury's focus on the testimony; the State dwelled on the investigator's testimony in closing statements and the timing and nature of the investigator's testimony drew more attention to it; the State itself characterized the witness as "fundamental"; and the evidence was the only direct testimony—and highly persuasive testimony—on a critical disputed fact. And, especially in the absence of the investigator's testimony, the evidence against Tate was not overwhelming. *See generally Caulfield*, 722 N.W.2d at 317–18.

On these facts, I cannot conclude that the jury's verdict was "surely unattributable" to the district court's denial of Tate's Sixth Amendment right to confront her accusers. I would reverse.



David J. Sencer CDC Museum: In Association with the Smithsonian Institution Home

CDC Museum COVID-19 Timeline



This timeline provides information about select moments in the COVID-19 pandemic in the United States and around the world beginning from its known origins to today.

[Late 2019](#) | [Early 2020](#) | [Mid 2020](#) | [Late 2020](#) | [Early 2021](#) | [Mid-2021](#) | [Late-2021](#) | [Early 2022](#) | [Mid 2022](#)

Late 2019



December 12, 2019

A cluster of patients in China's Hubei Province, in the city of Wuhan, begin to experience the symptoms of an atypical pneumonia-like illness that does not respond well to standard treatments.



December 31, 2019

The World Health Organization (WHO) Country Office in China is informed of several cases of a pneumonia of unknown etiology (cause) with symptoms including shortness of breath and fever occurring in Wuhan, China. All initial cases seem connected to the Huanan Seafood Wholesale Market.

Early 2020



January 1, 2020

The Huanan Seafood Wholesale Market in Wuhan is closed amid worries in China of a reprise of the 2002–2004 SARS (Severe Acute Respiratory Syndrome Coronavirus or SARS-CoV-1) outbreak.



January 2, 2020

WHO activates its Incident Management Support Team (IMST) across all three organizational levels: Country Office, Regional Office, and Headquarters.



January 3, 2020

China informs WHO that they have identified over 40 cases of pneumonia of unknown etiology.



January 5, 2020

As the disease spreads in Wuhan, Chinese public health officials share the genetic sequence of the atypical pneumonia virus, Wuhan-Hu-1, with the rest of the world through an online database.

CDC's National Center for Immunization and Respiratory Diseases (NCIRD) activates a center-level response to investigate this novel pneumonia of unknown etiology.



January 7, 2020

Public health officials in China identify a novel coronavirus as the causative agent of the outbreak.

CDC establishes an incident management structure to guide their response to the novel coronavirus by following the preparedness plan for developing tests and managing cases made for Middle East Respiratory Syndrome Coronavirus (MERS-CoV).



January 10, 2020

WHO announces that the outbreak in Wuhan, China is caused by the 2019 Novel Coronavirus (2019-nCoV).

CDC publishes information about the 2019 Novel Coronavirus (2019-nCoV) on its website.



January 13, 2020

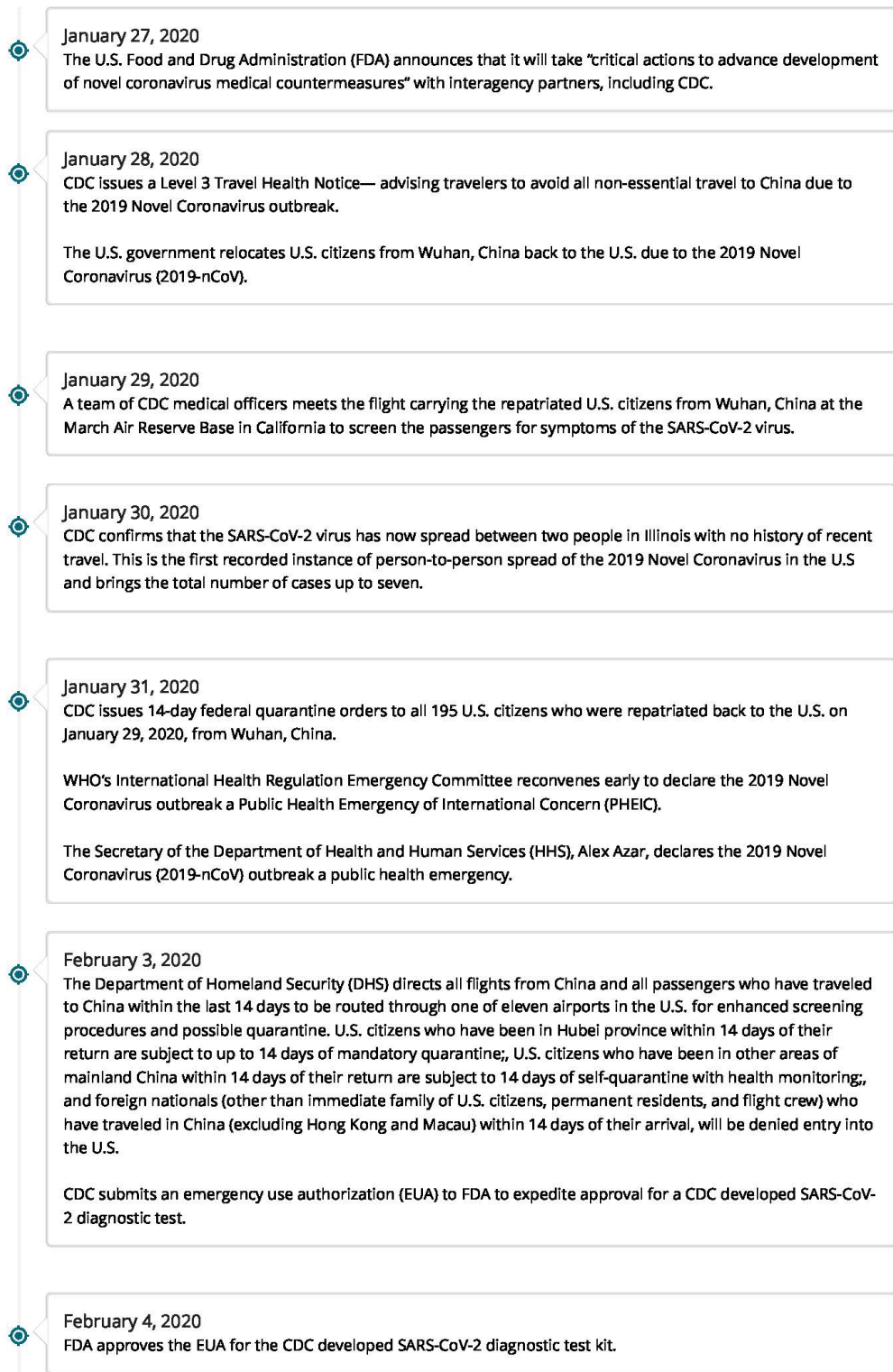
The Thailand Ministry of Public Health confirms the first laboratory-confirmed case of the SARS-CoV-2 virus outside of China.

