

Published Date: 2023-03-29 06:20:24 CEST

Subject: PRO/AH/EDR> COVID-19 update (13): India, surveillance, HCW, rats, infant hospitalizations, WHO, global

Archive Number: 20230329.8709196

CORONAVIRUS DISEASE 2019 UPDATE (13): INDIA, SURVEILLANCE, HEALTHCARE WORKERS, RATS, INFANT HOSPITALIZATIONS, WHO, GLOBAL UPDATE

A ProMED-mail post http://www.promedmail.org ProMED-mail is a program of the International Society for Infectious Diseases

http://www.isid.org

[1] India: Amid rise in COVID-19 cases, Centre reviews with states pandemic preparedness

[2] Surveillance dismantled

[A] COVID-19 app for England and Wales discontinued as usage dwindles

[B] The Times switches to CDC COVID-19 data, ending daily collection

[3] Increased SARS-CoV-2 seroprevalence and spread without awareness among HCWs through 2020-2022 in a Japanese medical center

[4] Researchers find New York City rats carry the COVID-19 virus

[5] COVID-19 infant hospitalizations reduced by a 3rd maternal vaccine dose during pregnancy

[6] WHO: daily new cases reported (as of 21 Mar 2023)

[7] Global update: Worldometer (accessed 23 Mar 2023, 02:15 GMT)

[1] India: Amid rise in COVID-19 cases, Centre reviews with states pandemic management preparedness

Date: Mon 27 Mar 2023

Source: The Times of India [edited]

 $https://timesofindia.indiatimes.com/india/amid-rise-in-covid-cases-centre-reviews-with-states-pandemic-management-preparedness/articleshow/99041527.cms? from=mdr_order_india_indiatimes.com/india/amid-rise-in-covid-cases-centre-reviews-with-states-pandemic-management-preparedness/articleshow/99041527.cms? from=mdr_order_india_indiatimes.com/india/amid-rise-in-covid-cases-centre-reviews-with-states-pandemic-management-preparedness/articleshow/99041527.cms? from=mdr_order_india_indiatimes.com/india/amid-rise-in-covid-cases-centre-reviews-with-states-pandemic-management-preparedness/articleshow/99041527.cms? from=mdr_order_india_indiatimes.com/india/amid-rise-in-covid-cases-centre-reviews-with-states-pandemic-management-preparedness/articleshow/99041527.cms? from=mdr_order_india_indiatimes.com/india/amid-rise-in-covid-cases-centre-reviews-with-states-pandemic-management-preparedness/articleshow/99041527.cms? from=mdr_order_india_i$

Amid a spike in COVID-19 cases, the Centre on [Mon 27 Mar 2023] reviewed with states and Union territories the preparedness for pandemic management and the progress of vaccination.

Union Health Secretary Rajesh Bhushan who chaired the high-level meeting stressed on ramping up testing with a higher proportion of RT-PCR, and whole genome sequencing of positive samples.

Urging people to follow COVID-19-appropriate behaviour at all times, he stressed the need to increase administration of precaution dose, especially in the vulnerable population group.

The meeting held virtually was attended by Dr. V K Paul, Member (Health), NITI Aayog, Dr. Rajiv Bahl, Secretary of the Department of Health Research and ICMR Director General, and representatives of states and UTs.

Referring to the message of the prime minister at the high-level review meeting held on [Wed 22 Mar 2023], the health secretary advised states to be on the alert and ensure preparedness for the COVID-19 management, according to a statement issued by the Union Health Ministry.

He cautioned states and UTs against any complacency and advised them to follow up on the priorities listed in a joint advisory issued by the Department of Health Research and the Department of Health and Family Welfare.

 $\label{lem:control_c$

States and UTs were briefed that India has been witnessing an increase in COVID-19 cases with average daily cases rising to 966 in the week ending [23 Mar 2023] from 313 average daily cases in the week ending [3 Mar 2023], and the weekly positivity going up to 1.08% during the same time.

The meeting was informed that the weekly positivity in Maharashtra has gone up to 4.58% as on [24 Mar 2023] from 0.54% in the week ending [3 Mar 2023], the statement said.

In Gujarat, it has increased to 2.17% from 0.07%. In Kerala, the weekly positivity rate shot up to 4.51 from 1.47%. Karnataka witnessed the average weekly positivity rise up to 3.05% from 1.6%, while Delhi has seen the weekly positivity rate rise to 4.25% from 0.53%.

