

ETHICAL ISSUES

- When ethical lapses occur, they rarely happen in situations when what is right versus what is wrong is clear. They more typically occur when what is morally right is less clear.

SEPTEMBER 11, 2001

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- The iconic twin towers of downtown Manhattan's World Trade Center were a triumph of human imagination and will. Completed in 1973, they stood at 110 stories each, accommodating 50,000 workers and 200,000 daily visitors in 10 million square feet of space.



DAY OF INFAMY

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- The September 11 attacks were a series of four coordinated terrorist attacks by the Islamic terrorist group Al-Qaeda against the United States on Tuesday morning September 11, 2001.

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- 9/11 was the deadliest incident in the U.S. in time of peace, and also the deadliest foreign attack on American soil since Pearl Harbor.
 - 9/11 was also the single deadliest incident for firefighters and law enforcement in the history of the United States, with 343 firefighters and 72 law enforcement officers killed.

MOTIVES FOR SEPT 11 ATTACKS – ACCORDING TO OSAMA BIN LADEN’S “LETTER TO AMERICA”

- US support of Israel
- Support for attacks against Muslims in Somalia
- Support of Philippines against Muslims in Lebanon
- Support of Russian atrocities against Muslims in Chechnya
- Pro American government in Middle East
- Presence of US troops in Saudi Arabia
- Sanctions against Iraq

TIMELINE – SEPT 11, 2001

- 8 a.m. AA Flight 11 with 92 people on board takes off from Logan to LA
- 8:14 a.m. United Flight 175 with 65 people on board takes off from Logan to LA
- 8:21 a.m. AA Flight 77 with 64 people on board takes off from Dallas to LA
- 8:40 a.m. United Flight 93 with 44 people on board takes off from New York for S.F.
- 8:46 a.m. AA Flight 11- crashes into North Tower WTC
- 9:03 a.m. United Flight 175 crashes into the South Tower WTC
- 9:40 a.m. AA Flight 77 crashes into Pentagon
- 9:59 a.m. South Tower of WTC Collapsed
- 10:07 a.m. United Flight 93 crashes in Shanksville, PA
- 10:28 a.m. North Tower WTC collapses
- 10:04 a.m. LA and SF international airports closed and evacuated

2 HOURS THAT CHANGED THE WORLD

FIRST IMPACT

American Flight 11

WHO WAS INSIDE

The Port Authority of New York and New Jersey leased six floors of the north tower. Cantor Fitzgerald Securities, on floors 101-105, cannot account for 1,000 of its employees

Tower 1 supported 10 television antennas and numerous other services. Ten television stations, including all the major networks, broadcast from the mast

SECOND IMPACT

United Flight 175

WHO WAS INSIDE

Morgan Stanley Dean Witter was the single largest tenant in the south tower, leasing 21 floors. Both buildings hold 50,000 people

1 World Trade Center

Second to collapse

Completed: 1970
Height: 110 floors
Floor Sizes: (9-105) 45,000-50,000 sq. ft.
Elevators: 97 passenger, 6 freight

2 World Trade Center

First to collapse

Completed: 1972
Height: 110 floors
Floor Sizes: (2-109) 45,000-50,000 sq. ft.
Elevators: 97 passenger, 6 freight

7 World Trade Center

Third to collapse

PLAZA

3
Marriott Hotel

All lower buildings around the towers virtually destroyed by falling debris

The sheer scope and scale of the incident in a concentrated geographic area, its nature as a terrorist attack, the environmental destruction, the physical devastation, the financial effects globally, and locally, the involvement of multiple agencies, and the international scope of its ramifications was overwhelming.

CASUALTIES

- 2996 deaths – mostly males
- 6000 injured
- US citizens (including 2135 civilians)
- 125 at the Pentagon
- 343 firefighters
- 72 law enforcement officers
- 55 military personnel at the Pentagon
- 19 terrorists
- 200 jumped or fell
- 90 countries lost citizens
- 3,000 children lost their parents
- 265 on the four planes
- 2606 in the WTC and surrounding areas
- Only 20 people were pulled from the rubble of the WTC after Sept 11; some of them 27 hrs later.
- Number of body parts collected – 19,500
- Number of bodies intact – 291
- Anthropologists found 72 human remains at the Fresh Kills landfill.

As of now: 1,640 victims identified; 1,113 not identified yet.

CONSEQUENCES OF ATTACK

- New York Stock Exchange closed until Sept 17.
- Bridges and tunnels around city closed to non-emergency traffic in both directions.
- Trains shutdown
- Entire airspace of US and Canada closed except for military, police, and medical.
- **All non military flights needed schedule approval from the President and FAA.**

ECONOMIC LOSSES

- 110 Billion in insurance losses.
- U.S. dollar fell against the Euro, Pound, and Yen.
- Travel agencies bookings declined – refunding regained – losses.
- Insurance companies reluctant to continue to provide coverage for future terrorists attacks.
- Tourism in N.Y. plummeted.
- Hotel occupancy fell dramatically.
- 2.8 billion in lost wages over the 3 months following the attacks.
- 18,000 small businesses were destroyed or displaced.
- **There was a 10 billion dollar loss in property damages and loss of infrastructure, and 3 trillion in total damages.**

WHAT SAVED NEW YORK

- Evacuation throughout neighboring buildings
- Firefighters heroism
- Doctors, EMT's and Med Staff
- Supplies from neighboring hospitals
- Police heroism
- Coast Guard maritime industry, Individual boat owners helped evacuate by water from lower Manhattan – ½ million
- Amateur Radio – rescue and clean up
- Search and rescue efforts
- 400 working dogs

WHAT SAVED NEW YORK (CONT.)

- Military Support – Nat. Guard, Civil air patrol, Marines, Navy
 - Structural Engineers Associations of NY divided into 4 zones to revise buildings safety
 - Bucket Bridges
 - Garage Automobiles (2,000) – 5 gallons of gasoline each
 - Diesel truck tank – seven stories below
 - US Customs Service – weapons storage on 3rd floor
 - Air Conditioners and Freon Gas
 - 200 Rat Traps
 - MAYOR GUILIANIS' INVOLVEMENT
- } The known but not mentioned



Flag in rubble – Morale Boost

”I can hear you! I can hear you! The rest of the world hears you! And the people -- and the people who knocked these buildings down will hear all of us soon!”