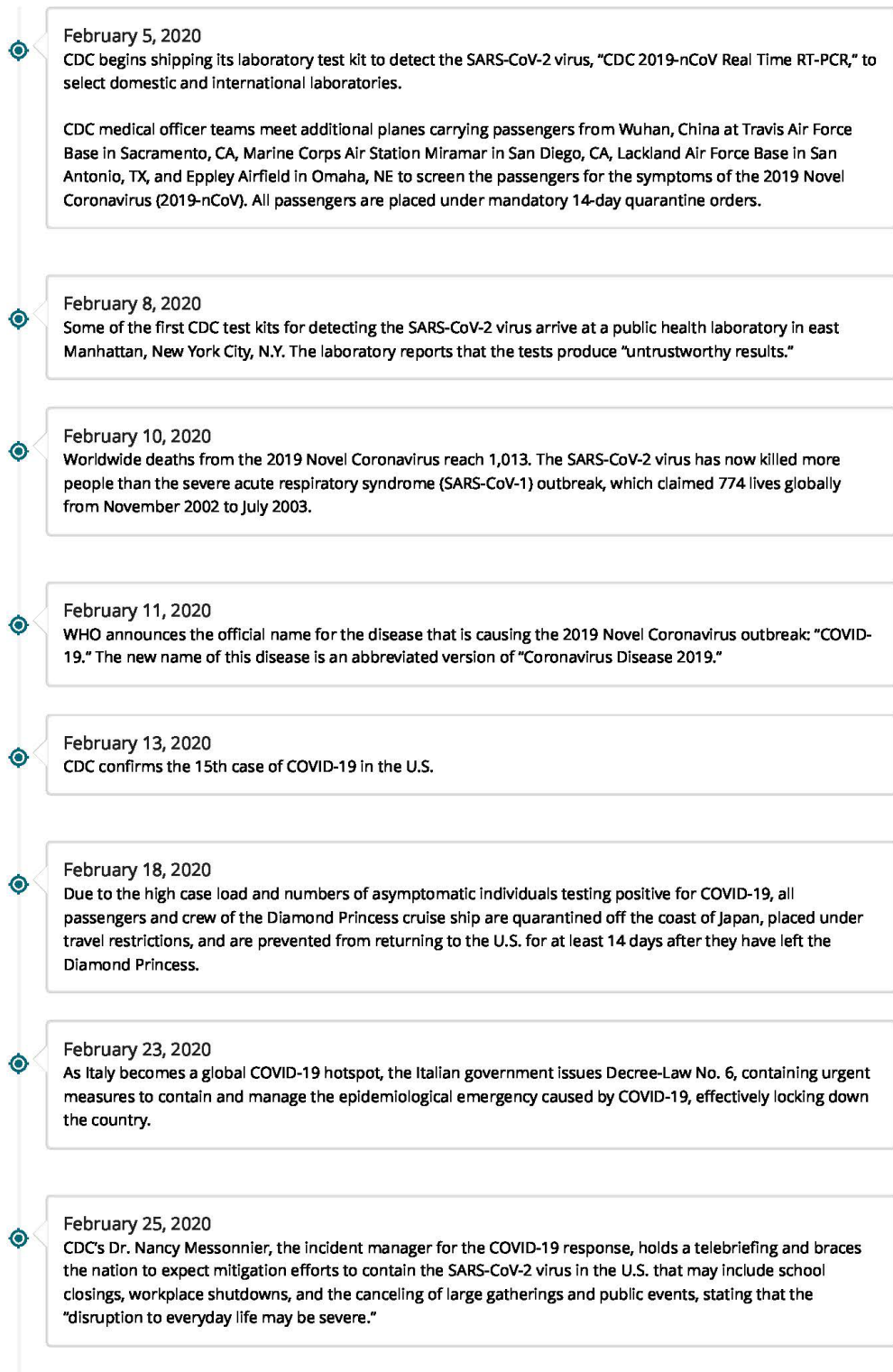


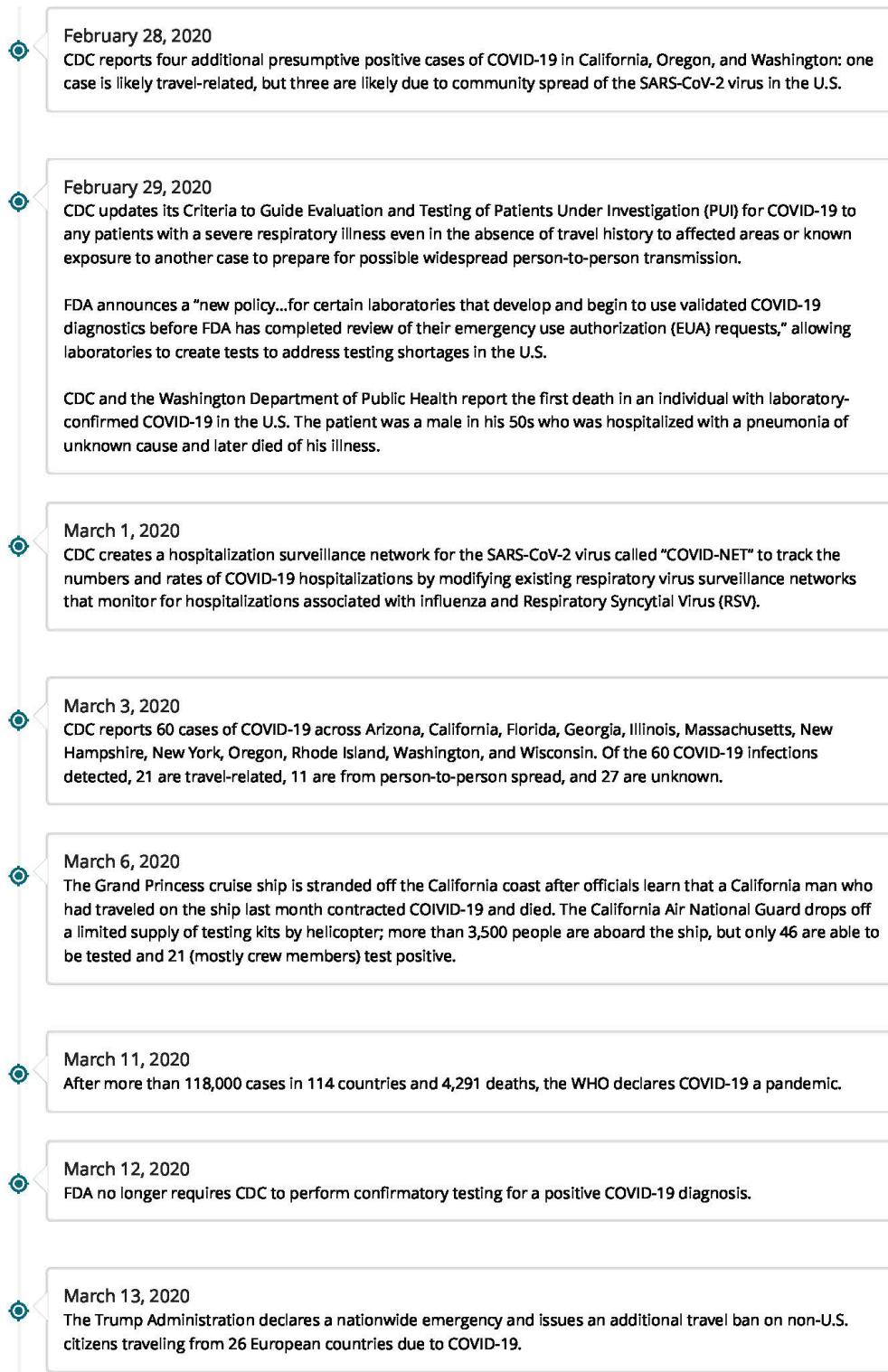
January 14, 2020

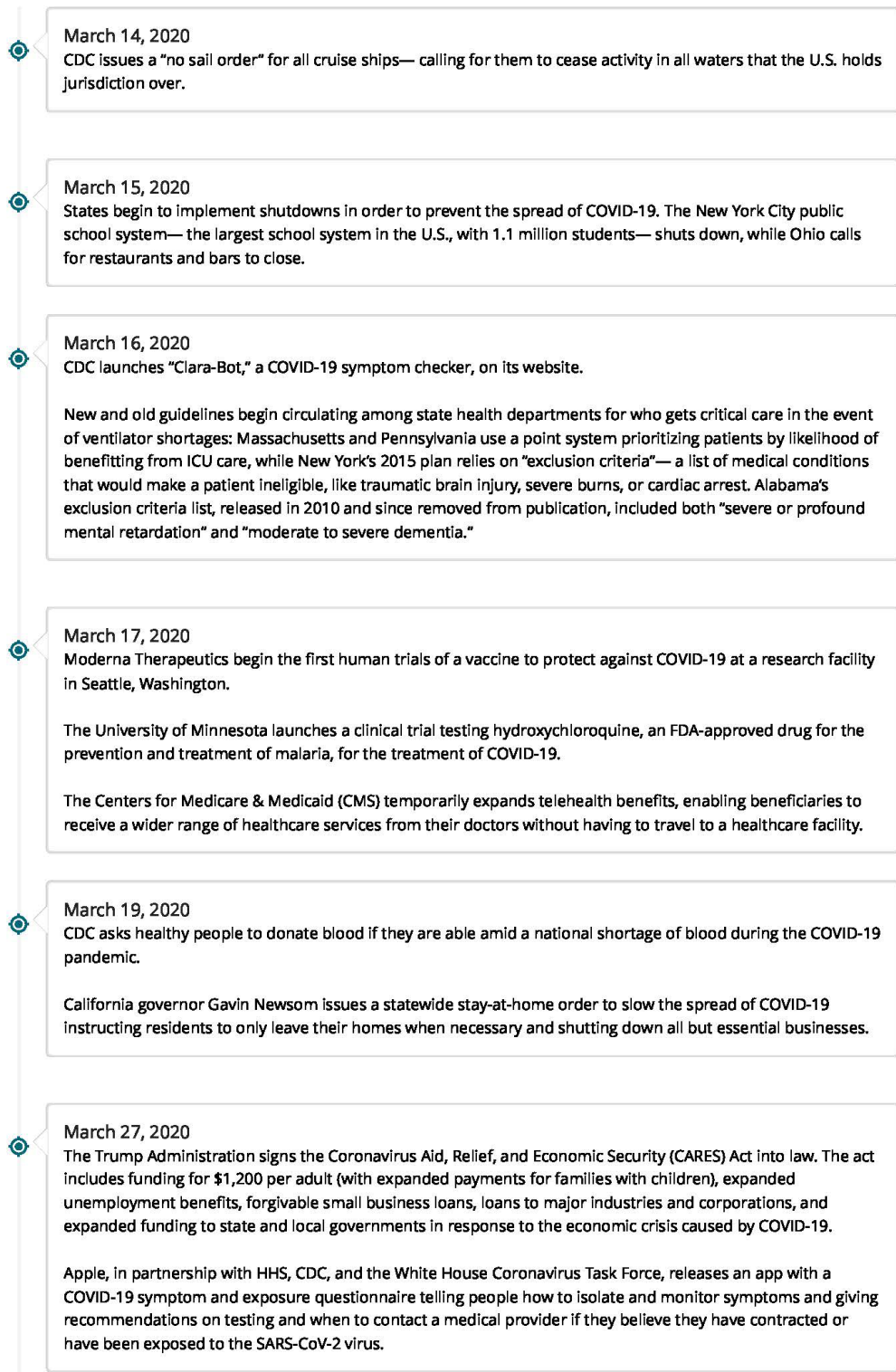
WHO finds evidence of possible human-to-human transmission of the SARS-CoV-2 virus, but WHO scientists say that human-to-human transmission is not surprising given our knowledge of respiratory pathogens.













March 28, 2020

To prevent the spread of COVID-19, the White House extends all social distancing measures until through the end of April 2020.

FDA issues an EUA to allow hydroxychloroquine sulfate and chloroquine phosphate products to be added to the Strategic National Stockpile for the treatment of COVID-19.

CDC distributes a Health Alert Network (HAN) warning against using chloroquine phosphate without the recommendation of a doctor or pharmacy after one person is made seriously ill and a second dies from ingesting non-pharmaceutical chloroquine phosphate (a chemical aquariums use that is commercially available for purchase at stores or online) to prevent or treat COVID-19.

CDC issues a domestic travel advisory for New York, New Jersey, and Connecticut due to high community transmission of COVID-19 in those states, urging residents to refrain from all non-essential domestic travel for at least 14 days, effective immediately.



March 31, 2020

At a White House Press Briefing, Dr. Anthony Fauci and Dr. Deborah Brix announce that between 100,000 and 240,000 deaths in the U.S. are expected— even if social distancing and public health measures are perfectly enacted.

The *Journal of the American Medical Association Ophthalmology* reports that COVID-19 can be transmitted through the eye. One of the first warnings of the emergence of the SARS-CoV-2 virus came late in 2019 from a Chinese ophthalmologist treating patients in Wuhan, Li Wenliang, MD, who died at age 34 from COVID-19.



April 3, 2020

At a White House press briefing, CDC announces new mask wearing guidelines and recommends that all people wear a mask when outside of the home.

CDC warns the public about phone scams and phishing attacks that appear to originate from CDC and ask for donations from individuals. This is government impersonation fraud— federal agencies do not request donations from the public.



April 4, 2020

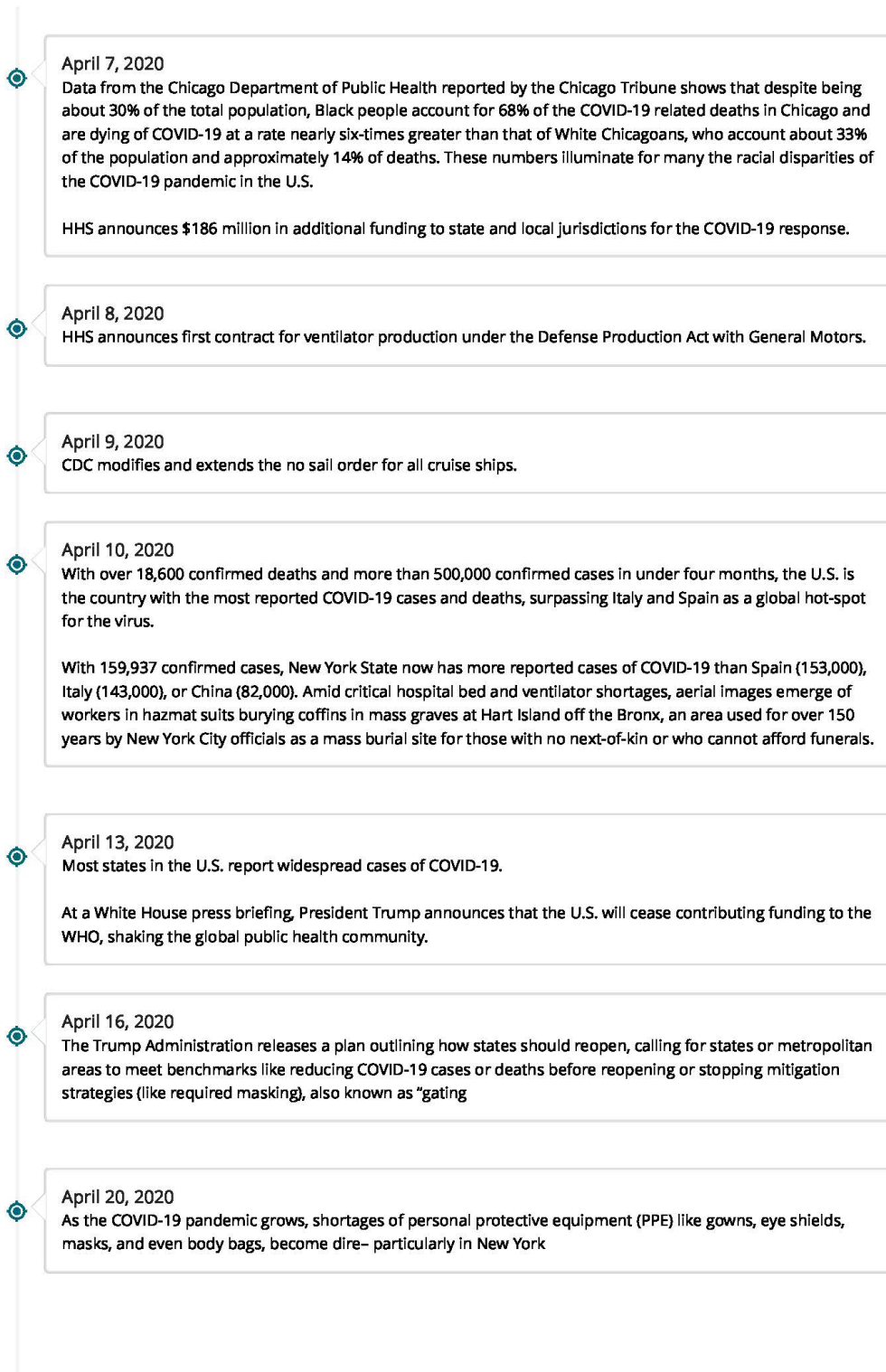
CDC launches a new weekly SARS-CoV-2 virus surveillance report called "COVIDView" summarizing weekly data on COVID-19 hospitalizations, deaths, and testing.

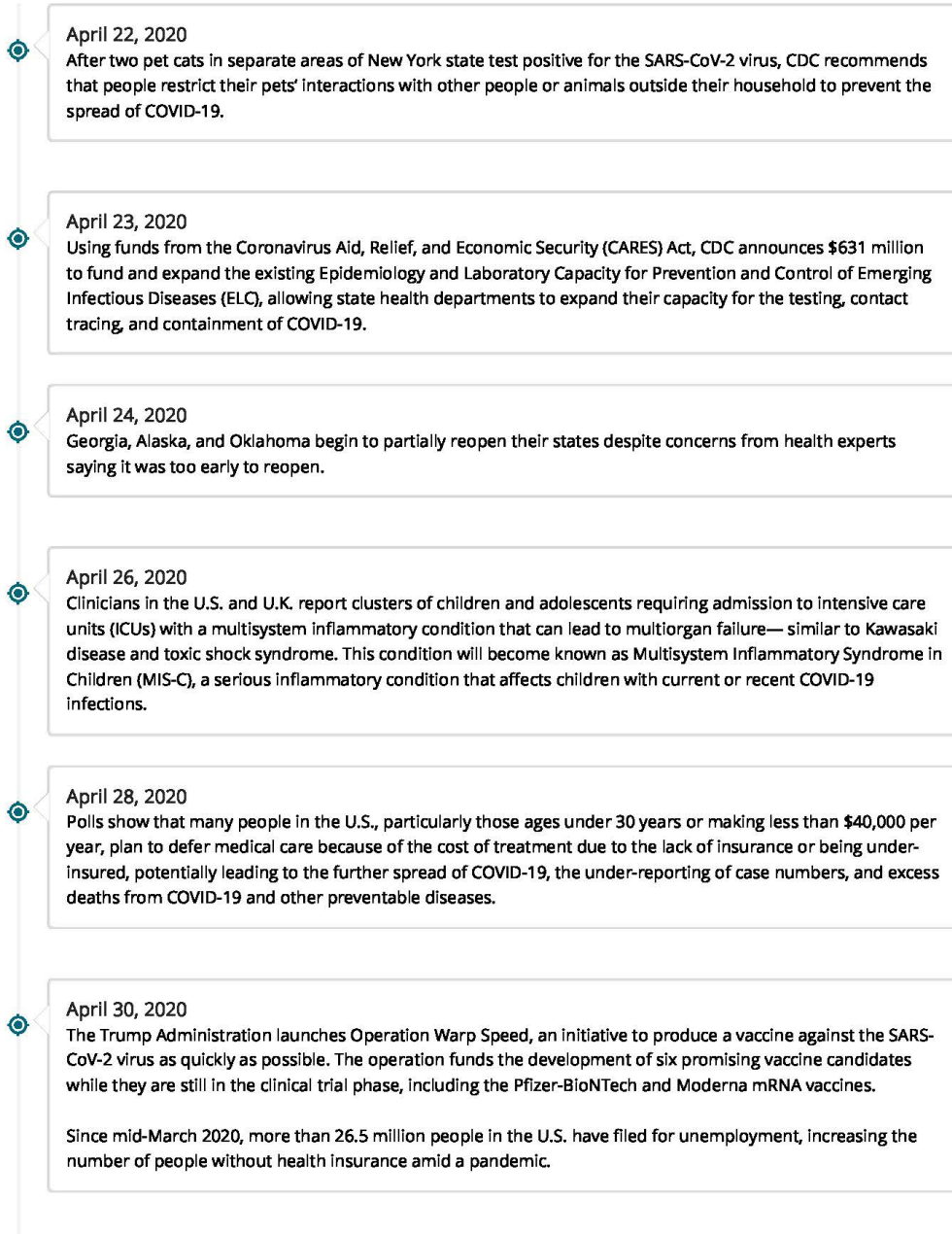
More than 1 million cases of COVID-19 had been confirmed worldwide, a more than ten-fold increase in less than a month.



April 6, 2020

Hundreds of doctors and civil rights groups urge CDC and the U.S. government to release race and ethnicity data on COVID-19 case-numbers in order to reveal the true impact of the virus on communities of color.





Mid 2020



May 1, 2020

FDA issues an emergency use authorization (EUA) for the use of the antiviral drug Remdesivir for the treatment of suspected or confirmed COVID-19 in people who are hospitalized with severe disease.