A total of 22 states and UTs are reporting average daily TPM (tests per million) less than the national average. It was also pointed out that 24 districts in India are reporting more than 10% weekly positivity in the week ending [24 Mar 2023], while 43 districts are reporting the weekly positivity rate between 5-10% in the same time period.

Bhushan advised states to undertake mock drills across all health facilities on [10 and 11 Apr 2023] to ensure operational readiness of hospital infrastructure, including oxygen cylinders, PSA plants, ventilators, logistics and human resources.

He was informed about the status of the last mock drill which was conducted on [27 Dec 2023], the statement said.

The health secretary said that irrespective of the new COVID-19 variants, the approach of "test-track-treat-vaccinate and adherence to COVID-19-appropriate behaviour" continues to remain the

03.04.23, 12:35

tested strategy for the pandemic management.

This would facilitate undertaking of appropriate public health measures, he said.

States were also urged to ensure availability of sufficient designated beds and health workers across the states, enhance community awareness regarding disease and vaccination and regularly update COVID-19 data in the COVID India portal.

Dr. V K Paul highlighted the need for an increased vigil due to the prevalence of new variants and the vaccine immunity across the country currently being at a modest level.

Dr. Rajiv Bahl encouraged states to ramp up testing, especially RT-PCR tests, and maintain precaution.

Communicated by:

ProMED

[2] Surveillance dismantled

[A] COVID-19 app for England and Wales discontinued as usage dwindles

Date: Mon 27 Mar 2023
Source: The Guardian [edited]

https://www.theguardian.com/world/2023/mar/27/covid-contact-tracing-app-discontinued-as-usage-dwindles

The COVID-19 contact-tracing app for England and Wales, which was downloaded 31m times during the course of the pandemic, is being wound down later this week.

Coming about 3 years since the first nationwide lockdown, the move is part of a drive to encourage people to "learn to live" with the virus. Users of the app will receive a notification on [Tue 28 Mar 2023] telling them it is being discontinued. They will no longer receive alerts informing them when they have been in close contact with someone who has tested positive for COVID-19.

Dwindling usage meant the app was in danger of becoming defunct, as COVID-19 measures - such as free tests - were removed and vaccination take-up grew. However, the NHS app will continue to allow people to request a certificate proving their COVID-19 vaccination status as part of any requirements for international travel.

After the first wave of cases in spring 2020, the government pivoted to "contact tracing" to try to contain the spread of the virus without relying on mass restrictions.

The COVID-19 app was launched to let people check in at venues using a QR code, inform them what restrictions were in force based on their location, and keep track of how many days they had left to isolate if they had been in contact with someone who had tested positive.

It was rolled out in [August 2020], but mustered less than 300 000 downloads in the 1st month. As efforts grew to avoid imposing a 2nd national lockdown, the number of users shot up, reaching 16 million in [October 2020]. Adverts were rolled out telling the public: "Protect your loved ones. Get the app."

The latest figures show the app has been downloaded 31 681 000 times, of which just 103 885 downloads were this year [2023].

The app was blamed for a "pingdemic" when alerts telling users to self-isolate reached record levels - prompting concerns about shortages of workers and goods, as well as suggestions from some they might delete it.

The Liberal Democrat MP Layla Moran, chair of the cross-party parliamentary group on COVID-19, said: "Considering the government's chaotic, ineffective and eye-wateringly expensive track and trace app, it is essential that lessons are learned and that an effective app can be operational at a moment's notice if necessary. It is the responsibility of this government and those that follow to ensure that pandemic preparedness is never again treated as an afterthought."

The software code was unlikely to be thrown away, meaning the app could be reactivated in the event it was needed again, said Dr. Edgar Whitley, a reader in information systems at the London School of Economics.

While the COVID-19 contact-tracing app was groundbreaking and helped raise awareness of the virus, the "many false alarms and errors discouraged the users and raised ethical concerns about the use of the collected data", said Prof. Daniela Romano, the director of the Institute of Artificial Intelligence at De Montfort University.

[Byline: Aubrey Allegretti]

Communicated by:

ProMED

[B] The Times switches to CDC COVID-19 data, ending daily collection

Date: Tue 22 Mar 2023

Source: The New York Times [edited, abridged]

https://www.nytimes.com/2023/03/22/us/covid-data-cdc.html

After more than 3 years of daily reporting on the number of COVID-19 cases and deaths in every county in the United States, The New York Times is ending its COVID-19 data-gathering operation. The Times will continue to publish its COVID-19 tracking pages for the United States, only now they will be based on the latest information available from the federal government, not the Times's data set.

