COVID-19 DAY 129 MEDIA UPDATE
JULY 17, 2020
SECRETARY DAVID R. SCRASE, M.D.

INVESTING FOR TOMORROW, DELIVERING TODAY.
IMMUNITY TO COVID-19 COULD BE LOST IN MONTHS, UK STUDY SUGGESTS

▪ Study has been submitted to a journal but has yet to be peer-reviewed.
▪ King’s College London team found steep drops in patients’ antibody levels three months after infection.
▪ First longitudinal study of its kind, scientists analyzed immune response of more than 90 patients and healthcare workers at Guy’s and St Thomas’ NHS foundation trust and found levels of antibodies that can destroy the virus peaked about 3 weeks after the onset of symptoms then swiftly declined.
▪ Blood tests revealed that while 60% of people marshalled a “potent” antibody response at the height of their battle with the virus, only 17% retained the same potency three months later. Antibody levels fell as much as 23-fold over the period. In some cases, they became undetectable.
▪ Study has implications for the development of a vaccine, and for the pursuit of “herd immunity” in the community over time.
Individuals in the convalescent phase after asymptomatic or mild COVID-19 had a robust memory T-cell response, even in the absence of virus specific circulating antibodies indicating a previously unanticipated degree of population level immunity against COVID-19.

Almost twice as many exposed family members and healthy donors (during the Pandemic) generated memory T-cell responses versus antibody response.
CLINICAL AND IMMUNOLOGICAL ASSESSMENT OF ASYMPTOMATIC SARS-COV-2 INFECTIONS

- 37 Asymptomatic and 37 Symptomatic individuals (Wanzhou District, China)
- Viral shedding was more prolonged in asymptomatic individuals
- IgG levels were significantly lower in asymptomatic individuals
- IgG and neutralizing antibodies decreased during the early convalescent period (8 weeks) in both Asymptomatic and Symptomatic
- 40% of Asymptomatic and 12.9% of Symptomatic patients became seronegative

The clinical and immunological assessment of asymptomatic SARS-CoV-2 infections

Quan-Xin Long, Xiao-Jun Tang, Qiu-Lin Shi, Qin Li, Hai-Jun Deng, Jun Yuan, Jie-Li Hu, Wei Xu, Yong Zhang, Fa-Jin Lv, Kun Su, Fan Zhang, Jiang Gong, Bo Wu, Xia-Mao Liu, Jin-Jing Li, Jing-Fu Qiu, Juan Chen, and Ai-Long Huang

The clinical features and immune responses of asymptomatic individuals infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) have not been well described. We studied 37 asymptomatic individuals in the Wanzhou District who were diagnosed with RT-PCR-confirmed SARS-CoV-2 infections but without any relevant clinical symptoms in the preceding 14 days and during hospitalization. Asymptomatic individuals were admitted to the government-designated Wanzhou People’s Hospital for centralized isolation in accordance with policy. The median duration of viral shedding in the asymptomatic group was 19.4 days (interquartile range [IQR]: 15.2–26.1). The asymptomatic group had a significantly longer duration of viral shedding than the symptomatic group (log-rank \( P=0.023 \)). The virus-specific IgG levels in the asymptomatic group (median S/CO, 3.4; IQR, 1.6–10.7) were significantly lower (\( P=0.005 \)) relative to the symptomatic group (median S/CO, 20.5; IQR, 5.8–38.2) in the acute phase. Of asymptomatic individuals, 93.3% (26/28) and 81.1% (37/46) had reduction in IgG and neutralizing antibody levels, respectively, during the early convalescent phase, as compared to pre-symptomatic levels (8 weeks) and 61.2% (27/44) of symptomatic patients. Forty percent of asymptomatic individuals became seronegative and 12.9% of the asymptomatic group became negative for IgG in the early convalescent phase. In addition, asymptomatic individuals exhibited lower levels of 18S and anti-inflammatory cytokines. These data suggest that asymptomatic individuals had a weaker immune response to SARS-CoV-2 infection. The reduction in IgG and neutralizing antibody levels in the early convalescent phase may have implications for immunity strategy and serological surveys.

As of May 24, 2020, the coronavirus disease 2019 (COVID-19) pandemic caused by SARS-CoV-2 has affected more than 5 million people around the world. Most patients with SARS-CoV-2 infection understand the clinical features and immune responses of asymptomatic individuals with SARS-CoV-2 infection is limited. Here we describe the epidemiological and clinical characteristics, virus levels and immune responses in 37 asymptomatic individuals.