CDC develops the "PPE Burn Rate Calculator," a spreadsheet-based model made to help healthcare facilities plan and optimize the use of personal protective equipment or PPE for the COVID-19 response and publishes it on the Apple and Android App stores.

CDC launches the SARS-CoV-2 Sequencing for Public Health Emergency Response, Epidemiology and Surveillance (SPHERES), a national network to provide real-time genomic sequencing data to public health response teams investigating COVID-19 cases, allowing them to track the SARS-CoV-2 virus as it evolves.

As some countries discuss re-opening, WHO convenes the International Health Regulation Emergency Committee for a third time and declares that the global COVID-19 pandemic remains a Public Health Emergency of International Concern (PHEIC).



May 8, 2020

The Associated Press reports that top White House officials blocked a CDC document "Guidance for Implementing the Opening Up America Again Framework" that included detailed advice on how to safely reopen the country.

FDA authorizes the first COVID-19 test with the option of using home-collected saliva samples.



May 9, 2020

The unemployment rate in the U.S. is 14.7%— the highest since the Great Depression. With 20.5 million people out of work, the hospitality, leisure, and healthcare industries take the greatest hits overall, affecting essential workers, people with lower incomes, and racial and ethnic minority workers disproportionately.



May 11, 2020

President Trump holds a briefing in the White House Rose Garden to claim that anyone who wants to get a coronavirus test can get one and encourages businesses around the country to reopen. He does not wear a mask.



May 12, 2020

Dr. Anthony Fauci, the Director of the National Institute of Allergy and Infectious Diseases (NIAID), testifies before the U.S. Senate that experts believe more people have died from COVID-19 than have been officially reported and warns against "re-opening" too quickly.



May 15, 2020

New estimates from a University of Michigan study revise the survival rate for people with COVID-19 who are put on a ventilator from as low as 10% – 12% to between 25% – 50%.

CDC's Chief Health Equity Officer officially joins CDC's COVID-19 response. This is the first time in the agency's history that a senior leader within the incident management structure has the sole purpose of advocating for greater health equity across an entire emergency response.

CDC distributes a warning for clinicians through the Health Alert Network describing Multisystem Inflammatory Syndrome in Children (MIS-C), a serious inflammatory condition that affects children with current or recent COVID-19 infections.



May 18, 2020

HHS awards states, territories, and local jurisdictions \$11 billion in new funding to support testing for COVID-19: CDC will provide \$10.25 billion to states, territories, and local jurisdictions through CDC's Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) and the Indian Health Service (IHS) will provide \$750 million to IHS, tribal, and urban Indian Health programs to expand testing capacity.

Navajo Nation now has the highest COVID-19 infection rate per capita in the U.S.



May 21, 2020

AstraZeneca receives more than \$1 billion from the U.S. government in funding for the development of the AstraZeneca/Oxford University COVID-19 vaccine, with the first doses due to arrive in September 2020.



May 22, 2020

The *Lancet* publishes a large study showing that COVID-19 patients who received the anti-malaria drug hydroxychloroquine die at higher rates and experience more cardiac complications than COVID-19 patients who do not receive the drug. This study will shortly be retracted due to data misuse, but multiple other studies have since shown that hydroxychloroquine is neither harmful nor beneficial in the treatment of COVID-19.



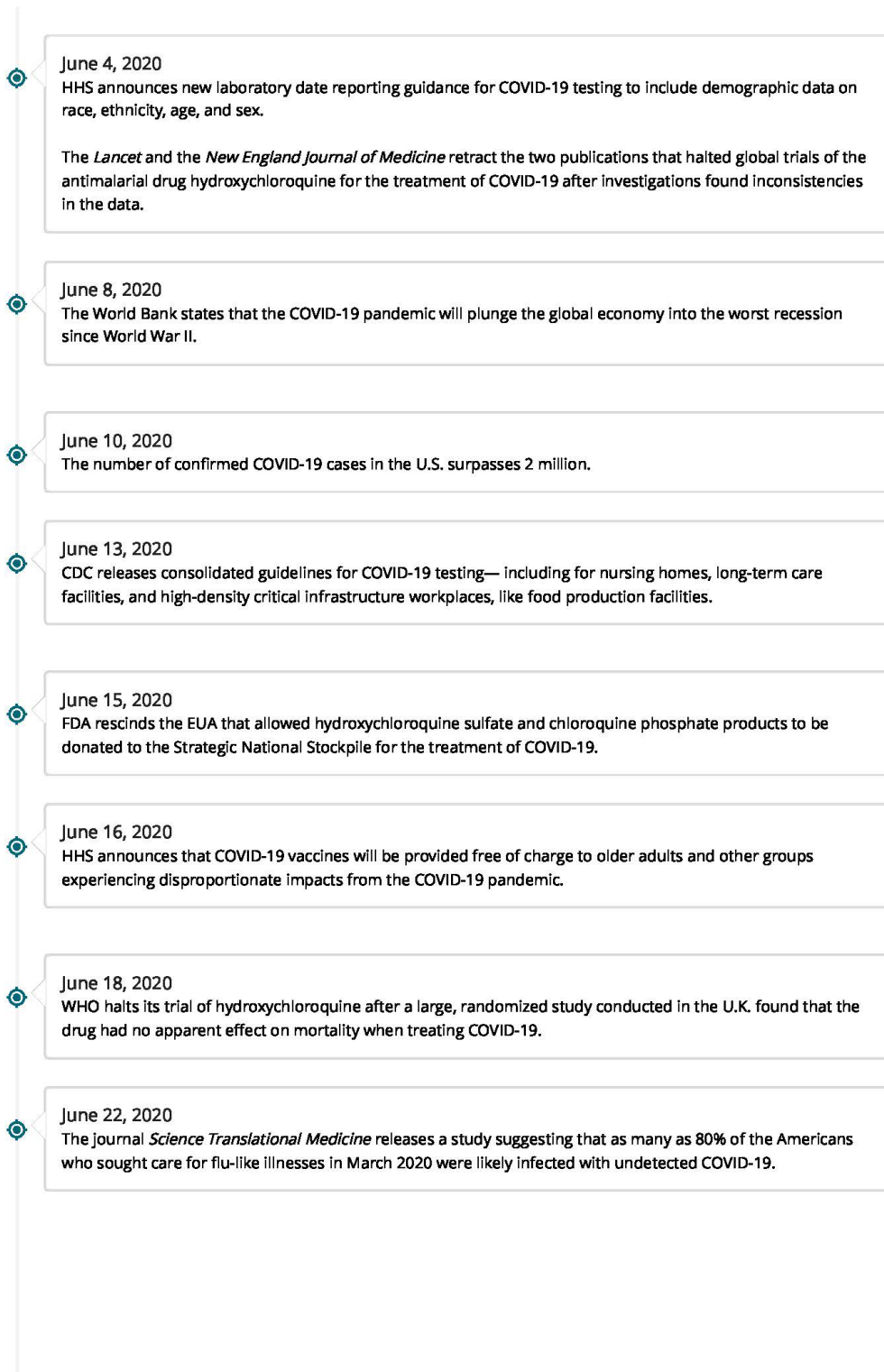
May 26, 2020

Navajo officials implement a series of mitigation efforts including extended weekend lockdowns, curfews, stay-at-home orders, masking, and checkpoints, as younger generations of Navajo begin to launch grassroots social media campaigns like "Protect the Sacred" to provide health information and help defend their people and cultural heritage from COVID-19— the Navajo become a model for implementing a unified pandemic response.



May 28, 2020

The recorded death toll from COVID-19 in the U.S. surpasses 100,000.





June 24, 2020

Three weeks after Black Lives Matter protests broke out across the country in the wake of the deaths of George Floyd and Breonna Taylor, data from 300 of the largest U.S. cities found no evidence of a COVID-19 spike in the weeks following the beginning of the protests— researchers determined that social distancing behaviors went up as people tried to avoid the protests.



June 25, 2020

CDC expands the list of people at increased risk for severe COVID-19 illness by removing the specific age threshold, instead noting that risk increases with age. CDC also includes people experiencing chronic kidney disease, COPD, obesity, serious heart conditions, sickle cell disease, and type 2 diabetes, and those who are immunocompromised from solid organ transplants.



June 29, 2020

Despite its development and clinical trials being supported by as much as \$6.5 billion in public funds, Gilead Sciences sets the price of Remdesivir, an anti-viral used to treat COVID-19 that can shorten hospital stays and reduce the need for mechanical ventilation, at \$3,120 for one typical treatment course (\$520 per vial) for insured patients in the U.S.



June 30, 2020

Dr. Anthony Fauci warns a Senate committee that the number of new COVID-19 cases in the U.S. could soon rise from 40,000 to 100,000 new infections every day, likely overwhelming an already burdened healthcare system.



July 6, 2020

More than 200 scientists sign an open letter asking WHO to update its COVID-19 guidelines to include warnings about airborne transmission.



July 7, 2020

The number of confirmed COVID-19 cases in the U.S. surpasses 3 million.

The U.S. begins the process of withdrawing from WHO.



July 9, 2020

WHO announces that the SARS-CoV-2 virus that causes COVID-19 can be transmitted through the air and is likely being spread by asymptomatic individuals.



July 14, 2020

CDC again calls on all people to wear cloth face masks when leaving their homes to prevent the spread of COVID-19, calling masks “a critical tool in the fight against COVID-19.”

Florida, Texas, Oklahoma, Mississippi, North Carolina, South Carolina, and Georgia have both the greatest percentage of adults who are currently uninsured and the highest numbers of new COVID-19 cases.



July 15, 2020

A mandate from the Trump Administration directs hospitals nationwide to stop sending critical information about COVID-19 hospitalization rates and equipment availability to CDC and instead report this data to a new system set up by HHS using a private contractor, raising concerns over the politicization of public health, data, and privacy.



July 16, 2020

Many states, including California, Michigan, and Indiana postpone re-opening plans as COVID-19 case numbers rise.

The U.S. reports a record number of COVID-19 infections in a single day, with 75,600 new cases reported.

CDC extends the no sail order for all cruise ships through September 30, 2020.



July 22, 2020

The Department of Defense (DOD) and HHS reach a deal with Pfizer BioNTech for the delivery and distribution of 100 million doses of the Pfizer BioNTech COVID-19 vaccine candidate in December 2020, upon confirmation that the vaccine is safe and effective.

Antibody data examined by CDC shows that there were about 10 times more SARS-CoV-2 infections than first reported in March 2020 – May 2020 (depending on the region, there were 6 to 24 times more cases than were initially reported).



July 23, 2020

CDC releases resources for school administrators, teachers, parents, guardians, and caregivers to help build appropriate public health strategies to slow the spread of COVID-19 in a school environment.



August 4, 2020

A study finds that more than 50% of all people living in rural areas in the U.S. have no intensive care unit (ICU) beds available (only 3% of the communities with higher incomes had no ICU beds). High rates of COVID-19 infections, chronic health conditions, limited testing, and inadequate access to healthcare could all lead to significant COVID-19 mortality among people living in rural communities.



August 11, 2020

The Trump Administration agrees to pay \$1.5 billion, or \$15 per-dose, to Moderna for 100 million doses of COVID-19 vaccine.



August 12, 2020

Obesity is found to increase the risk of mortality from COVID-19 disease, especially among men and younger people— even when isolated from racial, ethnic, or socioeconomic disparities.



August 14, 2020

CDC reports results from a representative panel survey on mental health conducted among adults across the U.S. in June of 2020: 41% of responders reported struggling with mental health and 11% had seriously considered suicide recently. Essential workers, unpaid caregivers, young adults, and racial and ethnic minority groups were found to be at higher risk for experiencing mental health struggles, with 31% of unpaid caregivers reporting considering suicide.

CDC releases data indicating that most COVID-19 positive people are infectious to others for up to 10 days after symptoms first appear, but that individuals with severe illness or who are immunocompromised may be infectious for up to 20 days.



August 15, 2020

FDA issues an EUA to the Yale School of Public Health for its rapid diagnostic test for COVID-19 SalivaDirect. The test uses a new and more flexible method of containing and processing saliva samples when testing for COVID-19, allowing laboratories to increase capacity and efficiency in testing.



August 17, 2020

COVID-19 becomes the 3rd leading cause of death in the U.S. Deaths from COVID-19 now exceed 1,000 per day and nationwide cases exceed 5.4 million.



August 19, 2020

After CDC studies show that American Indians and Alaska Natives are among the racial and ethnic minority group at higher risk for severe COVID-19 outcomes, CDC provides more than \$200 million in COVID-19 funding to Indian Country.



August 22, 2020

A study published by the *Journal of the American Medical Association* calls into question the clinical benefits of the anti-viral drug Remdesivir being used to treat patients hospitalized with COVID-19.



August 23, 2020

FDA issues an EUA for use of convalescent plasma (the liquid component of blood that, when taken from someone who has recently recovered from an infection, can contain antibodies to that illness) to treat people hospitalized with severe COVID-19.



August 24, 2020

The first documented case of COVID-19 reinfection is confirmed by the University of Hong Kong.



August 26, 2020

FDA issues an EUA for Abbott's BinaxNOW Covid-19 Test Kit— a rapid antigen test that can detect a COVID-19 infection in 15 minutes using the same technology as a flu test.



August 28, 2020

The first documented case of COVID-19 reinfection in the U.S. is confirmed by the Nevada State Public Health Laboratory.

Late 2020



September 1, 2020

The U.S. and China decline to join the COVID-19 Vaccine Global Access Facility, or COVAX, a global program spearheaded by WHO that aims to develop and distribute COVID-19 vaccines worldwide— more than 170 other nations sign on.



September 3, 2020

The *Journal of the American Medical Association* and WHO now recommend the use of steroids for the treatment of severe COVID-19 disease after multiple studies find that steroids like dexamethasone, hydrocortisone, and methylprednisolone— a group of cheap and widely available drugs that reduce inflammation and immune response— can reduce mortality in severe cases of COVID-19 by up to 36%.



September 11, 2020

CDC releases data in a *Morbidity and Mortality Weekly Report (MMWR)* showing that because of concerns about COVID-19, an estimated 41% of U.S. adults had delayed or avoided seeking medical care, including urgent or emergency care. Unpaid caregivers for adults, people with underlying medical conditions, Black adults, non-White Hispanic adults, young adults, and people with disabilities are the most affected.