The tracking pages will still show data about hospital patients with COVID-19; reported cases and tests; and how many people have died from the virus. Data on vaccination rates and comparisons between vaccinated and unvaccinated populations will also remain.

A new interactive county map will show local levels of COVID-19 from the Centers for Disease Control and Prevention [CDC], which combine case and hospitalization data to determine the current impact of the virus on communities.

The data will be updated weekly instead of daily, and charts will include historical revisions as reported by the CDC.

[Byline: Wilson Andrews & Lisa Waananen Jones]

--

Communicated by:

ProMED

[Roughly around the time vaccinations started to become widely available in 2021 there was much talk of whether we were nearing the end of the pandemic, or rather the end of the beginning? Comparisons were made to the the various flu pandemics and how our penchant for optimism made too many want it to be over when the end was nowhere in sight. Time will tell whether we are truly near the end of COVID-19, or whether it adopts a more influenza-like model complete with seasonal spikes punctuated by broader regional or global epidemics when new variants emerge. If history is any lesson, we're still very much at the beginning, and maybe not even the end of the beginning...with testing and surveillance activities slowing down dramatically will we know? - Mod.JHI

[3] Increased SARS-CoV-2 sero prevalence and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness among HCWs through 2020-2022 in a Japanese medical center and spread without awareness an

Date: Mon 27 Mar 2023

Source: Scientific Report [edited]

https://www.nature.com/articles/s41598-023-32193-4

Citation: Kanamori R, Yan Y, Ito K, et al. Increased SARS-CoV-2 seroprevalence and spread of infection without awareness among healthcare workers through 2020-2022 in a Japanese medical center. Scientific Report 13, 4941 (2023)

.....

Abstract

Despite Japan's high vaccination coverage, daily numbers of new COVID-19 cases have been high. However, studies on the seroprevalence among Japanese people and the causative factors for rapid spread have remained limited. In this study, we aimed to examine the seroprevalence and associated factors in healthcare workers (HCWs) of a medical center in Tokyo using blood samples drawn at annual check-ups from 2020 to 2022. We found that of the 3788 HCWs in 2022 (by mid-June 2022), 669 were seropositive for N-specific antibodies (tested by Roche Elecsys Anti-SARS-CoV-2 assay); the seroprevalence surged from 0.3% in 2020 and 1.6% in 2021 to 17.7% in 2022. Notably, our study found 325 (48.6%; 325/669) cases were infected without awareness. Among those with a previously PCR-confirmed SARS-CoV-2 infection during the past 3 years, 79% (282/357) were found after January 2022, after the Omicron variant was first detected in Tokyo at the end of 2021. This study indicates the fast spread of the SARS-CoV-2 among HCWs during the Omicron surge in Japan. The high percentage of infection without awareness may be a key driving factor causing rapid person-to-person transmission, as shown in this medical center with high vaccination coverage and strict infection control measures.

--

Communicated by:

ProMED

[4] Researchers find New York City rats carry the COVID-19 virus

Date: Mon 27 Mar 2023 Source: Sci Tech Daily [edited]

https://scitechdaily.com/warning-researchers-find-new-york-city-rats-carry-the-COVID-19-virus/

A new study has demonstrated that rats are susceptible to infection with Alpha, Delta, and Omicron variants of SARS-CoV-2, the virus that causes COVID-19. Moreover, wild rats in the New York City municipal sewer systems and elsewhere in the city have been exposed to SARS-CoV-2. The study was published recently in mBio, an open-access journal of the American Society for Microbiology.

"Our findings highlight the need for further monitoring of SARS-CoV-2 in rat populations for potential 2ary zoonotic transmission to humans," said study principal investigator Henry Wan, Ph.D., Professor and Director of the Center for Influenza and Emerging Infectious Diseases at the University of Missouri. "Overall, our work in this space shows that animals can play a role in pandemics that impact humans, and it's important that we continue to increase our understanding so we can protect both human and animal health."

Rats are widely distributed in urban communities in the United States. For example, New York City alone has approximately 8 million wild rats. These wild rats have ample opportunities to interact with humans. Two previous studies suggested that rats in Asia (Hong Kong) and Europe (Belgium) were exposed to SARS-CoV-2; however, it is unknown which SARS-CoV-2 variant these rats were exposed to in both studies.