Results

Demographic characteristics. On February 6, 2020, the National Health Commission of China updated the COVID-19 Prevention and Control Plan (4th edition) for the management of close contacts, emphasizing identification and quarantine of asymptomatic individuals. To identify asymptomatic individuals, the Wanzhou District Centers for Disease Control and Prevention (CDC) then conducted extensive RT-PCR screening for 2,008 close contacts under quarantine. Individuals with positive RT-PCR results then were screened by point prevalence surveys carried out by the local CDC and asymptomatic assessments reported by clinicians. Of these, 60 individuals claimed no symptoms in the preceding 14 days, according to local CDC records, and were transferred to a government-designated hospital for centralized isolation. On admission, 17 individuals were excluded for mild or atypical symptoms based on symptoms assessments reported by clinicians; six individuals who developed symptoms 4–17 days after admission were also excluded. Finally, 37 asymptomatic cases, defined as individuals with a positive nucleic acid test result but without any relevant clinical symptoms in the preceding 14 days and during hospitalization, were included in this study. A total of 1,184 patients with confirmed SARS-CoV-2 infections were identified in the Wanzhou District before April 10, 2020, as tracked by CDC surveillance systems. In this study, the proportion of patients with asymptomatic infections was 20.8% (37/178).

For antibody detection and cytokine measurements, 37 asymptomatic patients were selected for comparison with the asymptomatic patients.
**COVID-19 VACCINE DEVELOPMENT**

- **155 vaccines** in development with **23 vaccines** in human trial phase.

- Regarding immune boosting results of first COVID-19 vaccine tested in US, nation’s top infection disease expert, Dr. Anthony Fauci: “No matter how you slice this, this is good news.”

- There has never been a vaccine designed successfully for a RNA virus.

- A vaccine is just the first step in a long process towards possible eradication (e.g. vaccine manufacturing, distribution, usage)
## COVID-19 CANDIDATE VACCINES IN HUMAN TRIALS

<table>
<thead>
<tr>
<th>Platform</th>
<th># in clinical evaluation</th>
<th># in Phase 3 stage of clinical trial</th>
<th>Platform definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inactivated</td>
<td>5</td>
<td>1</td>
<td>Use inactive virus; usually requires multiple doses. Not as effective as live virus vaccines.</td>
</tr>
<tr>
<td>Non-Replicating Viral Vector</td>
<td>3</td>
<td>1</td>
<td>Combines qualities of DNA vaccines with live attenuated vaccine.</td>
</tr>
<tr>
<td>Protein Subunit</td>
<td>5</td>
<td>0</td>
<td>Use piece of virus to strengthen immune response aimed at part virus. May need booster. Ok for immunocompromised.</td>
</tr>
<tr>
<td>RNA</td>
<td>5</td>
<td>1</td>
<td>RNA introduced into the body containing genetic information to produce a toxin initiating immune response.</td>
</tr>
<tr>
<td>DNA</td>
<td>11</td>
<td>0</td>
<td>DNA introduced into the body containing genetic information to produce a toxin initiating immune response.</td>
</tr>
<tr>
<td>VLP</td>
<td>1</td>
<td>0</td>
<td>Virus like particles mimic virus but lack viral genetics.</td>
</tr>
</tbody>
</table>
COVID-SAFE PRACTICE: UNIVERSAL MASK WEARING

▪ **JAMA** Increasing evidence universal mask wearing decreases spread of COVID-19 in health care and community settings.

▪ Masks lessen the movement of virus by filtering exhaled air through the mask and catching droplets which prevent droplets from spreading far and wide especially while talking or coughing.
• N95 masks with valves and cloth covering/bandanas masks do allow some flow of droplets and are not suitable for medical settings.

• However, universal mask wearing (regardless of type) increases protection from COVID-19.

• **CDC Director Dr. Robert Redfield**: “We are not defenseless against COVID-19. Cloth face coverings are one of the most powerful weapons we have to slow and stop the spread of the virus – particularly when used universally within a community setting.”
Among 139 clients exposed to 2 symptomatic hair stylists with confirmed COVID-19 while both the stylists and the clients wore face masks, no symptomatic secondary cases were reported; among 67 clients tested for SARS-CoV-2, all test results were negative.

Adherence to the community’s and company’s face-covering policy likely mitigated spread of SARS-CoV-2.