September 14, 2020

CDC ends the symptom-based COVID-19 screenings of air travelers from China (including Hong Kong and Macau), Iran, the Schengen area of Europe (26 European countries that have officially abolished all passport and all other types of border control at their mutual borders), and the U.K., citing limited effectiveness due to asymptomatic spread.

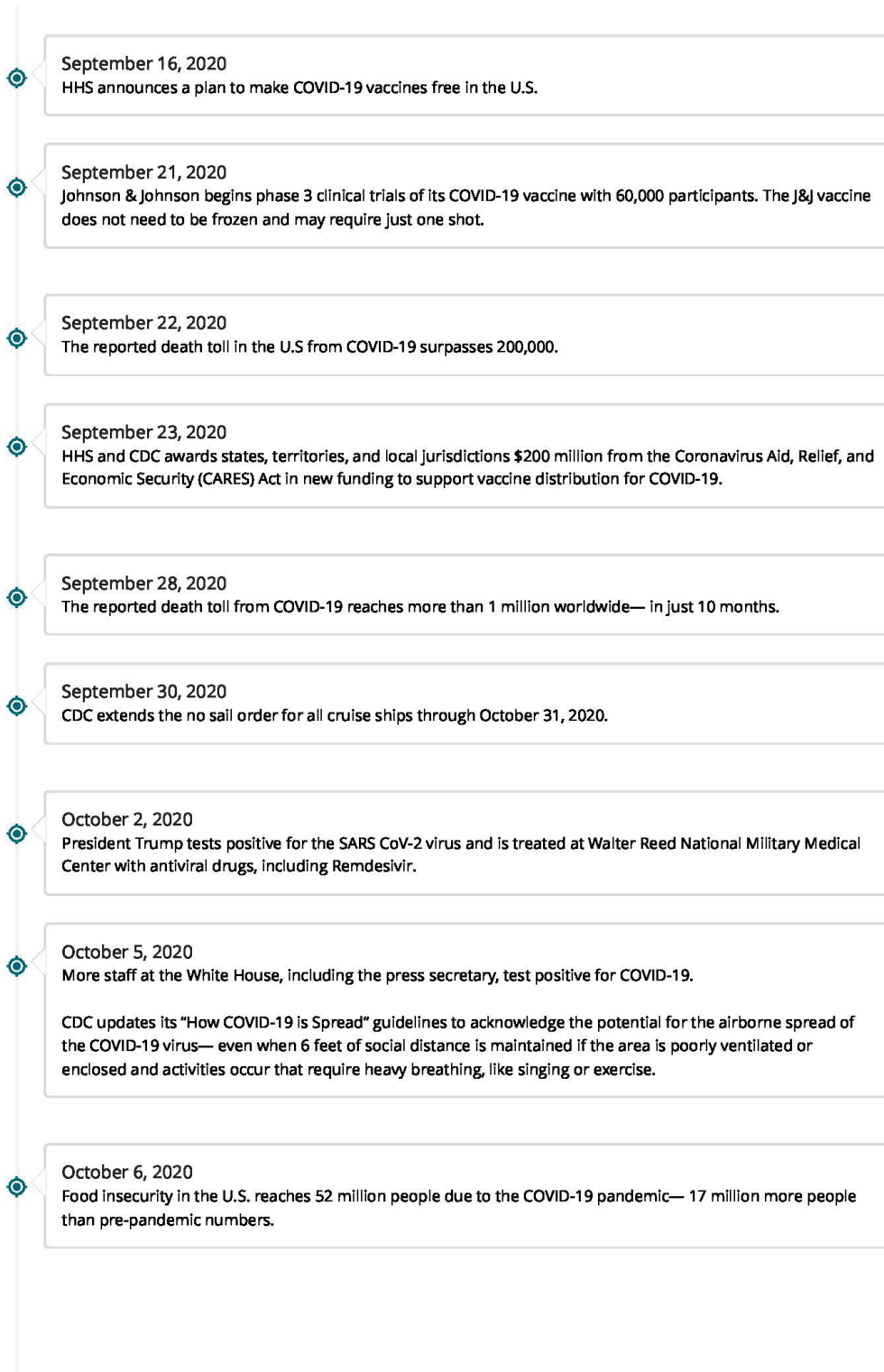
Pfizer BioNTech expands phase 3 clinical trials of its COVID-19 vaccine to 44,000 participants— increasing the trial population diversity to include adolescents as young as 16 years and people with chronic, stable HIV, hepatitis C, or hepatitis B infections. The Pfizer/BioNTech vaccine is a 2-shot series given 3 weeks apart and must be stored at a temperature of –70 degrees Celsius (or –94 degrees Fahrenheit).

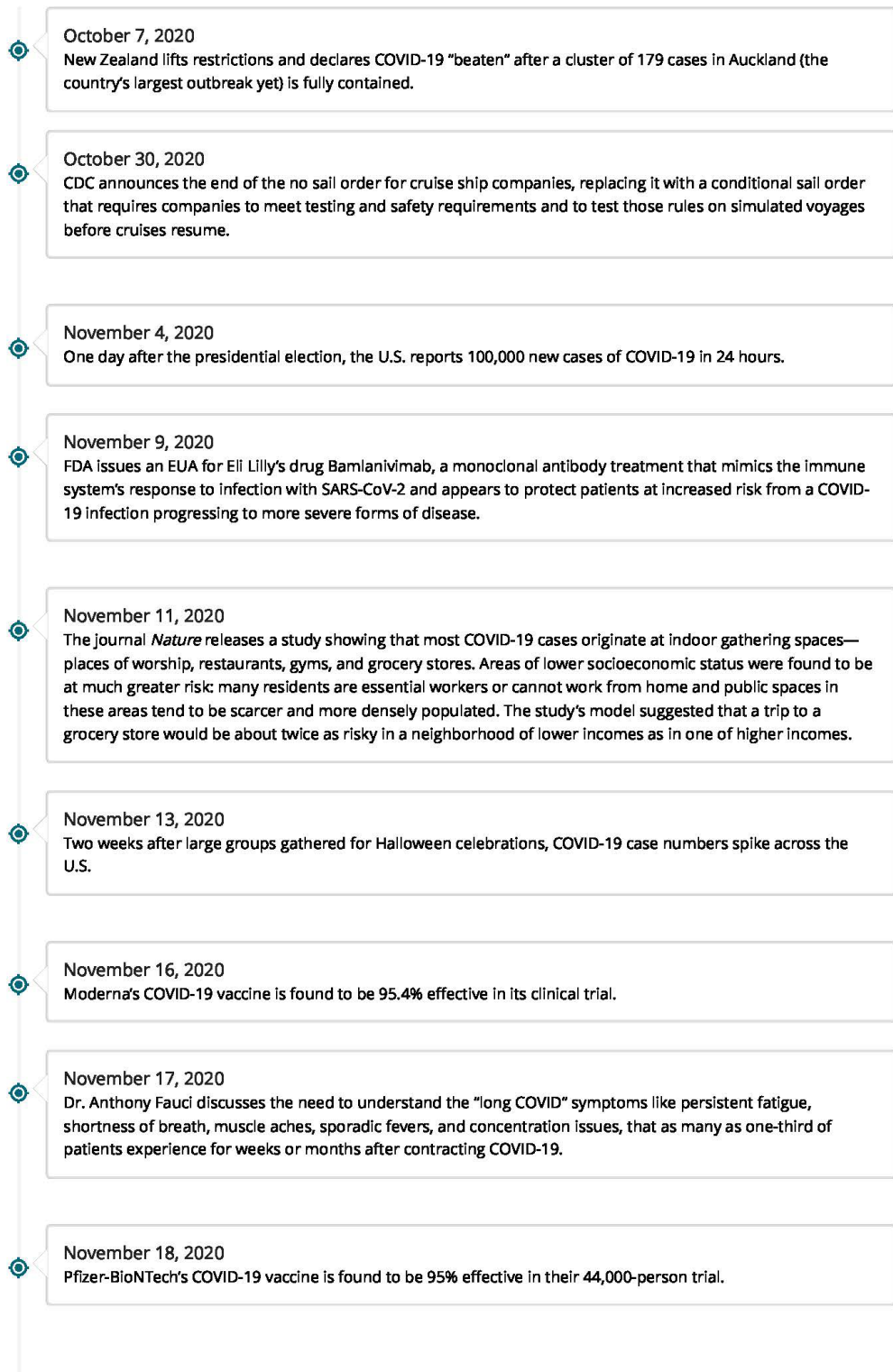


September 15, 2020

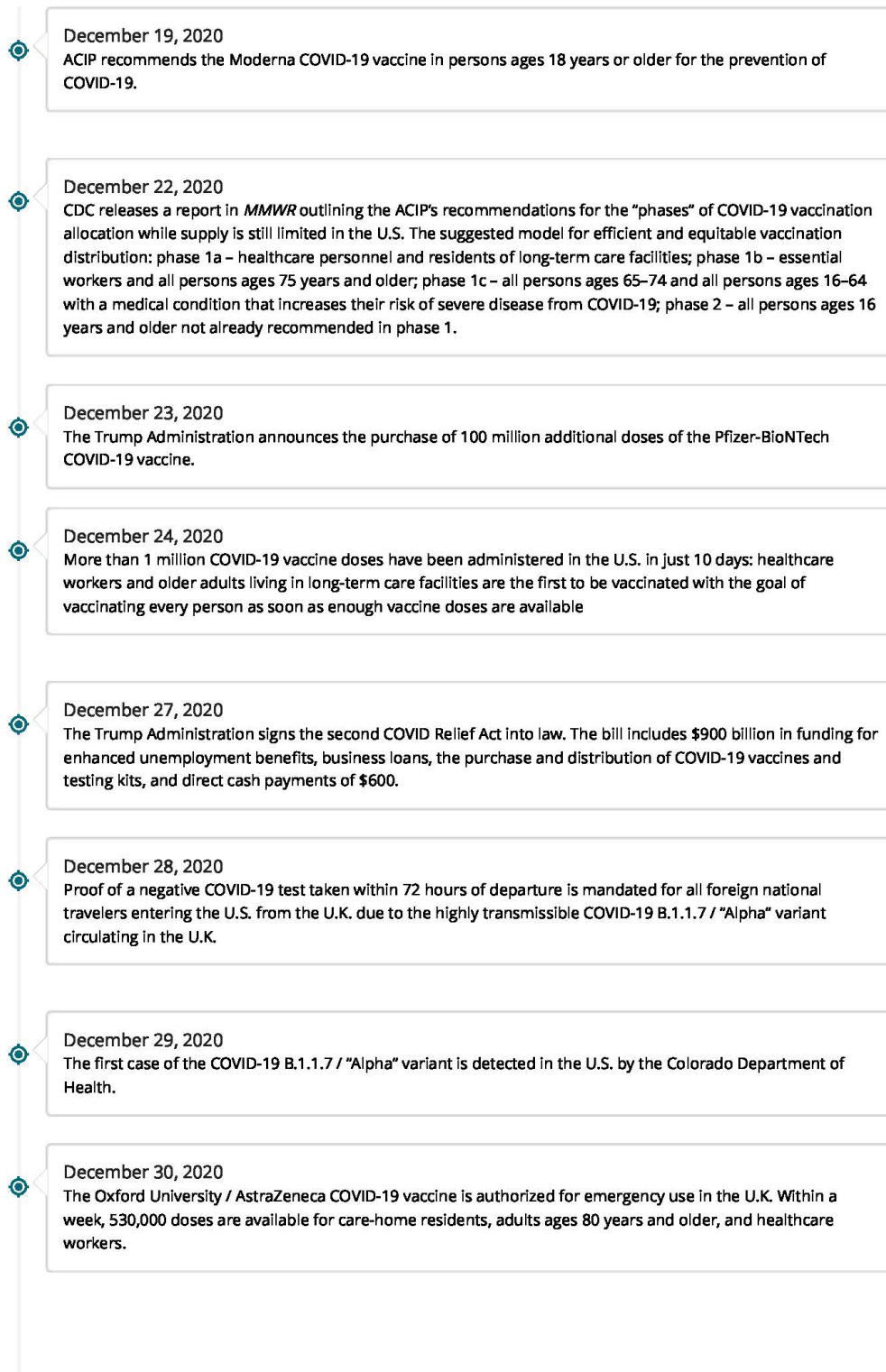
CDC releases data in *MMWR* from a study showing that people who recently tested positive for the SAR-CoV-2 virus were more than twice as likely to have recently dined out and more than four times as likely to have recently visited a bar or café.

CDC releases an infographic guide to help schools mitigate COVID-19 transmission in schools.











December 31, 2020

One year anniversary of the first reported case of COVID-19 to WHO.

2.8 million people in the U.S. have received a COVID-19 vaccine dose— far short of the nation's goal of 20 million.

Early 2021



January 6, 2021

HHS and CDC announce plans to provide \$22 billion in funding for states, localities, and territories to support expanded COVID-19 testing and vaccine distribution from the Coronavirus Response and Relief Supplemental Appropriations Act.



January 8, 2021

Amid vaccine shortages, scientists at Pfizer-BioNTech, Moderna, and the National Institutes of Health (NIH), look for ways to double the supply to prevent future shortages.



January 12, 2021

CDC expands the COVID-19 negative test requirement to include all air passengers entering the U.S. CDC continues to recommend that people test again 3-5 days after arrival and stay home for 7 days after traveling to help slow the spread of COVID-19.