In the new study, the researchers set out to determine whether the SARS-CoV-2 virus in humans has been transmitted to the rat population in urban areas of the United States, specifically New York City, and if so, which SARS-CoV-2 variant caused those infections. The researchers also set out to determine whether (and which) SARS-CoV-2 variants in NYC can cause infections in rats.

"In Fall of 2021, U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) sampled Norway rats (Rattus norvegicus) in New York City to look for evidence of SARS-CoV-2 infection," said study coauthor Tom DeLiberto, D.V.M., Ph.D., SARS-CoV-2 Coordinator at USDA APHIS Wildlife Services. "Two trapping efforts were conducted during September and November with permission from the NYC Department of Parks and Recreation in and around locations surrounding wastewater systems. Most of the rats were trapped in city parks within Brooklyn, although some were captured near buildings outside of park boundaries."

Biologists collected and processed samples from 79 rats for virological studies and genomic sequencing. The researchers found that the rats were exposed to SARS-CoV-2 and showed a possible link to the viruses that were circulating in humans during the early stages of the COVID-19 pandemic. Specifically, 13 of 79 rats (16.5%) tested positive. "To the best of our knowledge, this is one of the first studies to show SARS-CoV-2 variants can cause infections in the wild rat populations in a major U.S. urban area," Dr. Wan said.

To further investigate rat susceptibility to SARS-CoV-2 variants, the researchers conducted a virus challenge study and showed that Alpha, Delta and Omicron variants (variants found in humans) can cause infections in rats (wild-type Sprague Dawley rats), including high replication levels in the upper and lower respiratory tracts and induction of both innate and adaptive immune responses. Susceptibility to infection varied by type of variant.

"Our findings highlight the need for further monitoring of SARS-CoV-2 in rat populations to determine if the virus is circulating in the animals and evolving into new strains that could pose a risk to humans," Dr. Wan said. "SARS-CoV-2 virus presents a typical one-health challenge which requires collaborative, multisectoral and transdisciplinary approaches to fully understand such challenges."

Reference: "SARS-CoV-2 Exposure in Norway Rats (Rattus norvegicus) from New York City" Wang Y, Lenoch J, Kohler D, et al. 9 Mar 2023, mBio.

03.04.23, 12:35

Communicated by ProMFD

[5] COVID-19 infant hospitalizations reduced by a 3rd maternal vaccine dose during pregnancy

Date: Mon 27 Mar 2023

Source: News Medical Net [abridged, edited]

https://www.news-medical.net/news/20230327/COVID-19-infant-hospitalizations-reduced-by-a-3rd-maternal-vaccine-dose-during-pregnancy.aspx

In a recent study published in the journal Nature Medicine, researchers in Israel investigated the effects of the recommended 3rd dose (booster) of maternal BNT162b2 messenger ribonucleic acid (mRNA) coronavirus disease 2019 (COVID-19) vaccine during pregnancy on COVID-19-related hospitalization rates among infants.

In the present national-level cohort study, researchers evaluated the maternal triple dose versus double dose COVID-19 BNT162b2 mRNA vaccine effectiveness (VE) against hospitalizations associated with COVID-19 in infants.

The study comprised live-born infants birthed in Israel between [24 Aug 2021] and [15 Mar 2022]. The VE estimates were separately assessed for the periods of SARS-CoV-2 Delta variant of concern (VOC) and Omicron VOC predominance.

Cox proportional hazards-type regression modeling was performed, and the hazard ratios (HRs) were calculated for infant COVID-19-associated hospital admissions based on the status of maternal SARS-CoV-2 vaccination during delivery.

The team included pregnant women who received the booster dose ≥5 months after the 2nd COVID-19 vaccine dose. The period between [24 Aug 2021], and [1 Dec 2021], was considered the Delta VOC dominance period, and between [15 Dec 2021], and [15 Mar 2022], it was considered the Omicron dominance period.

Results

A total of 22 231 (46%), 13 364 (27%), and 13 273 (27%) infants belonged to 3-dose COVID-19 vaccinees, 2-dose COVID-19 vaccinees, and non-COVID-19 vaccinees, respectively. In total, 352 infants (0.7%) of <3.0 months of age were admitted in association with COVID-19 during the study period.

Among the 48 868 infants with live births analyzed, COVID-19-associated hospitalization rates were 0.70%, 0.60%, and 0.40% among unvaccinated, double-dose, and triple-dose vaccinees, respectively.