As stay-at-home orders are lifted, professional and social interactions in the community will present more opportunities for spread of SARS-CoV-2. **Broader implementation of face covering policies could mitigate the spread of infection in the general population.**
PROJECTED DEATHS OF DESPAIR FROM COVID-19

- Deaths of despair are the epidemic within the pandemic.
- Virtual community may not be enough to hold off the impact of isolation and loneliness.
- Stress of uncertainty has a serious impact on the emergence and worsening of mental illness.
- Social isolation plus unemployment are associated with increased rates of suicide.
- Countries with protective labor market policies are associated with lower rates of suicide.
ESTIMATES OF ADDITIONAL DEATHS OF DESPAIR, 2020-2029

<table>
<thead>
<tr>
<th></th>
<th>Deaths of Despair, 2018</th>
<th>Excess Unemployment, 2008-2018</th>
<th>Additional Deaths, 2020-2029</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deaths</td>
<td>Population</td>
<td>Rate per 100,000</td>
</tr>
<tr>
<td>NM</td>
<td>2,074</td>
<td>2,095,428</td>
<td>99.0</td>
</tr>
<tr>
<td>US</td>
<td>181,686</td>
<td>327,167,434</td>
<td>55.5</td>
</tr>
</tbody>
</table>

Note: Based on “middle” scenario (Peak unemployment of 15%, medium length recovery; 1.3% increase in deaths for each point increase in unemployment, assuming 65,598 deaths nationally. Excess unemployment is the cumulative sum of persons unemployed from 2008-2018 in excess of 2017 count).
COVID-19 POOL TESTING: HOW IT WORKS

▪ Consider a company with 100 employees in a city believed to have a 5% COVID-19 prevalence rate. The testing laboratory splits up the company’s workforce into 20 groups of 5 workers each.

▪ If we assume 5 workers have COVID-19, at most 5 pools will return positive tests.

▪ Lab would then go back and retest all individuals in the 5 pools that returned positives (25 tests total).

▪ The company pays for 45 tests (20 initial pooled tests and 25 individual tests) compared to 100 tests that would have been needed if they had tested everyone individually.
COVID-19 IN NM UPDATE
NM COVID-19 DAILY & CUMULATIVE TESTS/CASES

NM Daily and Cumulative COVID-19 Tests

Number New Tests  Running Total Tests

NM Daily COVID-19 New Cases and Running Total

Number New Cases  Running Total Cases

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NM COVID-19 Cases, Hospitalizations, and Deaths
7 Day Rolling Average

- 7 Day Rolling Avg. Hospitalizations
- 7-Day Rolling Avg. Cases
- 7-Day Rolling Avg. Deaths
Total COVID-19 Positive Cases (7/16/2020)

Source: New Mexico Department of Health. * denotes death occurred in county. Excludes cases in federal and state detention facilities.

New Mexico Department of Health. * denotes new death occurred in county. Excludes cases in federal and state detention facilities.
7-Day Average of Daily COVID-19 Positive Cases, NMDOH Regions

7/17/2020

Source: New Mexico Department of Health
Cases correspond to date of sample collection. There is a 6-day lag in case reporting.
COVID-19 7-Day Rolling Average of Daily Growth Rate Based on Date of Collection, 7/16/20

7-Day Rolling Average of the Daily Growth Rate, NMDOH Region, 7/16/20

- Metro
- Northeast
- Northwest
- Southeast
- Southwest
- New Mexico
Daily COVID-19 Positive Cases, NMDOH Regions
7/17/2020

Source: New Mexico Department of Health
Cases correspond to date of sample collection
There is a 6-day lag in case reporting
New Confirmed COVID-19 Cases per Day by US States/Territories, normalized by population

Data: Johns Hopkins CSSE; Updated: 07/17/2020
Interactive Visualization: https://91-DIVOC.com/by@profwade_
7-day Average of Mean Distance Traveled by NMDOH Region
7/15/2020

Distance Traveled (km)

Date

Metro  Northeast  Northwest  Southeast  Southwest

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Mean Miles Traveled in New Mexico

Pre-COVID-19 Mean Miles Traveled

Source: Descartes Labs
Reduction in Mobility and COVID-19 Public Health Orders in New Mexico