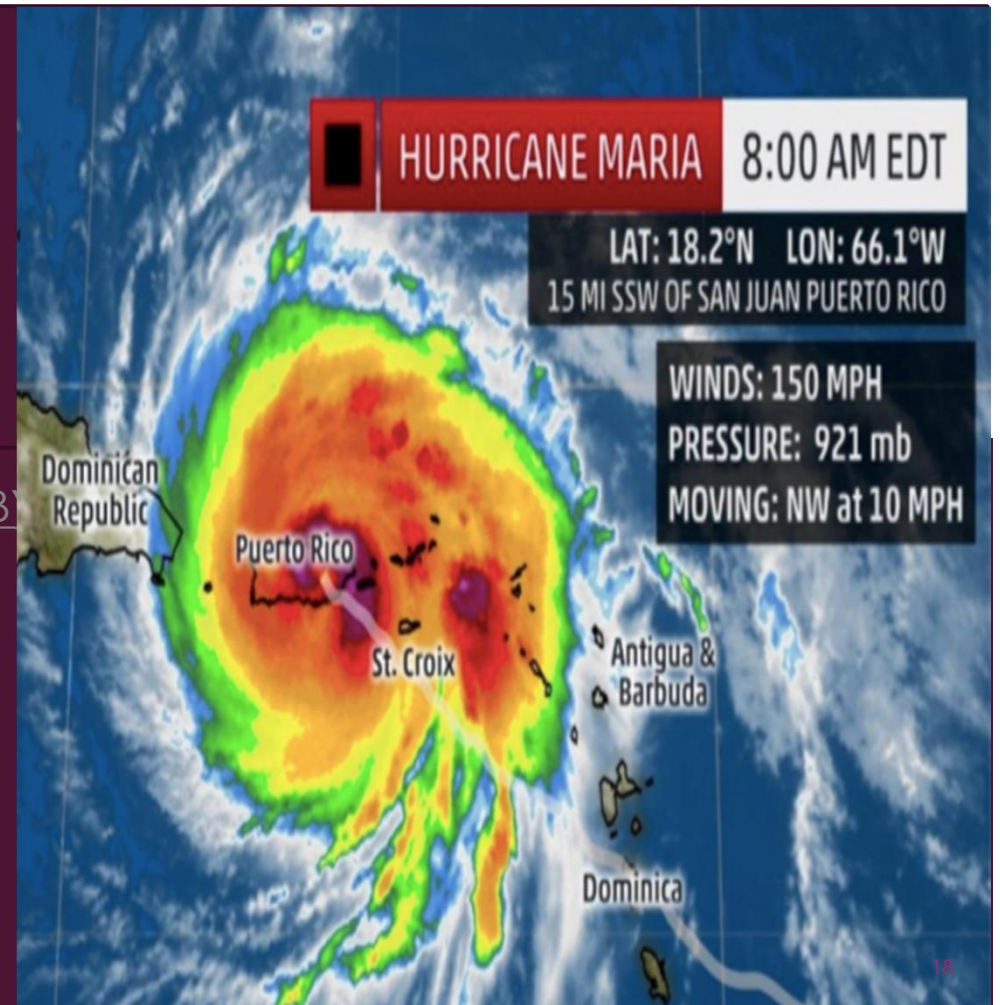


President Bush Visit

HURRICANE MARIA

SEPTEMBER 20TH, 2018

<https://www.youtube.com/watch?v=oBoZB>



SEPTEMBER 6, 2017 – IRMA

SEPTEMBER 20, 2017 – MARIA

- Regarded as the worst natural disaster on record in Dominica and Puerto Rico.
- The tenth most intense Atlantic hurricane on record and the most intense tropical cyclone worldwide.
- It is also the third costliest Atlantic hurricane: 94 billion in damages.

LOSSES: 94 BILLIONS

- Property losses
- Hundreds of deaths
- Virtual destruction of the electrical power grid
- Elimination of thousands of housing structures
- Collapse of most telephone lines and cell networks
- 15,600 Businesses
- 97,000 jobs

IMMEDIATE FEDERAL RESPONSE

- **September 28, 2017**
 - The first of 17,000 U.S. soldiers arrived and would stay until mid-November.
 - President Trump's Administration temporarily waived the 1920 Jones Act in Puerto Rico - which requires that all merchandise be shipped to the Island on U.S. owned and operated vessels, doubling the price of imported goods on the Island. The Act was reinstated ten days later.

IMMEDIATE FEDERAL RESPONSE

- **October 3, 2017**
 - President Trump visited Puerto Rico to survey the damages caused by Maria.
- **October 4, 2017**
 - USNS Comfort Arrives in Puerto Rico
 - The hospital had 250 hospital beds.
 - Over its 53 day deployment only 290 total patients were admitted (6 per day) and 1,625 people were treated as outpatients.

GEORGE WASHINGTON REPORT

Ascertainment of the estimated excess mortality from Maria, in Puerto Rico

- Total excess mortality post Hurricane Maria estimated to be 2,975
- (95% CI: 2,658-3,290)
- From September 2017-February 2018
 - All social stratum and age group affected.
 - Impact differed by age and socioeconomic status.
 - Risk of death was 45% higher for populations living in low socioeconomic development municipalities, and for older males (65+).

CONCLUSION

- Inadequate preparedness and personnel training for crisis and emergency risk communication, combined with numerous barriers to accurate, timely information and factors that increased rumor generation, ultimately decreased the perceived transparency and credibility of the Government of Puerto Rico.

TIMELINE: DAYS AFTER MARIA

- Pandemonium.
- Airports operated at fraction of its normal capacity.
- Leaky ceilings throughout buildings.
- No air conditioning or escalators working.
- Half mile long lines for gas and diesel fuel at gas stations.
- Mayhem on roads and highways dodging fallen trees.
- Absence of street lights and traffic lights.
- Absence of internet and telephone signals. Long lines along roads looking for any signals to call families in mainland.





TIMELINE: DAYS AFTER MARIA

- Containers full of goods sat undistributed at ports for more than a week after hurricane
- Diesel/Fuel in short supply and hard to distribute
- Truck drivers and trucks were scarce
- Roads were unpassable
- The real problem was in the “supply chain”

**NO PHONES, NO DRIVERS, NO DIESEL, NO TRUCKS, NO
ROADS, NO DELIVERIES**

19,000 PALLETS OF BOTTLED WATER FOUND IN PUERTO RICO A YEAR AFTER MARIA



WHAT MADE THIS SITUATION MORE DIFFICULT?

- Scale of damage was an obstacle.
- The biggest challenge was the sheer of damage caused by the hurricanes and the overtaxed Puerto Rican Government making it difficult to prioritize.
- Power restoration was problematic.
- Inability to communicate with affected communities. Satellite phones useless most of the time.
- The lack of neighboring states made it difficult to deploy help quickly and evacuate those in need.





NINE MONTHS AFTER MARIA

- **Infrastructure Recovery**
- **99.38%** of power restored – less than 9,000 meters to power
- **3** micro grids
- **98%** PRASA water resorted
- **31 of 45** bridges severely impacted or destroyed already replaced or repaired
- All communications restored
- All 68 hospitals working
- All schools open
- Private sector open for business
- All airports operational
- All ports operational
- 7.5 millions cubic yards of debris removed

EDUCATION

- Hurricane Maria disrupted the lives of some 350,000 public school students, it took nearly 5 weeks before the first public schools began to reopen-most of them without power or air conditioned.
- Some schools were converted to community centers and/or shelters forcing students to relocate. Today up to 6% of Puerto Rican students have left the Island since Maria.