January 18, 2021

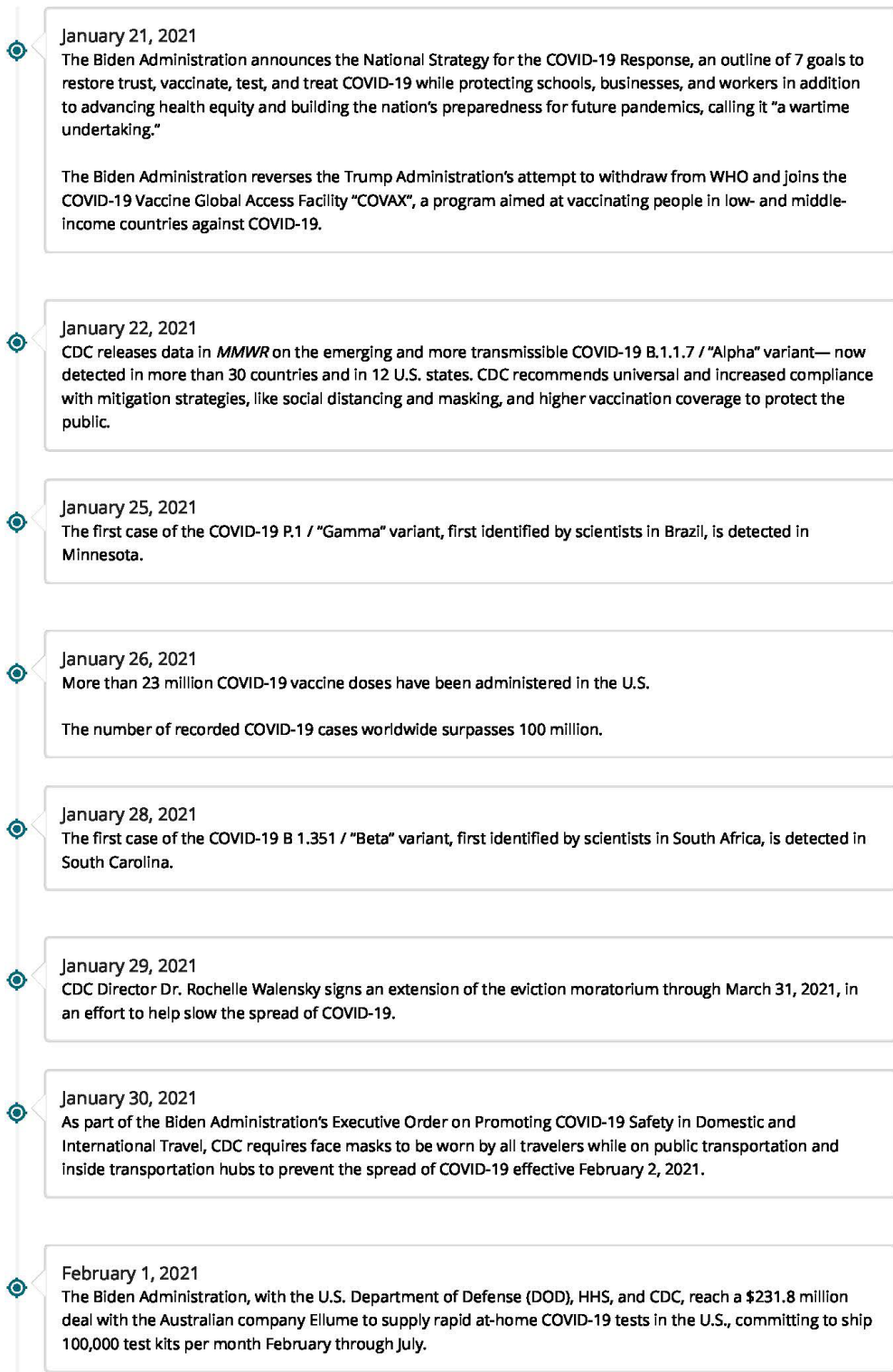
The reported death toll from COVID-19 in the U.S. surpasses 400,000.

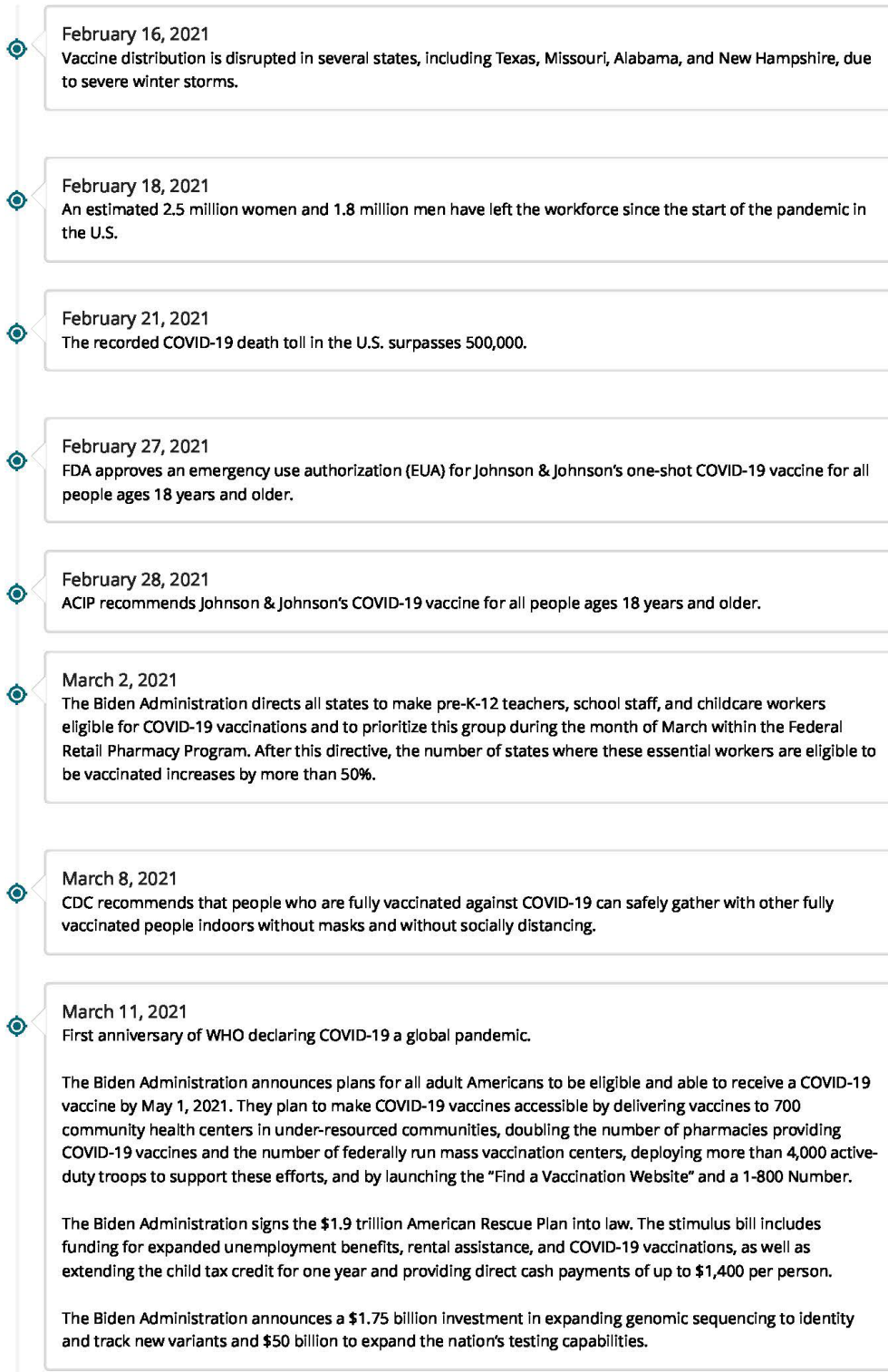


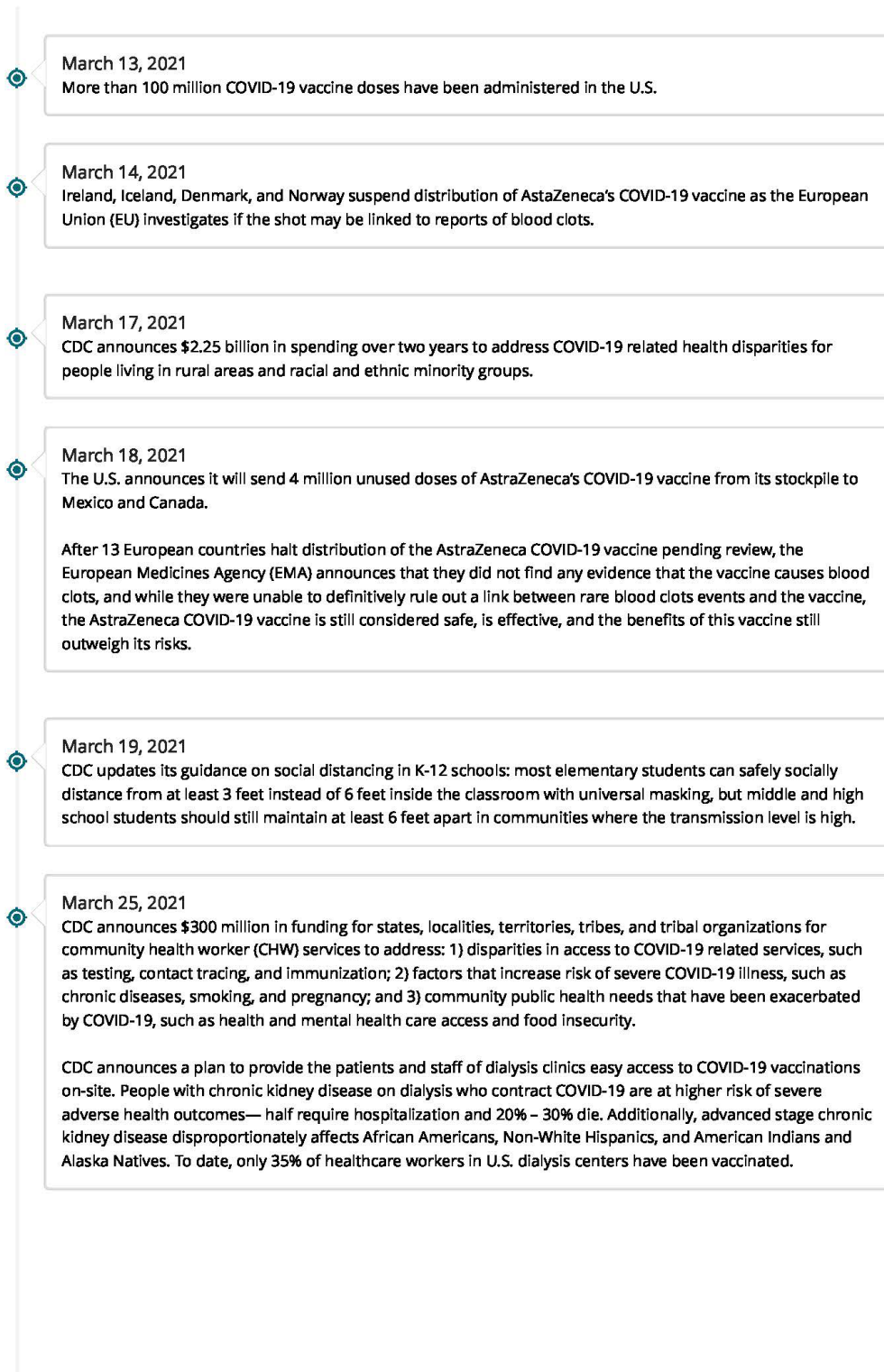
January 20, 2021

Dr. Rochelle Walensky begins her term as the director of the CDC with the goal of rapidly accelerating COVID-19 testing, surveillance, and vaccination, while confronting the public health challenges posed by suicide, substance use disorder and overdose, chronic diseases and the tolls caused by social and racial injustice and inequity.

First anniversary of the first laboratory-confirmed case of COVID-19 in the U.S. from samples taken in Snohomish County, Washington and of CDC activating its Emergency Response Center (EOC) to respond to the novel coronavirus.









March 29, 2021

A CDC study finds that mRNA COVID-19 vaccines, Pfizer-BioNTech and Moderna, are highly effective at preventing infection with the SARS-CoV-2 virus in real-world conditions among healthcare personnel, first responders, and other essential workers (groups that are more likely than the general population to be exposed to the virus because of their occupations), reducing their risk of infection by 90%.

CDC Director Dr. Rochelle Walensky extends the eviction moratorium through June 30, 2021, in an effort to help slow the spread of COVID-19.



March 31, 2021

CDC, in collaboration with the National Institutes of Health (NIH), launches the community health testing program called "Say Yes! COVID Test" in Pitt County, North Carolina and Chattanooga/Hamilton County, Tennessee, providing 160,000 residents with access to free, at-home COVID-19 tests to use up to three times a week for one month in an effort determine if frequent self-testing can reduce community spread of COVID-19.



April 2, 2021

CDC recommends that people who are fully vaccinated against COVID-19 can safely travel at lower-risk to themselves.



April 3, 2021

CDC announces \$3 billion in additional funding for expanded COVID-19 vaccination programs.



April 6, 2021

CDC estimates that nearly 80% of pre-K-12 teachers, school staff, and childcare workers in the U.S. have received at least their first shot of COVID-19 vaccine.



April 8, 2021

CDC Director Dr. Rochelle Walensky releases a statement on racism and health amid the COVID-19 pandemic, writing: "Yet, the disparities seen over the past year were not a result of COVID-19. Instead, the pandemic illuminated inequities that have existed for generations and revealed for all of America a known, but often unaddressed, epidemic impacting public health: racism."



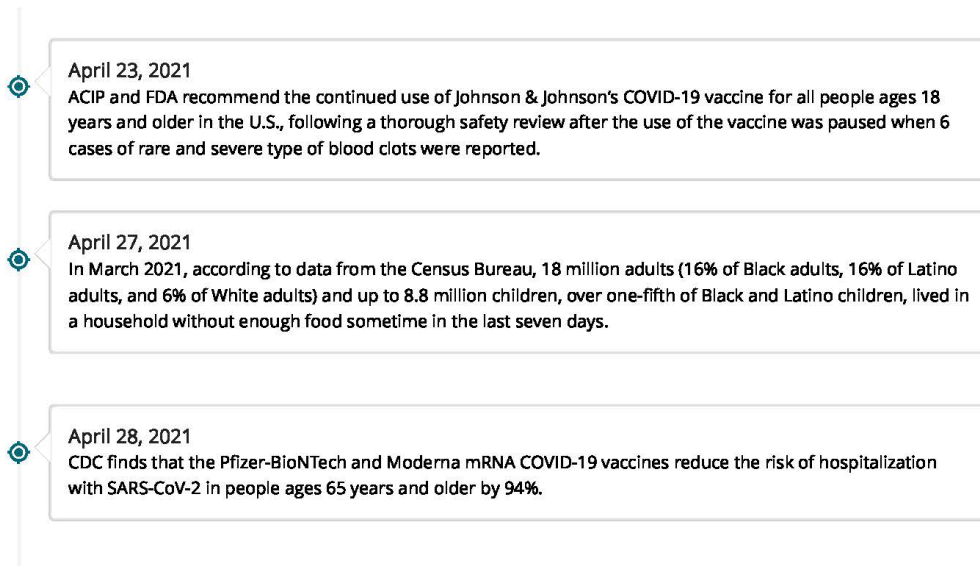
April 13, 2021

CDC and FDA issue a joint statement recommending pausing the use of the Johnson & Johnson's COVID-19 vaccine while six cases of a rare and serious blood clot in people who received the J&J COVID-19 vaccine are investigated.

