

# PANDEMIC CONTROL

Persevering in our mission to combat the pandemic in fulfilment of our pivotal role

In the face of the sudden COVID-19, China Unicom quickly responded with respect to pandemic prevention and communication assurance. It emphasised on both pandemic prevention and business operations to ensure smooth network communication, sound service and effective assurance. It fully leveraged its new digital technology edges to support precise pandemic prevention and the resumption of work, production and schooling, thereby contributing to the winning of the battle against COVID-19 and fully fulfilling its role as a key pillar of a great nation.



## 🏠 GOING ALL OUT TO FIGHT THE PANDEMIC

Facing the major test of pandemic prevention and control, China Unicom quickly established a prevention and control system by strictly enforcing the prevention and control responsibilities of units at all levels. Taking into account actual circumstances, the Company dynamically formulated various prevention and control measures. We went all out to leverage our edges to ensure communication security and network stability while protecting the safety of our employees, thus demonstrating the responsibility of a central state-owned enterprise.

### 📡 Quickly Establishing a Prevention and Control System

The pandemic is an order, and prevention and control are our responsibility. China Unicom took the initiative and acted quickly, carefully formulated work plans and emergency plans, and formed a prevention and control system with joint and strict measures both inside and outside the Company.

A leading team for pandemic prevention and control was established, which consisted of five sub-groups, namely general coordination group, medical security group, humanistic care group, building security group and legal support group. A pandemic infection report system was established.

An overseas pandemic prevention and control working team was established to carry out pandemic prevention and control supervision work for overseas institutions according to local actual conditions.

Since the outbreak of the pandemic, the Company's Pandemic Prevention Office held over 60 meetings and released 48 documents to make careful arrangements for formulating pandemic prevention measures, dispatching pandemic prevention materials, key communication assurance, personnel safety and treatment of infected employees, etc.

The Company pioneered a one-on-one material support model among central state-owned enterprises to strengthen the allocation of pandemic prevention materials across provinces, effectively solving the problem of severe shortage of medical supplies in severely affected areas.

China Unicom Global Limited ("CUG") sourced a total of 1.1 million masks and other materials for domestic pandemic prevention while such materials were in shortage. CUG also actively procured materials to support overseas pandemic prevention when the pandemic was raging overseas. Its fight against the pandemic has never stopped.



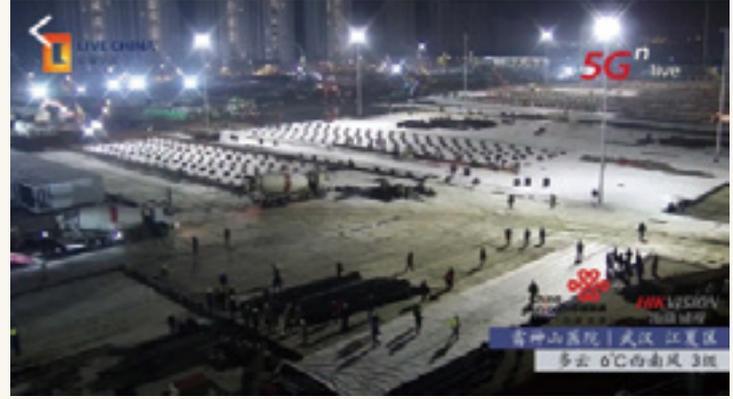
CUG was inspecting and transporting pandemic prevention materials