HEALTH CRISIS AFTER MARIA

- As of December 2017 more than 1/3 of the 68 hospitals were still without electricity and some CDT's were operating without regular power and clean water.
- Interruption of all elective surgery, procedures and care, (cancer surgery, chemo)
- Patient attrition in the thousands.
- Severe shortage of specialists and health care professionals.
- Increased incidence of cardiac arrests and intracranial hemorrhage.
- Higher rates of waterborne diseases.
- Mushrooming suicides.
- Interruption of pharmacy services
- Medical equipment and staff shortages.
- Skimpy data collecting regarding incidence of disease, injuries and deaths.
- Dermatological conditions and pulmonary conditions increase.
- Insurance companies delayed or stopped payments.
- Lack of prescription medicines, insulin, water and food.
- Interruption and disruption of dialysis treatments
- Need of more Medicaid funds for island poor.
- Lack of electricity caused many vaccines to be wasted – Fear of influenza epidemic.
- Lack of internet

MIGRATION POST MARIA

A study by the Center for Puerto Rican Studies of CUNY, estimated that over 135,000 people migrated to the mainland after the hurricane.

Estimates by state:

- Florida: 56,477 (42%)
- Massachusetts: 15,208 (11%)
- Connecticut: 13,292 (10%)
- New York: 11,217 (8%)
- Pennsylvania: 9,963 (7%)
- New Jersey: 5,027 (4%)

Post-Maria 2017 School Enrollment Estimates and Predicted Population Estimates

	(A) School-Age Children Migrants (2013-2016)	(B) Puerto Rican Migrants (2013-2016)	(B/A) Ratio of School-Age Children to Total Migrant Population	Puerto Rican School Enrollment Data (K-12)	Migration Estimates (2018)	Distribution (2018)
National	13,050	64,933	4.98	24,406	135,592	100%
Selected States	10,043	49,864	4.97	21,640	111,185	82%
FL	4,955	24,221	4.89	11,554	56,477	42%
MA	546	3,251	5.95	2,556	15,208	11%
CT	359	2,614	7.28	1,827	13,292	10%
NY	756	3,822	5.06	2,218	11,217	8%
PA	1,652	6,333	3.83	2,599	9,963	7%
NJ	548	3,109	5.67	886	5,027	4%
Other States*	3,007	15,069	5.01	2,766	24,406	18%

Source: American Community Survey, 2013-2016 (1-year estimates) and Selected Department of Education.

FACTORS THAT PROMOTE MIGRATION

- **Tax on sales and use (IVU)** – at 11.5% is the highest in the nation; impoverished the working class
- **End of section 963** – which provided tax incentives to companies to settle on the island. Its ending caused the closure of many companies.
- **Poor Healthcare services** – due to gradual loss of doctors, specialists and nurses.
- **Problems with the education system** – closing of 266 schools.
- **Loss of Bank Assets and Retirement Benefits** for some.

CHANGES AFTER HURRICANE MARIA

- Law 22 – 2012 Incentivizes people to come to P.R. and invest allowing for Income Tax exemption – finalizes Dec/2035.
- Act #14 of 2017 offers an attractive tax incentive proposal for medical specialists to stay or move to Puerto Rico. 4% fixed income tax generated from medical business services. Benefits to be enjoyed for 15 years and renewed for additional 15. MD's, podiatrists, and specialty odontologists working on full-time basis are eligible.
- New legislative proposal being introduced to Amend Act 14 of 2017 that would include not only specialists, but all practicing physicians.



WHAT HAVE WE LEARNED FROM THIS DISASTER AND HOW SHOULD WE PLAN FOR THE FUTURE?

MOST IMPORTANT ASPECT OF PREPAREDNESS

We need a culture of preparedness with all residents of the Island, not only for hurricanes but for all types of emergencies. We need to start thinking and acting LOCAL.

LESSONS LEARNED: COMMUNICATION AND ORGANIZATION ARE KEY

- **Remember: By failing to prepare we might be preparing to fail.**
- Therefore:
 - **Someone in authority is to make all decisions.**
 - Have a **plan in place** a contingency one as well, and practice
 - Establish emergency center with knowledgeable professionals, including a person of each government agency with experience in disaster management to always be available.

WHAT TO DO AFTER A DISASTER?

- Meet necessities – try not to duplicate services.
- Government should not do what they are not able to do. Seek outside help – especially when local resources are exhausted.
- **Keep it local.** People know the areas, the damages, and are trusted by their peers.
- Be very clear what you can communicate to the public. Keep opinions to yourself until you are able to prove them with facts.
- **Only one communicator in charge of the Press.**

WHAT DO WE NEED NOW – THE BIG PICTURE

- Collaborative efforts between the Federal Government, Puerto Rican Government, and Private Sector.
- Improvement of infrastructure, from houses to roads to bridges.
- **Identification of required and needed resources, how and by whom they will be requested and provided, and who will then be in charge of their distribution.**
- **Transparency**

“Natural disasters are terrifying - that loss of control, this feeling that something is just going to randomly end your life for absolutely no reason is terrifying. But, what scares me is the human reaction to it and how people behave when the rules of civility and society are obliterated.”

-Eli Roth

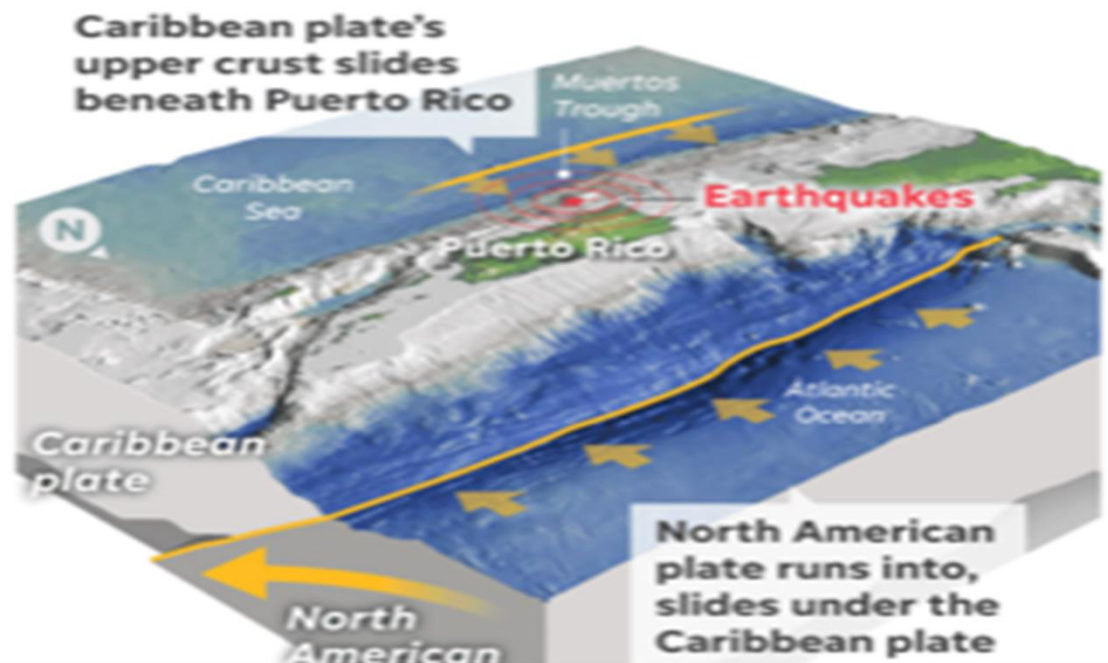


CHRONOLOGY OF PUERTO RICO EARTHQUAKES

PUERTO RICO EARTHQUAKES

Why Puerto Rico is experiencing so many earthquakes

Tectonics in Puerto Rico are dominated by the convergence of the North American and Caribbean tectonic plates — with the island being squeezed between.