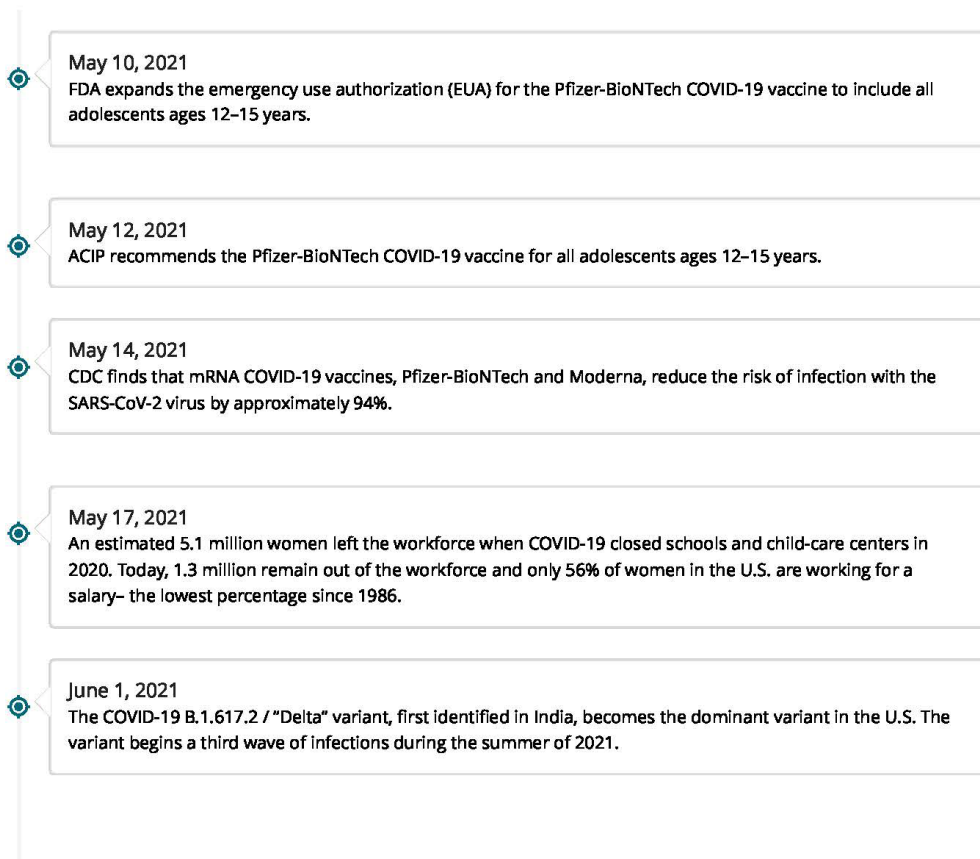


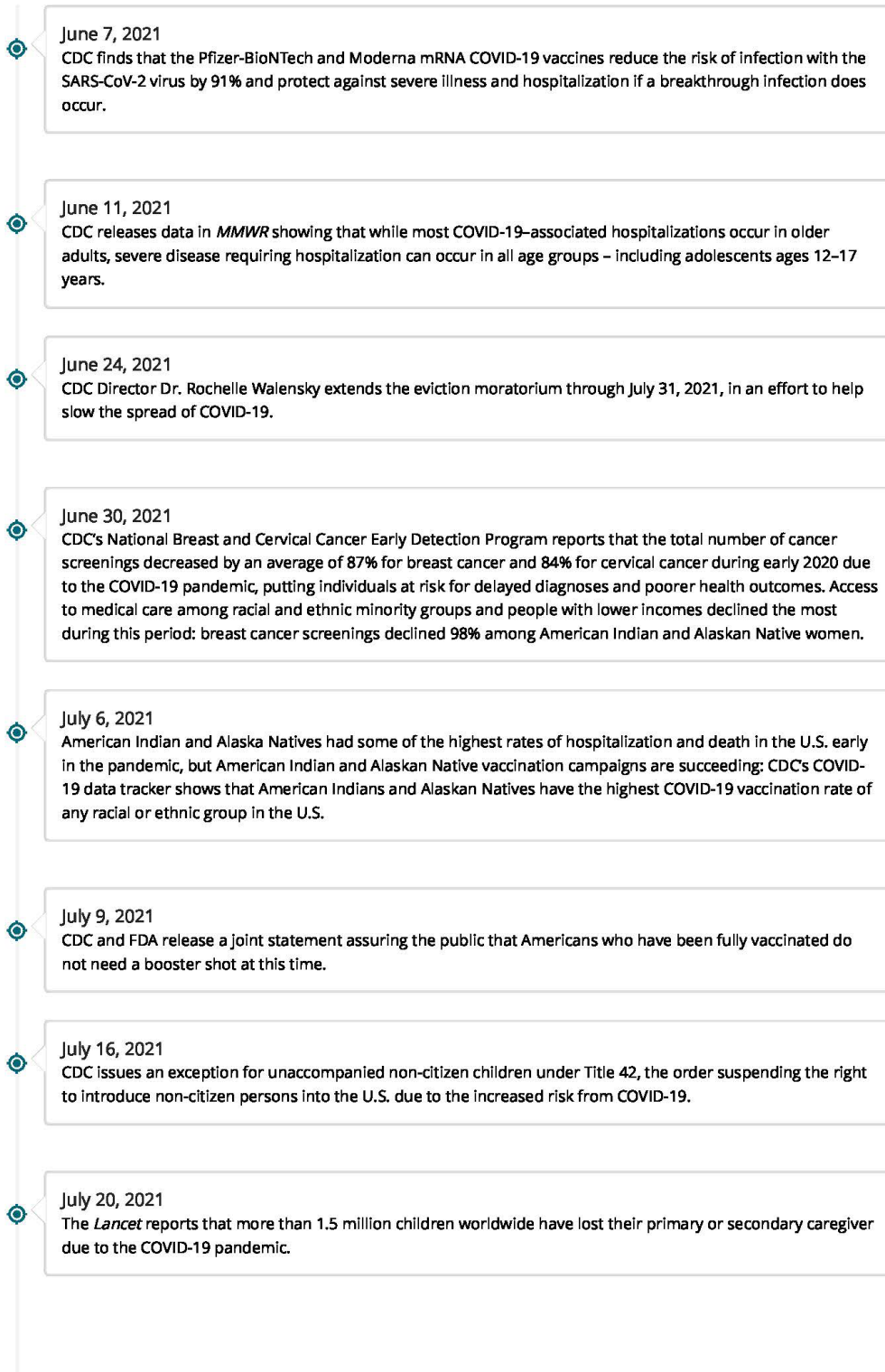
April 21, 2021

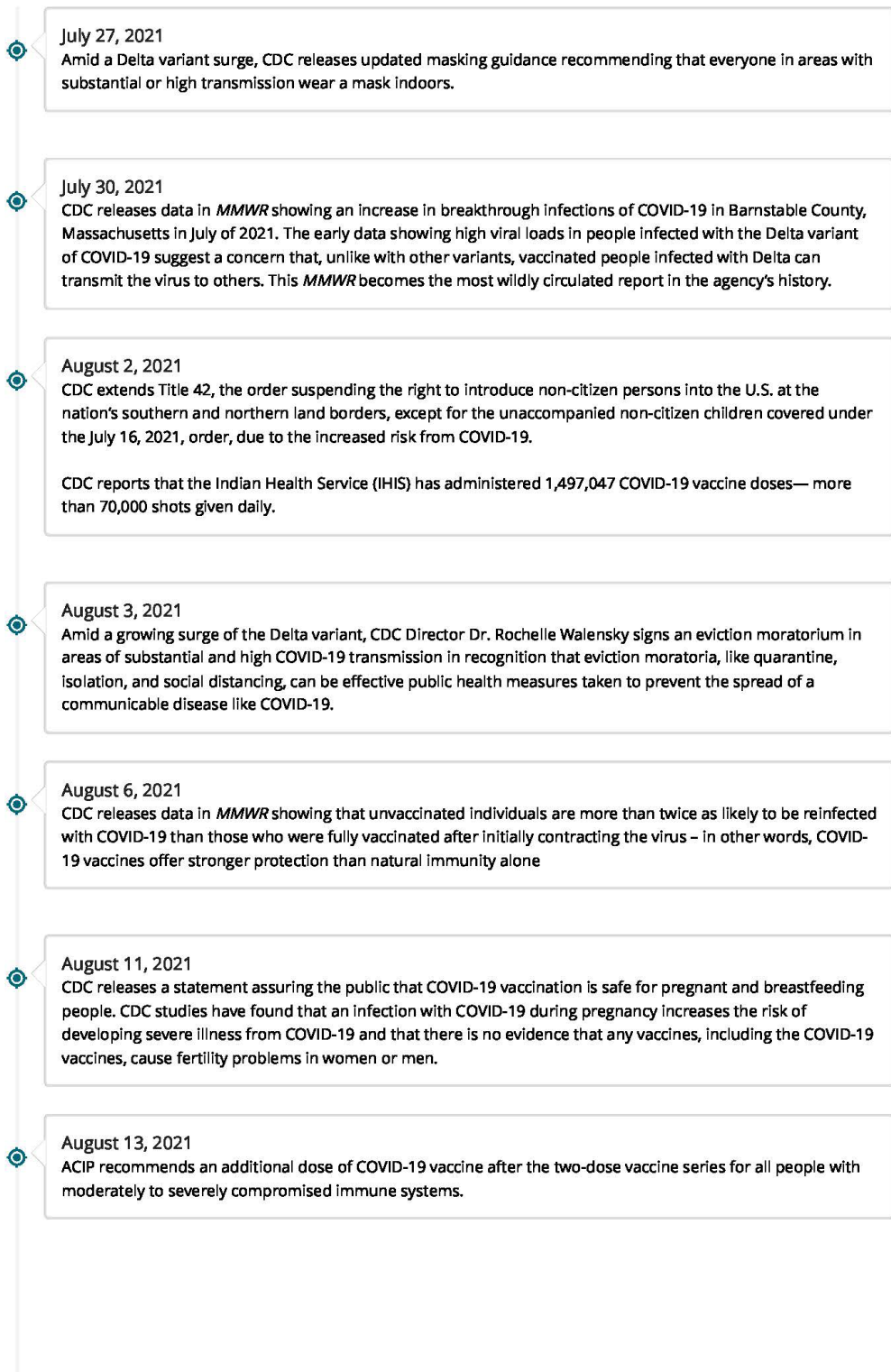
More than 200 million COVID-19 vaccine doses have been administered in the U.S.



Mid 2021









August 18, 2021

CDC announces a new center, the Center for Forecasting and Outbreak Analytics (CFA), which aims to improve the nation's ability to forecast and model emerging health threats, including pandemics like COVID-19, using data analytics.

HHS, CDC, and FDA release a statement concluding that booster shots of the Pfizer-BioNTech, Moderna, and Johnson & Johnson COVID-19 vaccines will be needed to protect against severe disease, hospitalization, and death in the coming months.



August 23, 2021

FDA fully approves the Pfizer-BioNTech COVID-19 vaccine for all people ages 18 years and older. Full FDA approval further reinforces that the Pfizer-BioNTech COVID-19 vaccine has been shown to meet the agency's high standards for safety, effectiveness, and consistent quality in manufacturing.



August 30, 2021

ACIP recommends Pfizer-BioNTech's COVID-19 vaccine for all people ages 16 years and older.

Late 2021



September 1, 2021

CDC releases a digital toolkit for individuals with Intellectual and Developmental Disabilities (IDD) and their caregivers to navigate the COVID-19 pandemic, with communication resources like videos, stories, posters, and interactive activities about getting tested, vaccinated, masking, and social distancing. To date, CDC has also released more than 40 videos and 25 web resources in American Sign Language (ASL) on COVID-19.



September 3, 2021

CDC announces an additional \$300 million in funding for community health worker services to support COVID-19 prevention and control.



September 17, 2021

The Biden Administration, working through CDC, invests \$2.1 billion in funding for state, local, and territorial public health departments to give them the resources needed to prevent infections in healthcare settings, detect and contain infectious organisms, enhance laboratory capacity, and combat infectious disease threats, including COVID-19.



September 24, 2021

ACIP recommends Pfizer-BioNTech's COVID-19 vaccine boosters for all people ages 65 years and older, residents of long-term care settings, people ages 50–64 years with underlying medical conditions, and people ages 18–49 years with underlying medical conditions and / or who live or work in high-risk settings to be given at least 6 months after their primary vaccination series.

CDC releases three studies in *MMWR* looking at the COVID-19 pandemic's effect on education. Despite school closures in some areas, around 96% of K-12 schools have remained open for in-person learning and schools without universal indoor mask mandates were more than three times more likely to have COVID-19 outbreaks than the K-12 schools that required universal masking from day one.



September 29, 2021

CDC issues an urgent health advisory to increase COVID-19 vaccination rates among people who are pregnant, breastfeeding, or who are trying to become pregnant. More than 22,000 pregnant people have been hospitalized with COVID-19 and 161 have died. COVID-19 in pregnant people carries a two-fold risk of admission to intensive care, a 70% increased risk of death, and adverse pregnancy outcomes that can include preterm birth, stillbirth, and the admission of a newborn into the ICU with COVID-19.