Compared to 2-dose COVID-19 BNT162b2 VE, the booster dose VE in lowering infant SARS-CoV-2-associated hospital admission risks was 53% for the initial 120 days of life. Stratifying by gender and gestational age vielded similar VE estimates. Greater immune protection was related to shorter durations between COVID-19 vaccinations and infant delivery.

Among 263 infants with COVID-19-associated hospitalizations, 6% (n=15) had preterm births, 8% (n=20) had neonatal intensive care unit (NICU) hospitalizations at delivery, and 6% (n=15) had congenital abnormalities in the heart, brain, skeletal muscles, and the urinary tract.

A median value of 47 days was observed for the age of infants at hospitalization. The hospitalization duration was 1.8 days for infants of 3-dose vaccines, 2.3 days for 2-dose vaccines, and 2.4 days for infants of non-vaccinees.

Out of pediatric ICU (PICU)-admitted infants, 2 belonged to 3-dose vaccinees, 3 belonged to 2-dose vaccines, and 5 belonged to unvaccinated mothers. No COVID-19-associated infant mortality was reported in the study period. The HR of 3-dose vs. 2-dose COVID-19 vaccine administrations against infant COVID-19-associated hospitalizations was 0.5.

The 3rd vaccine dose more effectively prevented infant COVID-19-associated hospitalizations, at the initial 90 days following delivery, with HR values of 0.4, 0.5, and 0.5 for the initial 29 days, 30. days to 59 days, and 60 days to 89 days, respectively.

During Delta VOC predominance, 16 infants (of 23 865 infants) had COVID-19-associated hospitalizations, among whom, none belonged to 3-dose vaccinees, four belonged to 2-dose vaccinees, and 12 infants belonged to non-vaccinees, respectively.

During Omicron VOC predominance, 50 infants (of 20 893 infants) had COVID-19-associated hospitalizations, among whom 17, 19, and 14 belonged to 3-dose vaccinees, 2-dose vaccinees, and non-vaccinees, respectively.

The 3-dose vs. 2-dose VE could not be estimated during Delta VOC predominance due to the limited number of cases (none and 4 in the 3-dose and 2-dose groups, respectively) and COVID-19 BNT162b2 mRNA VE of 65.0% was observed during Omicron predominance.

Overall, the study findings showed that booster dose administration to pregnant women lowered infant COVID-19-associated hospitalizations during the initial 4 months post-delivery, encouraging maternal 3rd-dose vaccination to prevent COVID-19 severity outcomes in their infants.

Infant vaccine effects may be regulated by vertical transplacental antibody transfer via breastfeeding and lowered susceptibility among infants born to an immunologically protected mother against SARS-CoV-2. Updated, multivalent COVID-19 vaccine administration may improve anti-SARS-CoV-2 immunity.

Communicated by ProMED

[The full article from Lipschuetz, M. et al. can be accessed at Nature Medicine, "Maternal 3rd dose of BNT162b2 mRNA vaccine and risk of infant COVID-19 hospitalization". https://www.nature.com/articles/s41591-023-02270-2. - Mod.LWW]

[6] WHO: daily new cases reported (as of 21 Mar 2023)
Date: Tue 21 Mar 2023
Source: WHO [abridged, edited]
https://COVID19.who.int/table

03.04.23, 12:35

* Daily case reports as of 21 Mar 2023 18:06 CET

Surveillance

WHO region (no. countries/territories):

Total confirmed cases (new cases in last 24 hours) / Total deaths (new deaths in last 24 hours)

Western Pacific Region (35): 201 913 013 (0) / 408 070 (0)

European Region (62): 274 391 717 (28 191) / 2 203 052 (156)

South East Asia Region (11): 60 784 561 (1126) / 803 971 (5)

Eastern Mediterranean Region (21): 23 286 391 (1863) / 349 868 (22)

Region of the Americas (56): 191 185 511 (2770) / 2 939 388 (15)

African Region (50): 9 509 869 (0) / 175 315 (0)

Cases on an international conveyance: 764 (0) / 13 (0)

Grand Total: 761 071 826 (33 950) / 6 879 677 (198)

[According to the WHO COVID-19 weekly epidemiological report, over 3.7 million new cases and over 26 000 deaths were reported in the last 28 days (20 Feb to 19 Mar 2023), a decrease of 31% and 46%, respectively, compared to the previous 28 days (23 Jan to 19 Feb 2023). However, there are significant regional differences including increases in some regions. As of [19 Mar 2023], over 760 million confirmed cases and over 6.8 million deaths have been reported globally.