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- Puerto Rico lies in a tectonically active region, where earthquakes have occurred for centuries.
 - It had been 102 years since the island had an earthquake. The last occurred in 1918 at 7.3 magnitude. It killed 116 people and hit the northwest.
 - According to the U.S. Geological Survey, there have been more than 1,000 earthquakes and aftershocks recorded in Puerto Rico since December/ 28/ 19 though many were weak and could not be felt. More than 500 however, have been of magnitude 2 or higher.

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- The most destructive quake in a century, a magnitude 6.4 jolted residents awake in the predawn hours on January 7. Only a day before, a magnitude 5.8 quake also struck the same region.
 - Several strong aftershocks magnitude 3 or higher followed the initial quake resulting in collapsed buildings, one death and nine injured people.
 - The shocks also caused significant destruction and damaged homes, churches and schools.
 - They also caused widespread power outages, in some regions triggered landslides, and toppled the natural rock arch Punta Ventana and left 300,000 households without running water.

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- Following the earthquakes, the situation in Puerto Rico remained dire, with more than 2,000 people in shelters and 93% of the island without electric power.
 - People throughout the Southern part of Puerto Rico continued sleeping outside because they did not feel safe in spite of houses being checked for safety.



- On January 7, 2020, the governor activated the Puerto Rican National Guard.
- About 1,300 members of P.R. Army and National Guard were activated to help build tents to shelter hundreds of residents who lost their homes following the 6.4 magnitude earthquake.
- They provided shelters for as many as 1,500 displaced residents. Base camps operated in Southern municipalities, : Yauco, Guánica, Peñuelas, Guayanilla and Ponce.



- National Guard helped deliver more than 91,000 meals and 80,000 bottles of water and added showers, laundry facilities, latrines, water purification systems and generators. Security was being provided by the National Guard, and they were administered by P.R. Dept of Housing.



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- Economic damage to Puerto Rico caused by the 6.4 magnitude earthquake was estimated at 110 millions dollars.
 - After the two largest earthquakes in December and January another earthquake, magnitude 5.4, hit Puerto Rico near Ponce. It damaged Museo de la Masacre de Ponce and Casa Paoli. It also left 50 families in need of new housing. After the earthquake, several aftershocks followed, including a 4.9 magnitude tremor.

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- According to the U.S. Geological Survey, aftershocks in Puerto Rico are expected to decline, but shaking will still be felt on a weekly basis for at least 1.5 years, up to a decade.
 - The annual chance of having one or more magnitude 5 aftershocks or greater will be 25% for up to a decade or more.
 - Annual chance of magnitude 6 or greater aftershocks will be 25% for 3 months to 3 years.
 - Within the next year there is a 5 to 10% chance of a magnitude 7 or greater earthquake could happen.

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- Recently a 4.8 magnitude earthquake shook southern Puerto Rico in August 2020.
 - This earthquake occurred amid a 2-month lockdown and just hours after the announcement of the biggest spike in COVID 19 cases in Puerto Rico.
 - The National Guard transitioned from supporting victims of earthquakes in Jan 7 to responding to the threat of Coronavirus.
 - They helped state and federal agencies mitigate and control the COVID 19 virus by conducting basic health screenings of passengers arriving at the International airport from NY, NJ, CONN and Florida.

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- MARCH 17, 2020 National Guard started monitoring temperatures of travelers from airports (commercial, private and cargo flights) arriving from NY, NJ and Florida.
 - The Muñoz Marin airport, obtained infrared cameras that could detect temperatures above 100.3 F. Images of those detected with higher temperatures were sent to the National Guardsmen for further questioning and evaluation.
 - As of April 3, National Guard had tested all arriving passengers from the 4 states and documented 182 positive test of coronavirus from arriving passengers. They were placed in quarantine, and around 7 of them were hospitalized in local hospitals.

**LESSONS LEARNED
FROM
EARTHQUAKES IN
PUERTO RICO**



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- There were inadequate emergency management protocols.
 - The government of Puerto Rico had not completed its earthquake plan and was not prepared for an earthquake in the South West area of Puerto Rico.
 - There was an absence of protocols to coordinate government and private sector resources, to provide a quick and effective emergency response.

RECOMMENDATIONS



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- Federal legislation must authorize the government of Puerto Rico to use the federal funding originally made available in response to other emergencies like Hurricane Maria to deal with the impact caused by the earthquakes.
 - Review and update tsunami warning protocols.
 - Update Seismic and Tsunamic Hazard Maps, including study and characterization of faults on and offshore of Puerto Rico