### 📡 Ensuring Smooth Communication Services

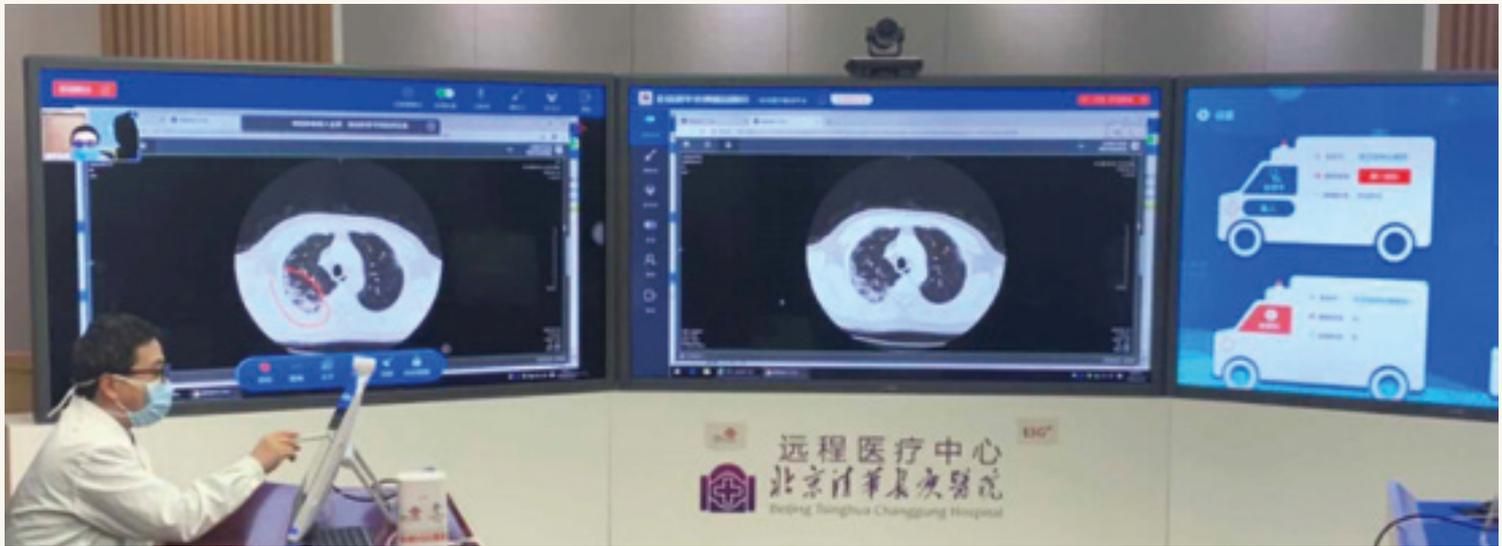
As a state-owned telecommunications company, China Unicom leveraged its network advantages, insisted on a holistic thinking, and actively mobilised its branch companies and subsidiaries to participate in the communication assurance for local pandemic prevention and control, setting up an information transmission "lifeline" for fighting the pandemic.

- Focusing on VIP customers such as pandemic prevention hospitals and healthcare authorities, 6,171 dedicated lines were installed/expanded, and 71,394 dedicated lines were specially protected to achieve zero failure.
- Approximately 300 million users in 29 provinces were reprieved from suspension due to arrears in the emergency period. Focusing on assuring communications for medical personnel, the Company offered a total of RMB9.7 billion in phone tariff discounts or giveaways to more than 20,000 medical personnel. In addition, the Company gave away free data and voice allowance to more than 130,000 medical personnel who were the Company's customers, equivalent to approximately RMB9.04 million.
- Distributed nearly ten billion of public service messages for pandemic prevention and control, and provided an integrated solution of "Callers' ID/SMS on hang-up" for provincial health commissions and CDCs.
- Strongly promoted online service sign-up and guided users to sign up most services without leaving home. Guided users to repair faults remotely to avoid potential cross-infection caused by on-site services.

In early 2020, China Unicom Hubei branch kept in mind that “people’s interests are above everything else”, and went all out to fight the pandemic. From the network coverage of Huoshenshan Hospital and Leishenshan Hospital to the network assurance of tens of designated hospitals, from the dedicated line reassurance of medical institutions across the province to the network coverage of more than 20 shelter hospitals, from the 8-hour rapid network expansion for nucleic acid testing to the emergency repair of networks in bad weather, China Unicom Hubei branch dispatched assurance personnel for a total of more than 20,000 times and inspected more than 30,000 kilometers of communication lines, ensuring the smooth operation of the province’s network and making important contributions to the fight against the pandemic.