At the regional level, the number of newly reported 28-day cases increased across 3 of the 6 WHO regions: the Eastern Mediterranean Region (+89%), the South-East Asia Region (+70%), and the European Region (+9%); while cases decreased in 3 WHO regions: the Western Pacific Region (-58%), the African Region (-43%), and the Region of the Americas (-28%). The number of newly reported 28-day deaths decreased across 5 regions: the Western Pacific Region (-76%), the African Region (-57%), the Region of the Americas (-38%), the South-East Asia Region (-24%), and the European Region (-15%); while deaths increased in the Eastern Mediterranean Region (+68%). https://www.who.int/publications/m/item/weekly-epidemiological-update-on-COVID-19---22-march-2023. - Mod.LWW]

--

Communicated by

ProMED

[7] Global update: Worldometer (accessed 23 Mar 2023, 02:15 GMT)

Date: Thu 23 Mar 2023

Source: Worldometer [edited]

https://www.worldometers.info/coronavirus/#countries

Total number of reported cases: 682 891 877

Total number of reported deaths: 6 822 515

Number of newly confirmed cases in the past 7 days: 789 855

Number of newly reported deaths in the past 7 days: 6784

Communicated by

ProMED

[The 10 countries that reported more than 10 000 new cases in the week between 16 Mar 2023 and 22 Mar 2023 were: USA (301 363), Russia (69 941), South Korea (67 294), Brazil (59 163), France (50 580), Japan (35 807), Taiwan (33 418), Germany (30 046), UK (26 862), Chile (25 864), Italy (23 732), Austria (20 514), Belgium (18 083), Mexico (15 373), Poland (14 622), New Zealand (11 152). Daily and weekly case numbers reflect the size of COVID-19 epidemics and testing/reporting requirements in each country or territory. These may vary based on national or local responses and anti-epidemic measures in place during the reporting period. - Mod.LWW]

See Also

COVID-19 update (12): countries, variants, susceptibility, vaccines, WHO, global 20230321.8709066

COVID-19 update (11): country responses, complications, treatment, WHO, global 20230312.8708900

COVID-19 update (10): Hong Kong, XBB.1.5, Iran, UAE, bivalent vacc 20230308.8708776

COVID-19 update (09): XBB.1.5, vaccine, WHO 20230228.8708641

COVID-19 update (08): countries, immunity, vaccines, treatment, masks, WHO, global 20230219.8708482

COVID-19 update (07): countries, molnupiravir, vaccines, PACS, cockroach, WHO 20230212.8708331

COVID-19 update (06): USA AND CHINA TRACK CH.1.1, DEMOGRAPHICS, SYMPTOMS, PACS TRIALS, WHO 20230204.8708165

COVID-19 update (05): PHEIC continues, WHO 20230130.8708059

COVID-19 update (04): PHEIC, China, susp outbreaks, responses, vaccines, global 20230130.8708043

COVID-19 update (03): China, guidelines, vacc, immunity, sequelae, WHO 20230122.8707910

COVID-19 update (02): China, XBB.1.5, Hong Kong, mAb, pathogenesis, WHO, global 20230115.8707786

 $COVID-19\ update\ (O1): China, Hong\ Kong, XBB.1.5, PAHO, treatment, testing, WHO\ 20230107.8707667$

2022

COVID-19 update (193): surge, travel restrictions, screening, treatment, WHO 20221230.8707528

COVID-19 update (191): omicron BF.7, bivalent vaccines, China, WHO, global 20221224.8707437

COVID-19 update (190): China, Australia, vaccines, sequelae, WHO, global 20221219.8707306

COVID-19 update (189): mortality, mAb, intranasal vacc, NPIs, sequelae, WHO, global 20221209.8707146

 $COVID-19\ update\ (188): China, omicron\ BA.2.76, outdoor\ transmission\ 20221130.8706983$

COVID-19 update (187): boosters, omicron BQ.1.1, Asia, Australia, WHO, global 20221129.8706920

 $COVID-19\ update\ (185): chr.\ COVID,\ bladder,\ recovery,\ renal,\ deaths,\ WHO,\ global\ 20221111.8706665$

COVID-19 update (184): vaccination response, disparity, WHO, global 20221104.8706549