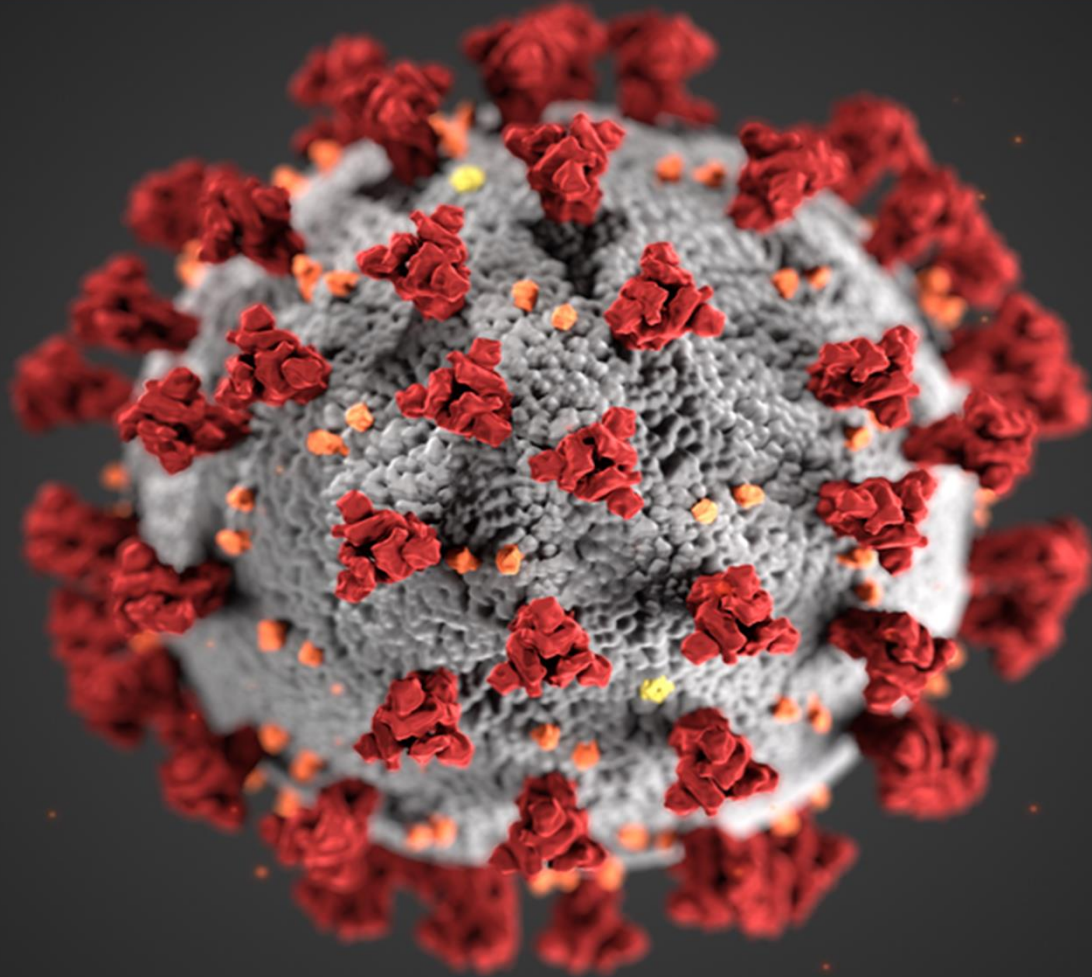
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- Document earthquake impact to housing and structures in SW Puerto Rico.
 - Establish and Execute actions to retrofit and strengthen homes, public and private structures.
 - Immediate resources need to be identified for the construction and reconstruction of earthquake resilient homes.
 - Must bring an end to informal, non-engineered construction in Puerto Rico.

**WHAT HAS HAPPENED
IN PUERTO RICO SINCE
THE EARTHQUAKES?**



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- Puerto Rico is recovering, but earthquakes keep coming.
 - 5,000 persons slept in shelters following the quakes and many slept outside of their homes out of fear.
 - President authorized FEMA to coordinate 5 million disaster relief efforts.
 - Damage to main power plants caused island-wide power outages.

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- The siren systems for tsunamis have been repaired.
 - Installation of additional seismic stations for a quicker and more accurate detection of earthquakes by the P.R. Seismic Network, The U.S. GS and Pacific Tsunami Warning Center, has occurred.
 - Tsunami protocols have been updated to take Covid19 into consideration.
 - Earthquake and tsunami mitigation preparedness, response and recovery plans are currently under review.



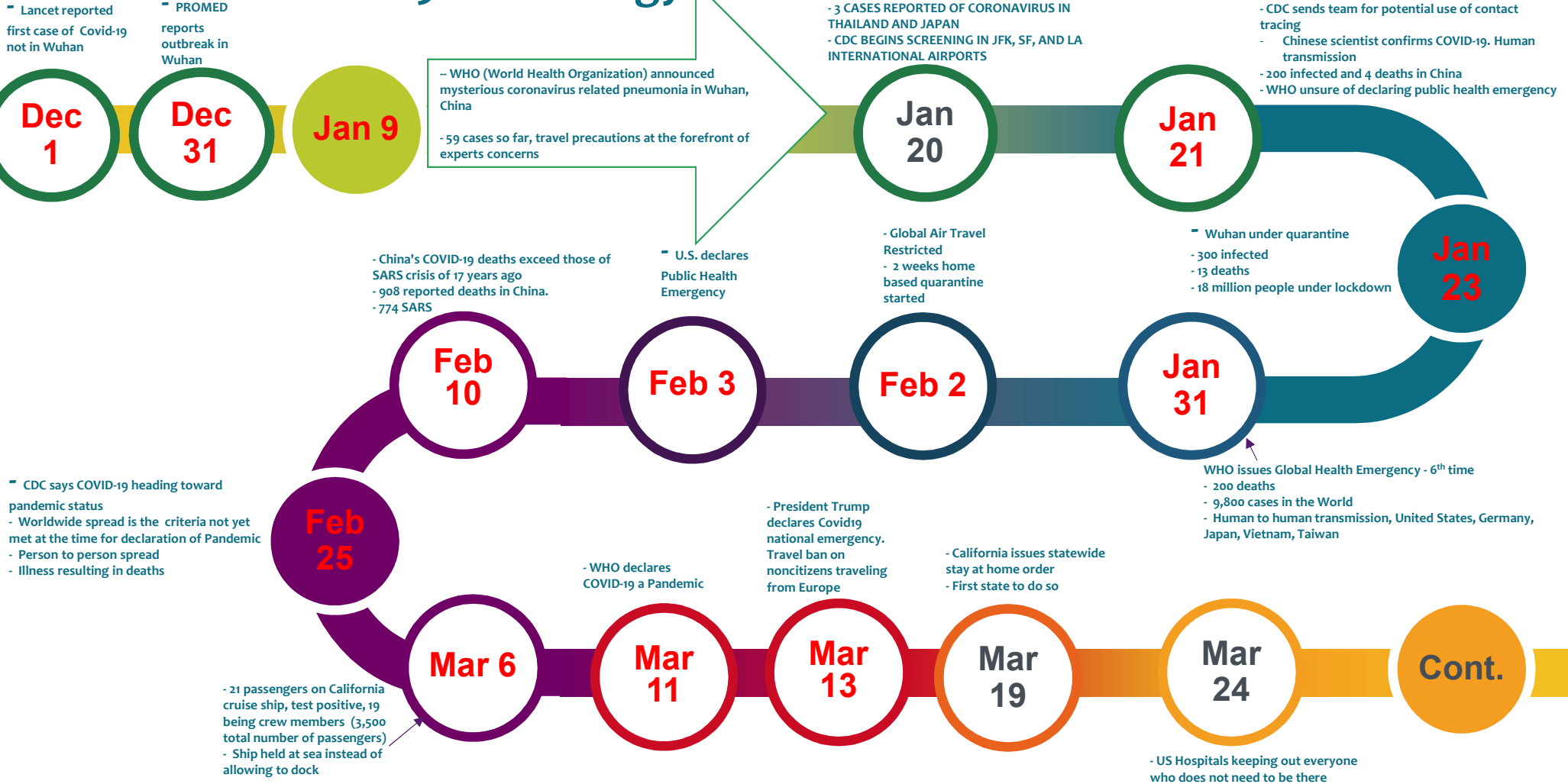
**COVID-19 THE
VIRUS THAT
CHANGED
THE WORLD**

A stylized globe of the Earth is shown in shades of blue and cyan, with city lights visible. Overlaid on the globe is a complex network of glowing red lines and dots, representing global connectivity or data flow. The lines are thin and curved, connecting various points across the globe.