New Mexico Public Health Order Effective Dates and Summaries

1) 3/12/2020: No mass gatherings of 100 or more individuals
2) 3/13/2020: Unit nursing home visitsations
3) 3/16/2020: Reduction in food services occupancy and capacity to 50% of max; Non-tribal casino and horse racing closures; Public school closures (Executive Order)
4) 3/19/2020: No mass gatherings of 10 or more individuals; Restaurants reduce food services to takeout/delivery; Malls, flea markets, theaters, resorts, spas, athletic & recreational facilities closures; Reduction in hotel occupancy to 50% of max
5) 3/23/2020: No mass gatherings of 5 or more individuals; Non-essential businesses reduce in-person workforce by 100%
6) 3/24/2020: No non-essential health care services
7) 4/06/2020: Reduction in occupancy for essential business retail space to 20% of max; Reduction in places of lodging occupancy to 25% of max; No short-term rentals
8) 4/11/2020: Mass gatherings restrictions to include religious gatherings such as churches, synagogues, mosques, and other houses of worship
9) 4/30/2020: Preparation Phase: Golf courses, animal care and zoos, and firearms retail and horse racing facilities can operate with limits; non-essential health care services allowed. Cibola, McKinley, and San Juan counties excluded
10) 5/01/2020: Riot Control Act invoked on Gallup. Closure of all roads and curfew until 16
11) 5/05/2020: Essential business employees in large retail space or restaurants required to wear face masks starting 5/6. Expand to employees in all essential business retail space starting 5/11
12) 5/13/2020: Phase 1: Nonessential businesses and houses of worship can operate at 25% of max occupancy; Short-term rentals limited to residents only; Close-contact businesses and recreational facilities excluded; Outdoor tennis facilities, state parks for day use, and summer youth programs allowed; COVID-Safe Practices in place; face masks required in public except when eating, drinking, or exercising; Cibola, McKinley, and San Juan counties begin Preparation Phase
13) 5/27/2020: Restaurants can provide outdoor or patio dine-in services at 50% of max outdoor occupancy
14) 6/01/2020: Restaurants, gyms, swimming pools, places of lodging can operate at 50% of max indoor occupancy; Indoor malls can operate at 25% of max occupancy
15) 6/12/2020: Breweries can provide outdoor or patio services at 50% of max outdoor occupancy; Wineries and distillers can provide carry out services
16) 6/21/2020: Retail space must require customers to wear face masks to enter premises; Out of state visitors on nonessential travel must self-isolate for 14 days (Executive Order)
17) 7/13/2020: Restaurants limit services to outdoor dine-in services at 50% of max outdoor occupancy and no indoor dine-in service allowed; No organized amateur contact sports allowed; State Parks open only to New Mexico residents; Face masks required in all public settings except when eating, drinking, or swimming.
NM COVID-19 Number of Cases per Week, Age Group

Source: NMDOH, 7/16/20. Excludes those incarcerated in state and federal prisons, federal immigration facilities, and out-of-state residents. Cases in the last 7 days may not yet be reported.
Source: NMDOH, 7/16/20. Excludes those incarcerated in state and federal prisons, federal immigration facilities, and out-of-state residents. Hospitalizations in the last 7 days may not yet be reported.
NM COVID-19 Deaths, Week and Age Group

NM COVID-19 Tests Performed per Week, Age Group

Source: NMDOH, Tests performed are through 7/15/20.
COVID-19 Symptomatic and Asymptomatic, 20-29 Year Old Age Group, NM (%)

Source: NMDOH, 7/16/20. Excludes out-of-state residents. Self-reported by cases.

COVID-19 Symptomatic and Asymptomatic, 30-39 Year Old Age Group, NM (%)

Source: NMDOH, 7/16/20. Excludes out-of-state residents. Self-reported by cases.
NM COVID-19 Cases Over Time in 20-29 Year Old Age Group, Race/Ethnicity

Source: NMDOH, 7/16/20. Excludes those incarcerated in state and federal prisons, federal immigration facilities, and out-of-state residents. Cases in the last 7 days may not yet be reported.
NM COVID-19 Cases Over Time in 30-39 Year Old Age Group, Race/Ethnicity

Source: NMDOH, 7/16/20. Excludes those incarcerated in state and federal prisons, federal immigration facilities, and out-of-state residents. Cases in the last 7 days may not yet be reported.
COVID-19 deaths have been decreasing since May, but the number of deaths may increase in the next few weeks due to the recent rise in case counts and hospitalizations.

COVID-19 Deaths by Week of Death, New Mexico

[Bar chart showing the number of deaths by week from 3/22-3/28 to 7/5-7/11.]