October 6, 2021

WHO publishes a clinical case definition of "post COVID-19 condition" or long COVID. The symptoms of long COVID include, but are not limited to, fatigue, shortness of breath, and / or cognitive dysfunction that persists for at least two months and impacts everyday life, three months from the onset of an initial COVID-19 infection.



October 7, 2021

More than 140,000 children in the U.S. have lost their primary or secondary caregiver to the COVID-19 pandemic. One of every 168 American Indian and Alaska Native children, 1 of every 310 Black children, 1 of every 412 non-White Hispanic children, 1 of every 612 Asian children, and 1 of every 753 White children have now experienced orphanhood or the death of caregivers.

CDC adds mental health conditions to the list of risk factors associated with severe illness from COVID-19.



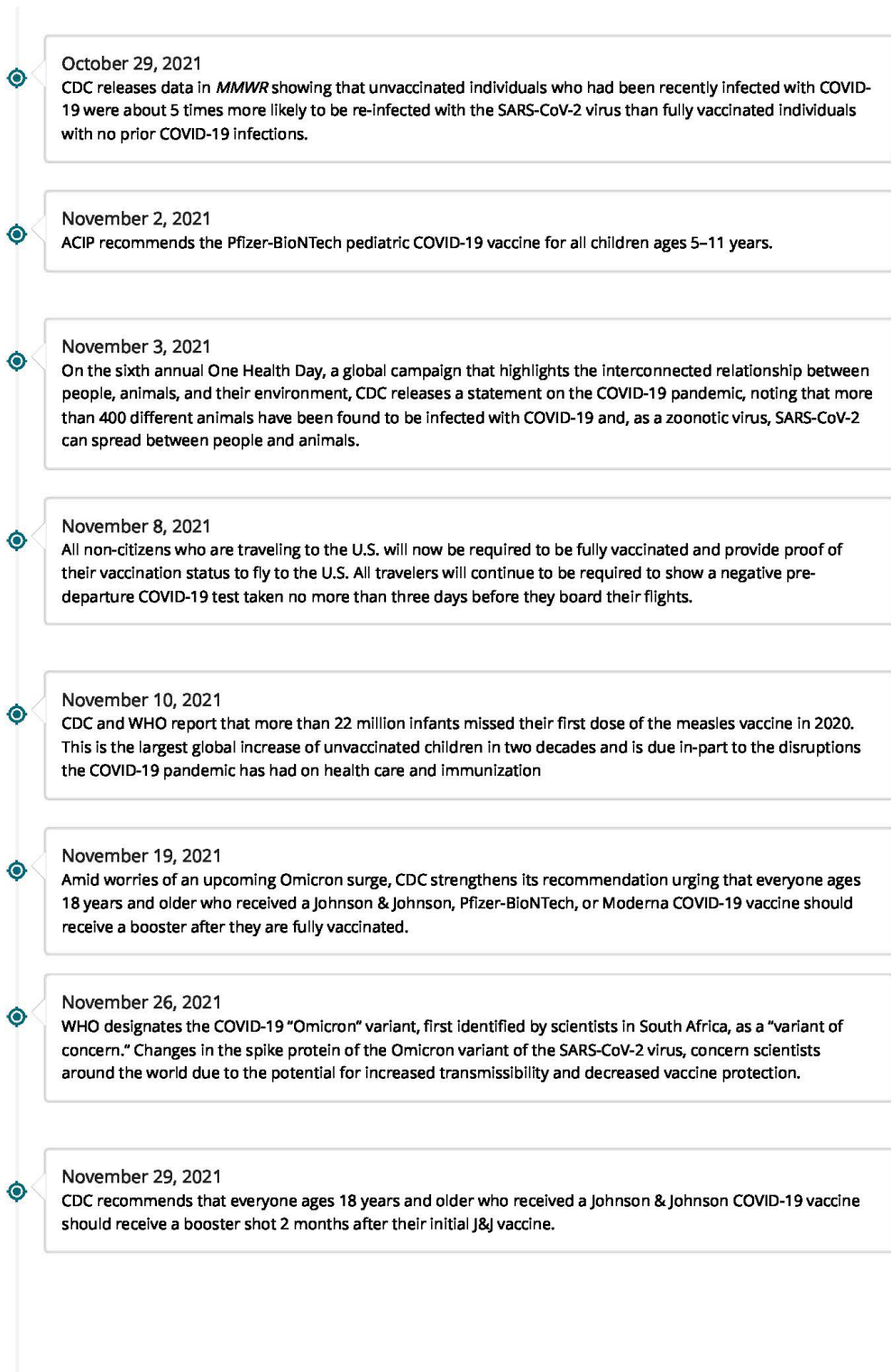
October 21, 2021

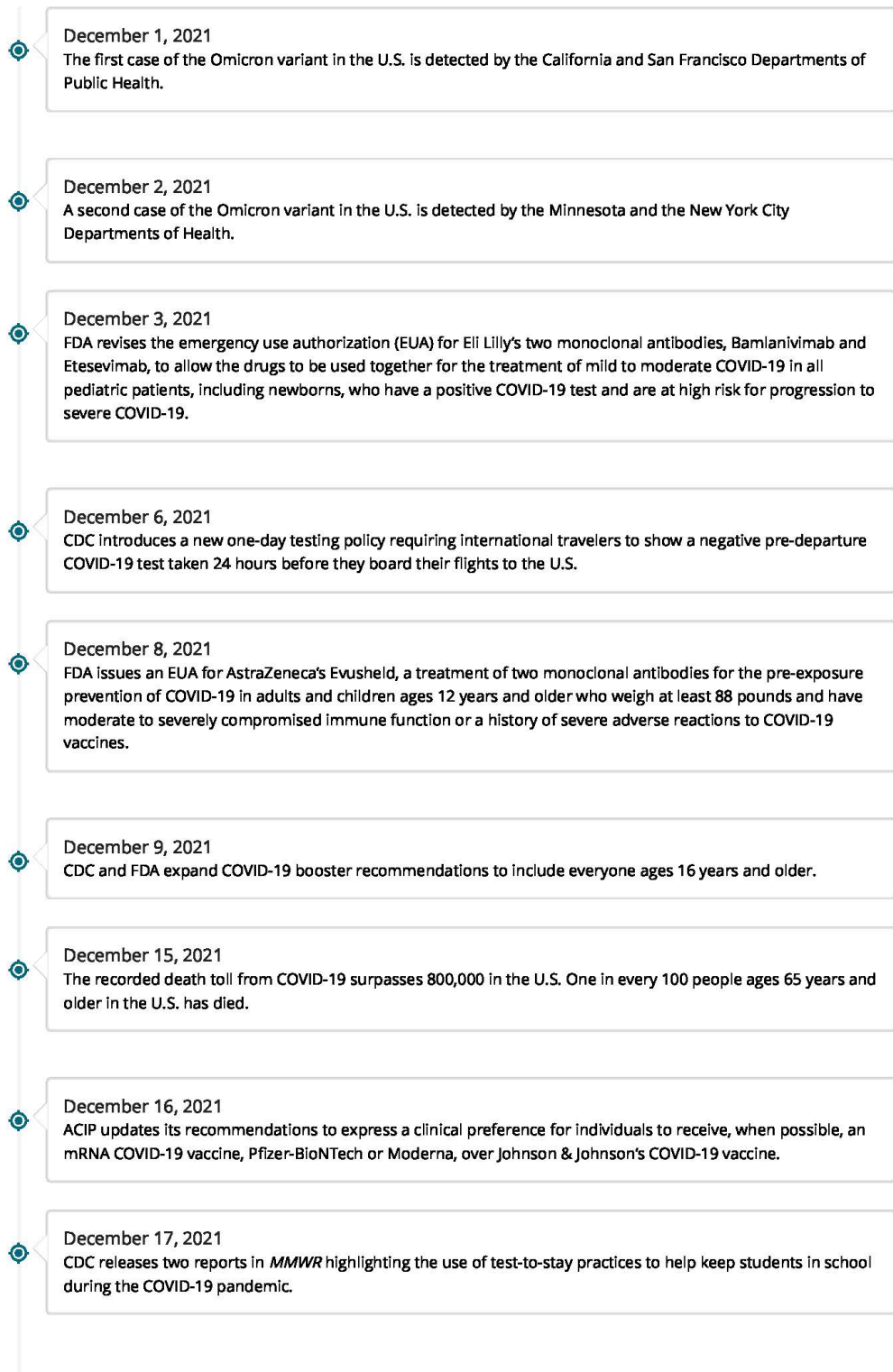
ACIP recommends Moderna or Pfizer-BioNTech's COVID-19 vaccine boosters for all people ages 65 years and older and all people ages 18 years and older who are residents of long-term care settings, have underlying medical conditions, and who live or work high-risk settings to be given least 6 months after their primary vaccination series. ACIP also recommends booster shots for everyone who received Johnson & Johnson's COVID-19 vaccine more than two months ago.



October 26, 2021

CDC announces \$26 million in funding for CDC's new Center for Forecasting and Outbreak Analytics (CFA).







December 20, 2021

CDC releases data estimating that the Omicron variant is around 1.6 times more transmissible than the Delta variant.



December 22, 2021

FDA authorizes Pfizer's anti-viral pill Paxlovid to treat COVID-19 under an EUA for adults and children ages 12 years and older who weigh at least 88 pounds who test positive and are at high risk for progression to severe disease. It is the first treatment for COVID-19 that is taken orally and can be used at home.



December 23, 2021

FDA authorizes Merck's anti-viral pill Molnupiravir to treat COVID-19 under an EUA for all adults and children ages 18 years and older who test positive and are at high risk for progression to severe disease. It is the second treatment for COVID-19 that is taken orally and can be used at home but, despite supply concerns, Paxlovid remains the preferred oral anti-viral treatment for COVID-19.

CDC updates its recommendations for the isolation and quarantine periods for healthcare workers, decreasing their isolation time after infection with COVID-19. Asymptomatic healthcare workers can now return to work after 7 days with a negative test and healthcare workers who have received all recommended COVID-19 vaccines doses, including a booster, do not need to quarantine after a high-risk exposure.



December 27, 2021

CDC shortens the recommended isolation period for people with COVID-19 to 5 days, followed by 5 days of wearing a mask around others if they are asymptomatic or if their symptoms are resolving (resolving is defined as without a fever for 24 hours).

CDC updates the recommended quarantine period for people exposed to someone with COVID-19 to wear a mask around others for 10 days and get tested on day 5 if you have been boosted or vaccinated within the last 6 months. If the exposed individual is unvaccinated, CDC now recommends a quarantine period of 5 days, followed by strict mask use for an additional 5 days.

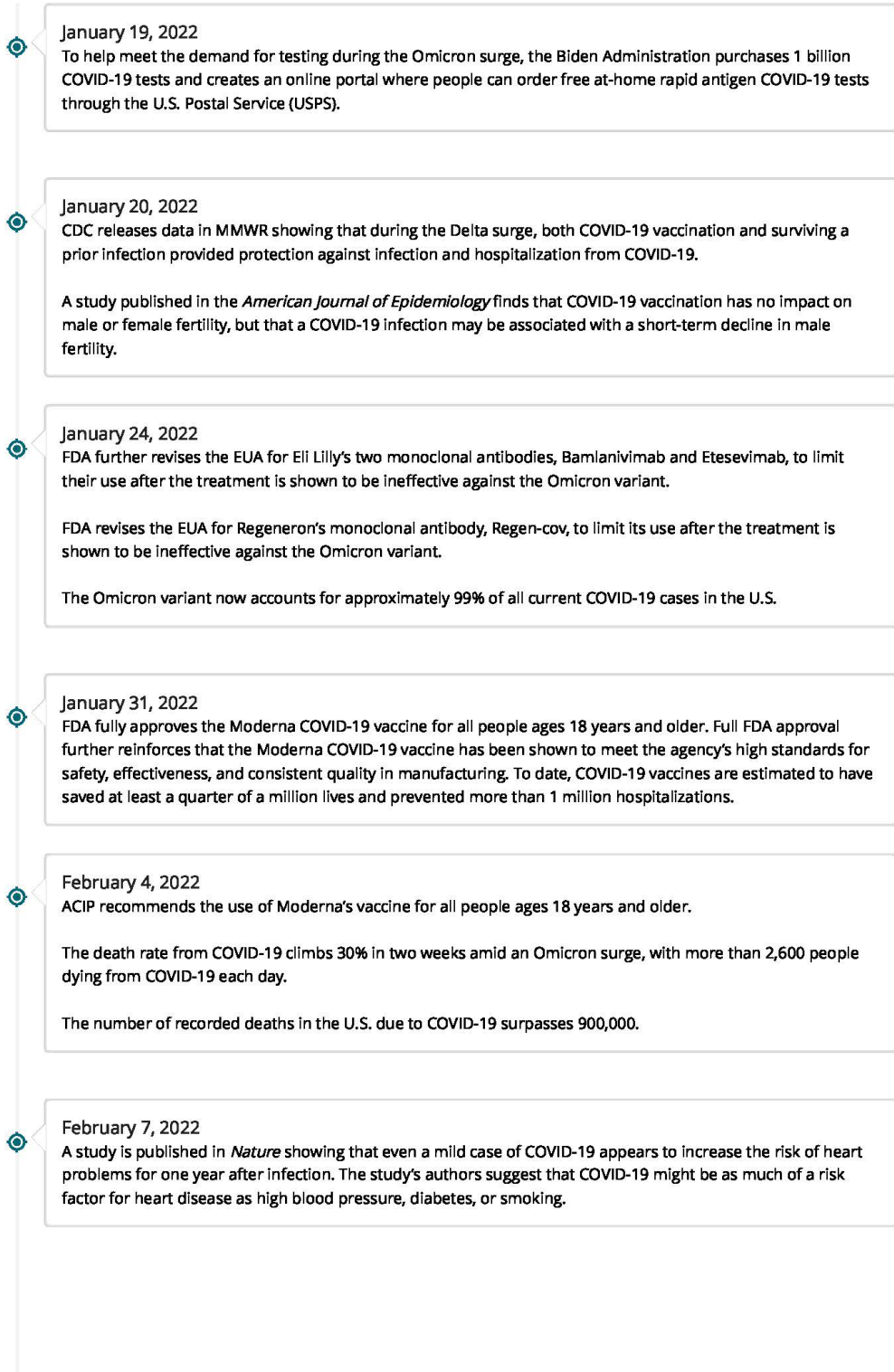
Early 2022



January 1, 2022

As Delta and Omicron spread, New York state records its highest number of new COVID-19 cases in a single day since the pandemic began – with 114,082 new confirmed cases.