COVID-19 update (183): cardiac events, exercise, US deaths, boosters, WHO, global 20221028.8706414

COVID-19 update (182): frontline workers, life expectancy, subvariants, WHO, global 20221021.8706286

COVID-19 update (181): Africa vacc hesitancy, pre-eclampsia, boosters, nasal vacc, WHO, global 20221014.8706143

COVID-19 update (180): long COVID, neuropsy. illness, Paxlovid, subvariants, WHO 20221007.8706007

COVID-19 update (170): case severity, boosters, physical activity, WHO, global 20220825.8705236

COVID-19 update (160): vaccine rollout disparities, smell & taste, WHO, global 20220731.8704776

COVID-19 update (150): France, omicron 2nd gen variant, paxlovid, WHO, global 20220705.8704255

COVID-19 update (140): Thailand, human to cat to human transmission 20220612.8703819

COVID-19 update (130): surveill., cardiac eff., long COVID subtypes, WHO, global 20220601.8703606

 $COVID-19\ update\ (120): N\ Korea, pandemic\ exit, youth\ vaccine,\ US\ deaths,\ WHO\ 20220518.8703327$

 $COVID-19\ update\ (110): mutations, mental\ health,\ China,\ S\ Africa,\ Paxlovid,\ WHO\ 20220505.8703018$

COVID-19 update (100): vacc. intervals, deaths, long COVID, subvariants, global 20220420.8702717

COVID-19 update (90): strategy, 2nd booster, WHO 20220407.8702454

COVID-19 update (80): animal, USA, deer, transmission 20220325.8702212

COVID-19 update (70): case count, UK, BA.2, USA, WHO, global 20220312.8701940

COVID-19 update (60): animal, China, origin, research 20220227

COVID-19 update (50): Hong Kong, estrogen risk, maternal vaccine benefits, WHO 20220217.8701501

COVID-19 update (40): Denmark, rosemary, pregnancy, stroke, WHO 20220205.8701276

COVID-19 update (30): variants in immuno-comp., stability, endemic, WHO 20220126.8701074

COVID-19 update (20): Africa vacc., Taiwan, waning immunity, persistence, global 20220117.8700915

COVID-19 update (10): animal, omicron origin statement, OIE 20220110.8700763

 ${\tt COVID-19}\ update\ (01): omicron\ severity\ \&\ changes,\ Germany,\ T-cell\ reactivity\ 20220101.8700616$ 2021

COVID-19 update (452): rapid test, omicron, Ab neutralization, school, WHO 20211230.8700597

COVID-19 update (451): animal, USA, wild deer 20211230.8700589

COVID-19 update (450): maternal Abs, CDC isolation guidance, WHO 20211230.8700575

COVID-19 update (400): animal, sheep, research, experimental infection 20211121.8699806

COVID-19 update (350): boosters, deaths, cases, vaccines, WHO 20211014.8699041

COVID-19 update (300): Norway, myocarditis, schools, new variant C.1.2, WHO 20210901.8638460

COVID-19 update (200): animal, China, origin 20210608.8433657

COVID-19 update (100): antibodies, vaccine, Thailand, Cambodia, WHO, global 20210316.8250009

COVID-19 update (50): UK vaccine study, Brazil reinfection, WHO 20210205.8167161

COVID-19 update (01): variants, vaccine, Thailand, global, WHO 20210101.80629382020 2020

Undiagnosed pediatric inflammatory syndrome (06): COVID-19, heart, young adults 20200522.7364506

COVID-19 update (562): viral load, UK vacc dose, ECDC, WHO 20201231.8061525

COVID-19 update (01): China, global, EVZD, reporting criteria, WHO 20200213.6984084

Novel coronavirus (42): China, global, COVID-19, SARS-CoV-2, WHO 20200211.6979942

Novel coronavirus (01): China (HU) WHO, phylogenetic tree 20200112.6885385

 $Undiagnosed\ pneumonia:\ China\ (HU)\ (10):\ genome\ available,\ Hong\ Kong\ surveill.\ 20200111.6883998$

Undiagnosed pneumonia: China (01): (HU) wildlife sales, market closed, RFI 20200102.6866757 2019

Undiagnosed pneumonia: China (HU): RFI 20191230.686415

and other items in the archives $% \left(1\right) =\left(1\right) \left(1\right)$

.....cs/lww/ao/jh



Support Privacy Policy Terms & Conditions