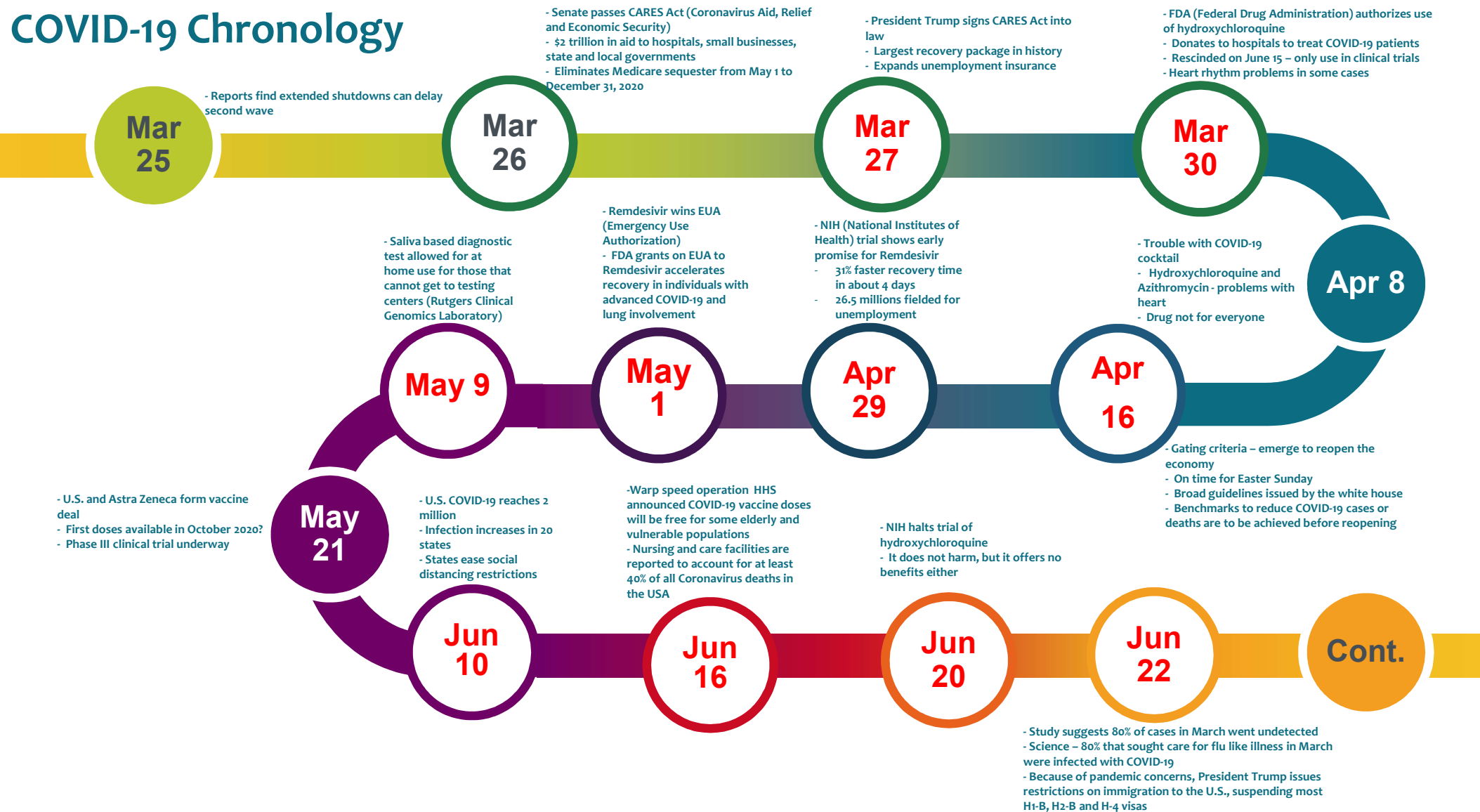
**“THE MICROBE THAT FELLED
ONE CHILD IN A DISTANT
CONTINENT YESTERDAY, CAN
REACH YOURS TODAY AND
SEED A GLOBAL PANDEMIC
TOMORROW”**