Reporting through 7/10/2020
As age increases, the case fatality rate also increases. Age groups 75-84 and 85+ continue to have the highest case fatality rates.
GATING CRITERIA UPDATE
## STATEWIDE PUBLIC HEALTH GATING CRITERIA FOR REOPENING

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Measure</th>
<th>Initial Gating Value</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spread of COVID-19</td>
<td>Rate of COVID-19 Transmission</td>
<td>1.05 or less</td>
<td>1.09 on 7/16/2020</td>
</tr>
<tr>
<td>Testing Capacity: general and targeted</td>
<td>Number of tests per day (7-day rolling average)</td>
<td>5,000 / day</td>
<td>6,784 on 7/15/2020</td>
</tr>
<tr>
<td>populations*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Tracing and Isolation Capacity</td>
<td>Time from positive test result to:</td>
<td>24 hrs</td>
<td>Week ending 7/10 = 53</td>
</tr>
<tr>
<td></td>
<td>-isolation recommendation for case</td>
<td>36 hrs</td>
<td>Week ending 7/10 = 84</td>
</tr>
<tr>
<td></td>
<td>-quarantine rec. for case contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statewide Health Care System Capacity</td>
<td>Availability of scarce resources in 7 Hub Hospitals:</td>
<td>&lt;460</td>
<td>268 on 7/17/2020</td>
</tr>
<tr>
<td></td>
<td>-Adult ICU beds occupied</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-PPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7-day supply</td>
<td>7 hub hospitals have 7-day supply</td>
</tr>
</tbody>
</table>
### How We Reopen Safely

**14-Day Trend of COVID+**

- New Mexico: 39% Increasing

**Last 14 Days of COVID+ (Rolling)**

- New Mexico: 164

**Influenza-Like Illness**

- New Mexico: Minimal Level 7

**% of Test Target**

- New Mexico: 202%

**ICU Occupied**

- New Mexico: N/A%

**New Cases Per Million Per Day**

- New Mexico: 122

**COVID+ Rate Is**

- New Mexico: 4.0% Increasing

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**Notes:** If a 😷 is next to a state it indicates a state-wide mandated mask policy. For detailed definitions see: [https://www.covidexitstrategy.org/definitions-and-criteria](https://www.covidexitstrategy.org/definitions-and-criteria)

**Table:** covidexitstrategy.org • **Source:** Multiple Sources (NYT, COVID Tracking Project, rt.live, ILI, CDC) • **Get the data** • Created with Datawrapper
# Hospital Bed Capacity by State

<table>
<thead>
<tr>
<th>State</th>
<th>US Ranking</th>
<th>Hospital Beds per 1000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota</td>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>United States Average</td>
<td>N/A</td>
<td>2.4</td>
</tr>
<tr>
<td>Texas</td>
<td>30</td>
<td>2.3</td>
</tr>
<tr>
<td>Arizona</td>
<td>42</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>New Mexico</strong></td>
<td>49</td>
<td>1.8</td>
</tr>
<tr>
<td>Oregon</td>
<td>51</td>
<td>1.6</td>
</tr>
</tbody>
</table>

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NM ICU BEDS MAXIMUM FILLED ON 10/5/2020
7/13 PUBLIC HEALTH ORDER

- All New Mexicans should be staying in their homes for all but the most essential activities and services.
- All individuals must wear face coverings in public, even when exercising. Only exception to mask wearing is while eating or drinking.
- Indoor seating at restaurants and breweries prohibited; 50% maximum occupancy for outdoor seating.
- State parks accessible only to residents of New Mexico with proof of residency.
14,874 N95’s decontaminated YTD in NM
323 Facilities Signed; enroll at www.battelle.org/decon
Discard rate 5.77%

Decontamination Process: Unloading
- Once the VHP has cleared the chamber, masks are tested to ensure residual VHP is <1 ppm (OSHA limit)
- Chemical indicators placed throughout the chamber verify the run achieved a >6 log reduction
- Staff in PPE, to protect the N95s, conduct another inspection and then box the masks for shipping back to health care providers

*VHP-Vapor Hydrogen Peroxide*

Reasons For Discard
- Makeup is #1 reason
- Wrong Type
- Rust

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NEW MEXICO MEDICAL RESERVE CORPS VOLUNTEERS

Volunteers are providing support:

- Gallup shelters
- Little Sisters of the Poor (Gallup)
- Rehoboth Hospital (Gallup)
- GIMC Hospital (Gallup)
- Farmington Shelters
- Hilton Garden Inn
- Westside Homeless Shelter
- Presbyterian Hospital (Balloon Fiesta Park)
- Lovelace drive through swabbing Clinics
- Santa Fe Call Center
- Buffalo Thunder

- Paid Volunteer hours 14,380.63
- Un-Paid Volunteer hours 5,128.5
- Total Hours 19,509.13

Interested in becoming an MRC volunteer? Please go to [Medical Reserve Corps Serve](#).
NEW MEXICO
LINEA DE APOYO PARA TRABAJADORES DE SALUD Y PRIMEROS RESPONDedores

855-507-5509

NEW MEXICO HEALTHCARE WORKER AND FIRST RESPONDER SUPPORT LINE

855-507-5509