- 
- January 3, 2022**
The U.S. reports nearly 1 million new COVID-19 infections– the highest daily total of any country in the world. The number of hospitalized COVID-19 patients has risen nearly 50% in just one week.
- FDA amends the emergency use authorization (EUA) for the Pfizer-BioNTech COVID-19 vaccine to allow a single booster dose for all individuals ages 12–15 years; shortens the time-period between the completion of primary vaccination series of the Pfizer-BioNTech COVID-19 vaccine and a booster dose to at least five months; and allows for a third primary series dose for certain immunocompromised children ages 5–11 years.
- January 4, 2022**
ACIP shortens the recommended time between the primary vaccination series and a booster shot for the Pfizer-BioNTech COVID-19 vaccine from 6 months to 5 months.
- ACIP recommends that moderately or severely immunocompromised children ages 5–11 years receive an additional primary dose of the Pfizer-BioNTech COVID-19 vaccine 28 days after their second shot.
- January 5, 2022**
ACIP recommends that all adolescents ages 12–17 years receive a booster shot 5 months after their initial Pfizer-BioNTech vaccination series.
- January 7, 2022**
FDA amends the EUA for the Moderna COVID-19 vaccine to shorten the time between the primary series of the vaccine and a booster dose from at least 5 months to 6 months for individuals ages 18 years and older. The same day, CDC endorses the FDA's recommendation.
- January 11, 2022**
The Biden Administration purchases 600,000 doses of GSK and Vir Biotechnology's antibody treatment Sotrovimab, after the drug was found to be effective against both the Delta and Omicron variants.
- January 14, 2022**
CDC updates guidelines on masks to emphasize fit, comfort, and consistent wear.
- In one month, the daily average of new COVID-19 infections reported in the U.S. spikes from 119,215 to 805,062.
- January 17, 2022**
The American Civil Liberties Union (ACLU) sues an Arkansas jail on behalf of detainees who reported COVID-19 like symptoms and say they were unknowingly given ivermectin and hydroxychloroquine, two drugs that CDC does not recommend for the treatment of COVID-19.





February 11, 2022

CDC releases data showing that COVID-19 vaccine boosters remain safe and were highly effective against severe disease during the Omicron and Delta variant surges for everyone ages 5 years and older.

CDC releases data in *MMWR* showing that the Omicron variant rose from 1% of all infections in the U.S. to 99% of all infections in just 6 weeks (compared to 18 weeks for Delta).



February 15, 2022

CDC releases data in *MMWR* showing that maternal COVID-19 vaccination during pregnancy with an mRNA vaccine, Pfizer-BioNTech or Moderna, reduces the risk of COVID-19 hospitalization in infants (babies under 6 months) by around 60%.



February 18, 2022

CDC releases two reports in *MMWR* on pediatric emergency department visits during the COVID-19 pandemic and recommends increased awareness of the health concerns among children and adolescents that could arise due to delayed medical care and heightened emotional distress, especially for adolescent girls (ages 12–17 years).

The Wisconsin Department of Health Services confirms that a child in Wisconsin has died from multisystem inflammatory syndrome in children (MIS-C), a rare but serious condition associated with COVID-19 infection in children.



March 2, 2022

WHO releases data showing that the COVID-19 pandemic triggered a 25% increase in anxiety and depression worldwide, with young people and women at the highest risk.



March 3, 2022

CDC updates the "COVID-19 Community Level," showing that more than 90% of the U.S. population is in a location with either low or medium COVID-19 community transmission level.

The U.S. has now donated more than 480 million COVID-19 vaccine doses to 110 countries.



March 4, 2022

While access to COVID-19 vaccines has expanded, the gap in COVID-19 vaccination rates between urban and rural areas in the U.S. has more than doubled since April 2021.



March 5, 2022

More than 10 billion people have received a COVID-19 vaccine, with WHO reporting that 10,704,043,684 COVID-19 vaccine doses have been administered worldwide. About 56% of the world is now fully vaccinated, but many regions still lack access, especially on the African continent where less than 20% of the total population is currently vaccinated.



March 8, 2022

Hawaii becomes the last state to announce an end to its universal indoor mask mandate, scheduled for March 26, 2022.



March 10, 2022

On CDC's recommendation, the Transportation Security Administration (TSA) extends the mask requirement for all public transportation and transportation hubs through April 18, 2022.

The number of recorded deaths due to COVID-19 surpasses 6 million worldwide, with WHO reporting 6,019,085 confirmed deaths. The true number is likely much higher.

The number of recorded COVID-19 cases surpasses 450 million worldwide, with WHO reporting 450,229,635 confirmed infections. The true number is likely much higher.



March 11, 2022

Two-year anniversary of WHO declaring COVID-19 a global pandemic.

CDC updates the "COVID-19 Community Level," showing that more than 98% of the U.S. population is in a location with either a low or medium COVID-19 community transmission levels.

In the U.S., 92% of all children ages 5–11 years now live within 5 miles of a vaccine provider.

CDC releases data in *MMWR* showing that school districts in Arkansas with universal mask requirements had a 23% lower incidence of COVID-19 among staff and students compared to districts without mask requirements during August – October 2021.



March 12, 2022

CDC estimates that 23% of all current COVID-19 infections in the U.S. are caused by the Omicron BA.2 subvariant, with initial data suggesting that BA.2 appears to be more transmissible than the Omicron BA.1 variant.



March 14, 2022

Several regions in China face new lockdowns under the "COVID Zero" policy when cases of the Omicron variant are found. Tens of millions of people are required to stay inside their homes, key technology manufacturers like Foxconn and Unimicron close factories, and the production and distribution of goods is disrupted throughout the world.



March 15, 2022

CDC releases data in *MMWR* showing that the COVID-19 hospitalization rate among infants and children ages 4 years and younger was 5 times higher during the peak of the Omicron variant surge when compared to the Delta variant— 63% of those children hospitalized had no underlying medical conditions.

After officially recording more than 43 million COVID-19 cases, India begins vaccinating adolescents ages 12–14 years with the COVID-19 vaccine Corbevax and schools reopen after two years of closures.

CDC outlines its goals for the third year of a global COVID-19 response: to increase vaccination levels around the world, reduce spread of COVID-19 and its impact, expand scientific knowledge of the SARS-CoV-2 virus, and strengthen public health leadership while improving long-term health security worldwide.



March 16, 2022

At the World Trade Organization (WTO) meeting the U.S., the European Union, India, and South Africa forge a preliminary agreement on a COVID-19 vaccine intellectual property (IP) waiver, hoping to expand access to vaccines around the world.



March 18, 2022

CDC releases data in two *MMWRs* showing that adults who received 3 doses of a COVID-19 mRNA vaccine were 94% less likely to be put on a ventilator or die from COVID-19 during the Omicron surge compared to non-vaccinated adults in the U.S. and that Black adults are currently 4 times more likely to be hospitalized than White adults.



March 24, 2022

Data from the Census Bureau shows that deaths in the U.S. between 2019 – 2020 increased by approximately 19% after the onset of the COVID-19 pandemic in March 2020. That is the largest spike in mortality in the U.S. in 100 years.



March 26, 2022

CDC estimates that about 55% of all current COVID-19 cases in the U.S. are caused by the Omicron BA.2 subvariant.



March 29, 2022

CDC and FDA both recommend a second mRNA COVID-19 vaccine booster for immunocompromised individuals and all adults ages 50 and older 4 months after their last booster dose.

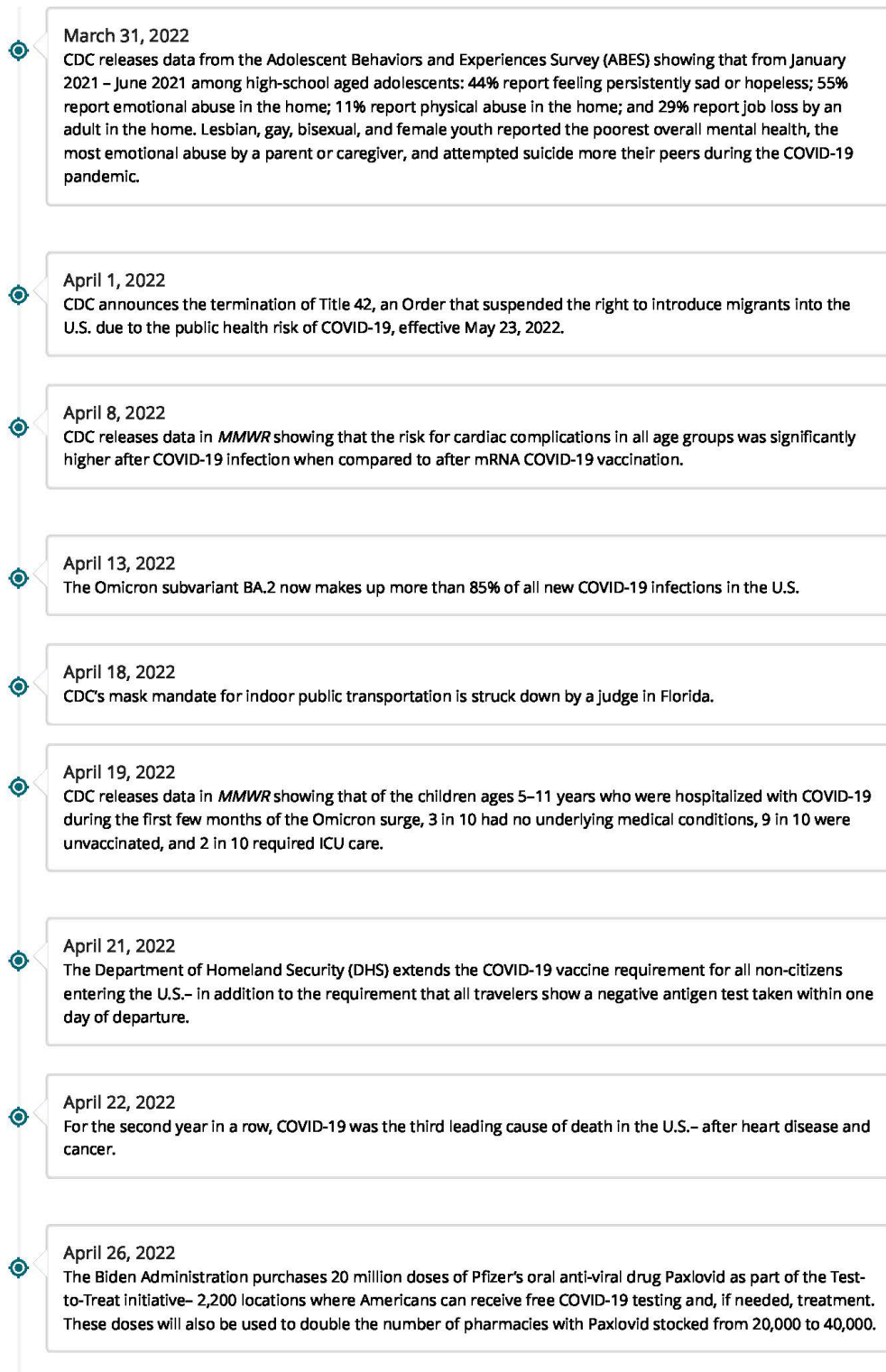
CDC recommends that all adults who received a primary vaccine series and booster dose of Johnson & Johnson's COVID-19 vaccine receive a second booster dose with an mRNA COVID-19 vaccine.

CDC recommends that all adults who received a primary vaccine series and booster dose of Johnson & Johnson's COVID-19 vaccine receive a second booster dose with an mRNA COVID-19 vaccine.



March 30, 2022

The number of recorded deaths due to COVID-19 reaches 976,229, with more than 79,853,683 total reported cases of the virus in the U.S.



- April 27, 2022**
It is estimated that during 2000–2018, measles vaccines prevented 23.2 million deaths, but delays in routine vaccinations caused by the COVID-19 pandemic and crises in Ukraine, Ethiopia, Somalia, and Afghanistan have led to a nearly 80% worldwide rise in measles cases in 2022.
- April 29, 2022**
Data from CDC's National Commercial Laboratory Seroprevalence Study estimates that, as of February 2022, approximately 75% of children and adolescents showed infection-induced antibodies to SARS-CoV-2 (evidence of a previous infection with SARS-CoV-2 – also called seroprevalence) and that, since December 2021, approximately one third have become newly seropositive.
- April 30, 2022**
The current proportion of the U.S. population fully vaccinated against COVID-19 broken down by age group is: 5–11, 28%; 12–17, 59%; 18–49, 69%; 50–64, 80%; and ≥65 years, 90%.

Mid 2022

- May 3, 2022**
CDC recommends that everyone continue to wear a mask while in indoor transportation hubs to prevent the spread of COVID-19 – but this is no longer legally enforceable.
- May 5, 2022**
WHO estimates that there have been approximately 15 million direct or indirect deaths (also called “excess mortality”) globally from January 2020 – December 2021 that were caused by the COVID-19 pandemic. South-East Asia, Europe, and the Americas accounted for 84% of the excess deaths.
- May 10, 2022**
During the COVID-19 pandemic, there has been a 35% increase in the firearm homicide rate, resulting in the highest firearm homicide rate in more than 25 years. Firearm homicide rates are the highest among males, adolescents, young adults, and non-Hispanic Black and non-Hispanic American Indian and Alaska Native people. Rates of firearm suicide remained high, increasing most notably among American Indian and Alaska Native males ages 10–44, and are highest in rural areas.
- May 12, 2022**
The number of recorded deaths due to COVID-19 in the U.S. reaches 1 million (1,000,000).

Initial research suggests that between 4% and 36% of all people infected with COVID-19 will experience symptoms lasting at least six-months, potentially leading to between 5 and 25 million people in the U.S. experiencing a long-term disability (approximately 200 million people worldwide). Experts and disability advocates worry that the long-term consequences of this virus are underappreciated.