Joshua Lederberg, Nobel Laureate

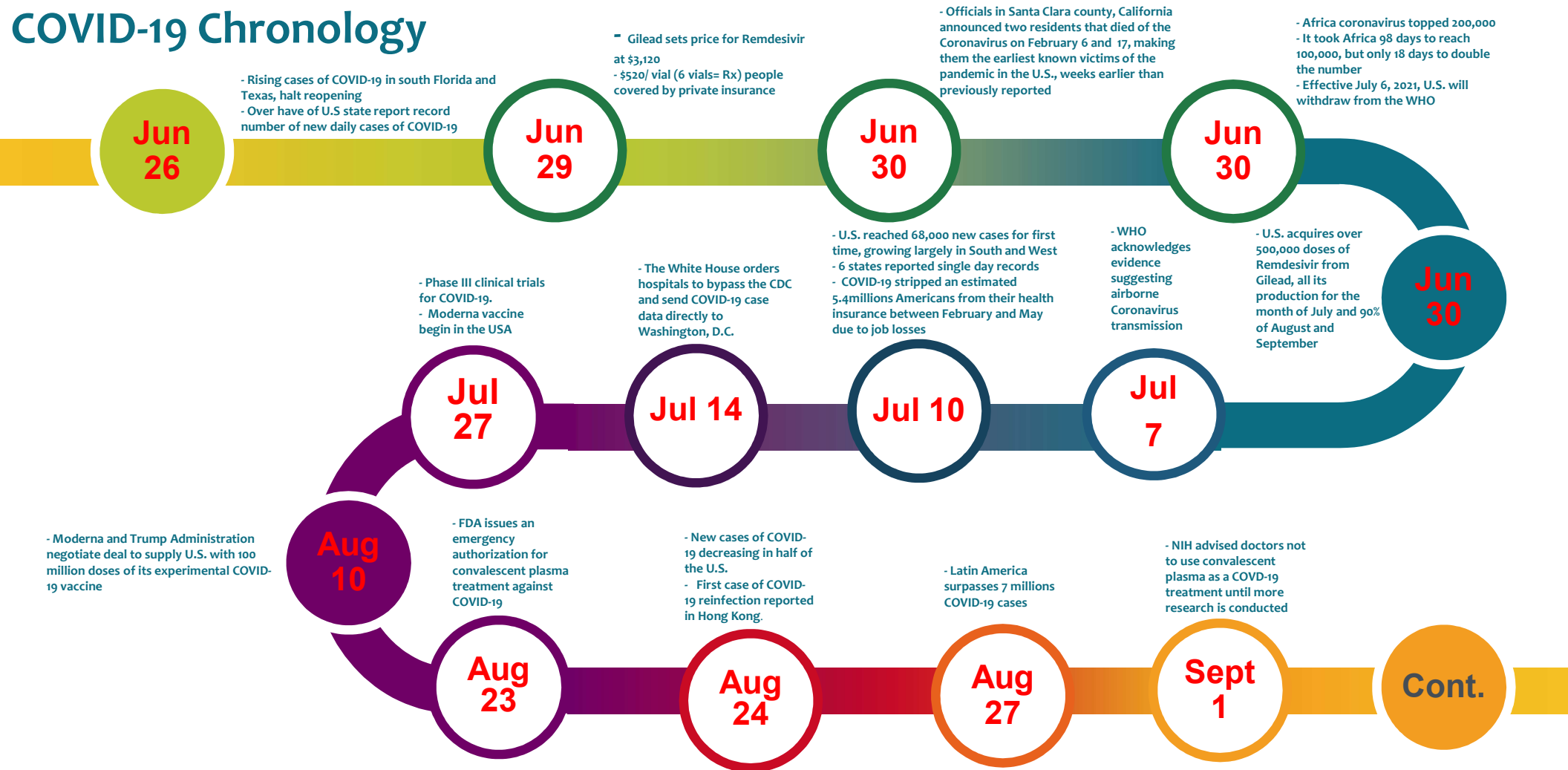
COVID-19 Chronology



COVID-19 Chronology



COVID-19 Chronology



Jun 26

- Rising cases of COVID-19 in south Florida and Texas, halt reopening
- Over have of U.S state report record number of new daily cases of COVID-19

Jun 29

- Gilead sets price for Remdesivir at \$3,120
- \$520/ vial (6 vials= Rx) people covered by private insurance

Jun 30

- Officials in Santa Clara county, California announced two residents that died of the Coronavirus on February 6 and 17, making them the earliest known victims of the pandemic in the U.S., weeks earlier than previously reported

Jun 30

- Africa coronavirus topped 200,000
- It took Africa 98 days to reach 100,000, but only 18 days to double the number
- Effective July 6, 2021, U.S. will withdraw from the WHO

Jun 30

- U.S. reached 68,000 new cases for first time, growing largely in South and West
- 6 states reported single day records
- COVID-19 stripped an estimated 5.4millions Americans from their health insurance between February and May due to job losses

- WHO acknowledges evidence suggesting airborne Coronavirus transmission

- U.S. acquires over 500,000 doses of Remdesivir from Gilead, all its production for the month of July and 90% of August and September

Jul 27

- Phase III clinical trials for COVID-19.
- Moderna vaccine begin in the USA

Jul 14

- The White House orders hospitals to bypass the CDC and send COVID-19 case data directly to Washington, D.C.

Jul 10

Jul 7

- Moderna and Trump Administration negotiate deal to supply U.S. with 100 million doses of its experimental COVID-19 vaccine

Aug 10

- FDA issues an emergency authorization for convalescent plasma treatment against COVID-19

Aug 23

Aug 24

- New cases of COVID-19 decreasing in half of the U.S.
- First case of COVID-19 reinfection reported in Hong Kong.

Aug 27

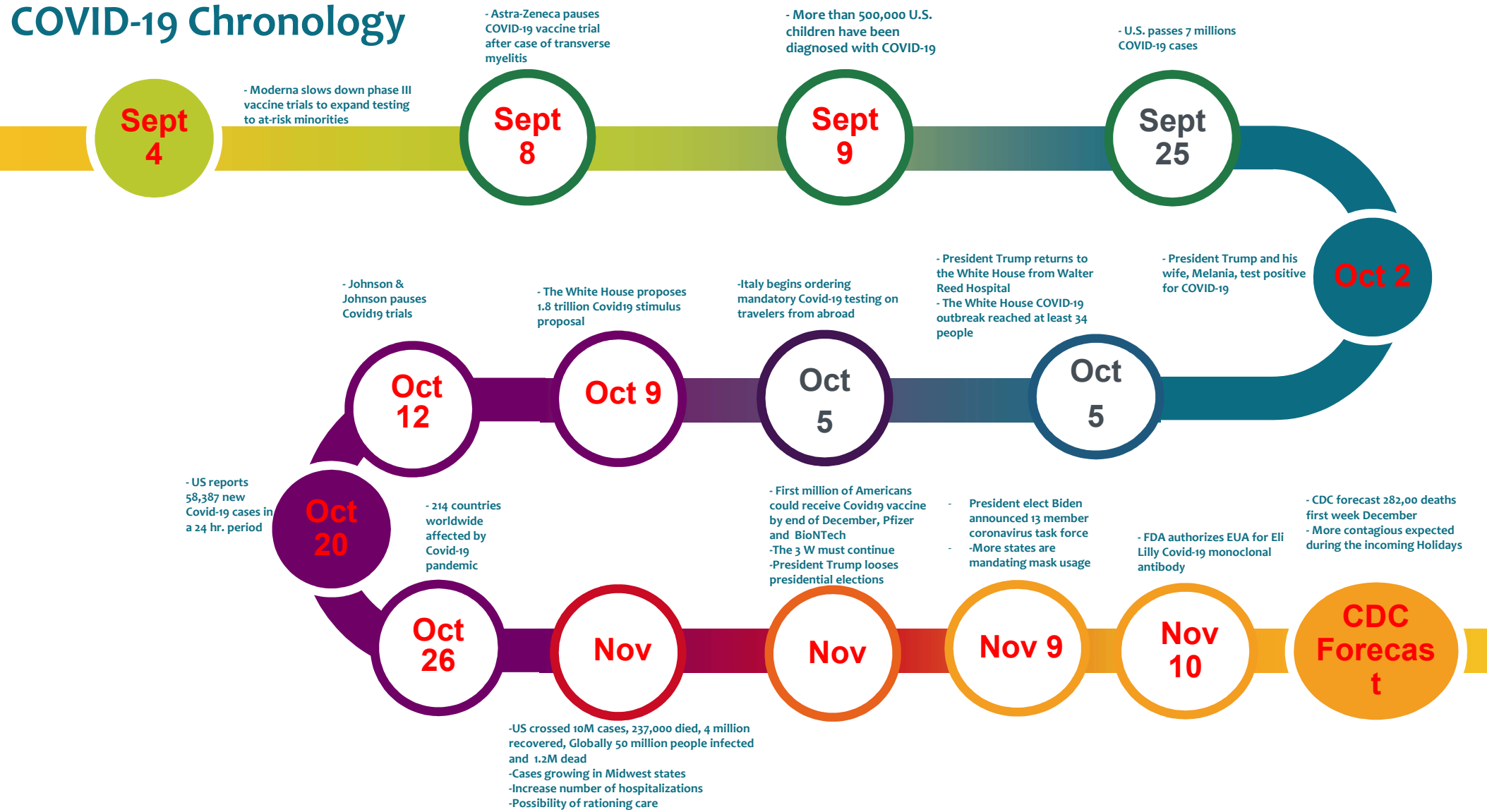
- Latin America surpasses 7 millions COVID-19 cases

Sept 1

- NIH advised doctors not to use convalescent plasma as a COVID-19 treatment until more research is conducted

Cont.

COVID-19 Chronology



WHAT WENT WRONG GLOBALLY

It all started with Chinese New Year 2020, also known as Spring Festival or Lunar New Year – The world's largest human migration of 3 billion people.



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- **The global health security community was almost uniformly in agreement that the most significant natural threat to population health and global security would be a respiratory virus; either a novel strain of influenza or a coronavirus that transferred from animals to humans. But for all of this foresight and planning national and international institutions alike failed to rise to the occasion.**

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- Failure of global and U.S. domestic preparedness and implementations.
 - Lack of cooperation and coordination across nations.
 - A breakdown of compliance with established norms and international agreements.
 - Patchwork of partial and mishandled responses.
 - **China compliance with International Health Regulations was at best FLAWED.**
 - China did not notify WHO in a timely manner of its assessment of the novel coronavirus.
 - Lancet reported first cases of COVID-19 did not originate at the Wuhan Market (December 1, 2019).

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- WHO first learned about outbreak in Wuhan not from Chinese authorities, but from press reports posted on December 31, 2019 on ProMED.
 - January 1, 2020 WHO requests verification from China based on ProMED post – but China does not share data with WHO until January 3, 2020.
 - January 20 – China National Health Commission publicly confirmed, that the virus was transmissible from person to person and that medical personnel had been infected
 - January 23 – Wuhan suspends public transportation and bars residents from leaving the city. 18 million people under lockdown in Wuhan

**WHAT WENT
WRONG
DOMESTICALLY**



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- **United States was unprepared for COVID-19**, having failed to integrate and implement the lessons of earlier epidemics and multiple training exercises. There was inadequate leadership and excessive partisanship.
 - **U.S. acted too slowly to mobilize response**, adopting ill conceived haphazard approaches trying to balance health and economic priorities for the country.
 - U.S. failed to effectively communicate a clear message to the citizens. There was no public health information system electronic or otherwise, that enabled authorities to identify regional variations in supply and demand of resources.
 - U.S. failed to develop a timely system for testing and quarantine.

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- U.S. lacked strong central coordination from The White House during first months of COVID-19 Pandemic. Such unclear lines of authority, diverge states in their strategies for addressing the pandemic.
 - Federal government was underinvested in local preparedness. It lacked a functioning National systems for responding to pandemics.
 - Communications were unclear, inconsistent and often politicized, rather than science based.
 - There was lack of multilateral mechanisms that would have ensured global supply chains for essential medicines, PPE supplies, manufacturing and their equitable distribution.



**LESSONS LEARNED FROM
COVID-19**

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- There were health disparities and inequities across Black and Hispanic communities that came to the forefront during the pandemic.
 - There was delay in developing and distributing tests and equipment. This hampered the identification of cases and delayed treatment.
 - Political agendas interfered with key scientific and opinion leader's health messages.
 - CDC was poorly equipped with testing capabilities at the beginning of the pandemic.
 - Lack of data sharing and scientific information among different institutions delayed pertinent response.



OTHER LESSONS LEARNED - COVID-19

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- Stick to Science. We don't know everything. Be flexible enough to change or modify policies.
 - Communicate to the public clear and transparent plans that describe factors being considered when moving from phase to phase during the pandemic. Do it with empathy and consistency.
 - Pandemic restrictions are to be eased, only when robust systems are in place to respond or control expansions of the pandemic.
 - Governments should educate their citizens and directly involve them in relevant processes especially when trying to impact and modify human behavior.
 - Alert the public that even in the presence of a vaccine, continued measures to reduce transmission will be needed for some time.

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- **The reality is that this pandemic has demonstrated the difficulty of responding effectively to emerging outbreaks in a context of growing geopolitical rivalry abroad and intense political partisanship at home.**



RECOMMENDATIONS

I. **Adopt a robust strategy for domestic and global pandemic preparedness**

- **Revitalize CDC**

- Clarify federal and state authorities' roles and responsibilities

- **Continue support of WHO** - U.S. should remain a WHO member state and advance any reform from within the institution.

- Increase the portion of federal budget devoted to domestic pandemic preparedness and response.

- Bolster Pandemic Prevention and revamp all multilateral systems for detection, response and implementation.

II. Immediate steps must be taken by the federal, state and local governments to reduce the vulnerability of marginalized and underserved groups at risk of the epidemic.

III. Strengthen Pandemic Response

- Develop national strategy for testing and contact tracing
 - Maintain a ready and dependable National Stockpile.
- **Diversify global supply chains without unduly distorting international trade.**
- **Build U.S. new manufacturing capabilities.**
 - **Expand domestic production of critical medicines and equipment.**

IV. Make Pandemic Preparedness a National Security Priority

- Designate a focal point within The White House for Global Health Security.
- Secretary of State should designate an ambassador-level official to help coordinate the U.S. diplomatic response to international issues of public health.

V. Primary Health Care should be central to any effort meant to strengthen the pandemic response capacity of the U.S. Health Care System.

VI. Strengthen the frontlines of the U.S. Health Care System

- Invest in Telehealth to reach underserved population
- Support task shifting models to rapidly increase staff in areas of workforce shortages.

VII. U.S. and partners (G-7) should increase international assistance and pursue external sources of financing to assist low and lower middle-income countries.

VIII. Multilateral mechanisms for the equitable allocation of vaccines

- Such efforts should be equitable, public health driven and globally coordinated.

CONCLUSIONS



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- **COVID-19 pandemic is NOT OVER** so, do not underestimate the virus.
 - It will haunt us until we have a vaccine.
 - If we are not prepared when this virus is vanquished, another will take its place.
 - Plan for the unexpected but have contingency plan.
 - Use technology to reach the masses (Telehealth).
 - When in doubt avoid the 3 “C’s” – **Crowded, Close and Confined** and remember the 3 “W’s” (**Wear a Mask, Wash your Hands, Watch your Distance**).
 - We need to “prepare for the worst and hope for the best.”

This too shall pass, how long it lasts is really up to *us*



DESPITE EVERYTHING, IF THE COVID-19 PANDEMIC HAS REVEALED ANYTHING, IT IS THAT STRONG AND SUSTAINED GLOBAL LEADERSHIP REMAINS ESSENTIAL FOR EFFECTIVE

MULTILATERAL COOPERATION. THERE IS SIMPLY NO SUBSTITUTE. WHEN THE U.S. ADOPTS AN INSULAR POSTURE, RATHER THAN RALLYING THE WORLD BEHIND A COMMON OBJECTIVE, THERE IS A HAPHAZARD AND DISJOINTED INTERNATIONAL RESPONSE.



THE CORONAVIRUS PANDEMIC HAS PROVEN TO THE WORLD WHAT THE VALUE OF FREEDOM IS ALL ABOUT, THE FREEDOM TO MOVE, THE FREEDOM TO BE WITH THOSE WE LOVE, THE FREEDOM TO LIVE IN DIGNITY AND ABOVE ALL THE FREEDOM TO FEEL SECURE.

IN REALITY THE PANDEMIC HAS TAUGHT US THE TRUE UNCERTAINTY OF HUMAN EXISTENCE AND THE TRUE