China Unicom’s Internet Pioneer Team conducting construction work at Leishenshan Hospital and “Cloud Supervision” live broadcast



Beijing Tsinghua Changgung Hospital connected with Leishenshan Hospital for 5G medical consultation

With an “indomitable” lofty ambition, China Unicom Guangdong Zhaoqing branch rushed into the battlefield of fighting the pandemic, and quickly installed three 5G base station sites for municipal health bureau and designated hospitals in 5 days. It sent a total of 20,767,000 public service messages for pandemic prevention and control in 57 occasions and offered phone tariff discounts to pandemic prevention personnel, becoming the “most beautiful servant” on the front line of pandemic control.



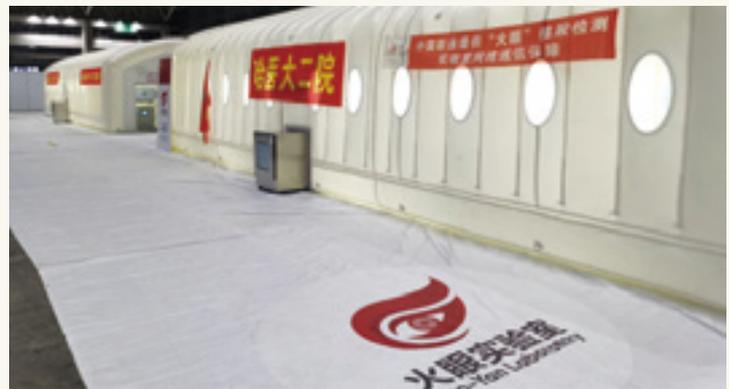
In July 2020, in the face of the worsening COVID-19 pandemic in Xinjiang, China Unicom Xinjiang branch acted quickly, made careful arrangements, and took various measures to prevent and control the pandemic. It deployed communication assurance personnel for 87 times and assurance vehicles for 56 times, inspected 38 base station sites and repaired 63 faults. It maintained 7x24 uninterrupted manual or self-service hotline services, and established a remote expert support team, providing solid communication assurance for the pandemic prevention and control.

As 2021 just began, a new round of COVID-19 invaded the land of Northern China, and the pandemic prevention and control in Hebei Province entered a wartime state. China Unicom Hebei branch immediately launched an emergency plan, coordinated actions at provincial and city levels, and fully participated in the fight against the pandemic. China Unicom Shijiazhuang branch strengthened the dispatch of emergency support personnel and rescue vehicles. After 15 hours of continuous hard work, it turned on the first 5G base station in a centralised isolation point to support the pandemic prevention and control. China Unicom Xingtai branch actively assisted the local government in fighting the pandemic, went all out to strengthen its video surveillance network, and supported the testing and installation of video surveillance equipment in a total of 358 quarantine points in the urban area and 10 counties, making outstanding contributions to winning the battle against the pandemic.



China Unicom Hebei branch spared no effort to ensure the communication network construction at the centralised isolation points in Zhengding

In mid-January 2021, the COVID-19 pandemic in Harbin suddenly worsened. China Unicom Heilongjiang branch shouldered its responsibilities and missions, and took united actions to tackle challenges around the clock to demonstrate “China Unicom speed” and “China Unicom responsibility”. It completed in the shortest time the communication assurance for Huo-Yan Laboratory, and assisted the Harbin government in precise pandemic control with practical actions, ensuring the communication “lifeline” of the people in the city.



China Unicom Heilongjiang branch completed the communication assurance for Huo-Yan Laboratory

## EMPOWERING RESUMPTION OF WORK AND PRODUCTION BY TECHNOLOGY

China Unicom took full advantage of new digital technologies such as cloud computing, Big Data, Internet of Things (IoT), artificial intelligence (AI), etc. to provide smart mobile products for pandemic monitoring, data platforms for pandemic prevention and control and innovative solutions, etc., thereby providing smart protection for the resumption of work, production and schooling.

### Assisting in Precise Pandemic Prevention with Digital Intelligence

China Unicom capitalised on the multi-source, massive and integrated advantages of Big Data to empower “predictable” pandemic prevention and control, and provide timely decision-making support for all parties in the society, facilitating scientific and precise pandemic prevention and control.

- With 10 self-developed platforms for population flow, pandemic assessment, AI pandemic compliance monitoring, etc., the Company provided more than 20,000 pandemic prevention and control analyses and reports on resumption of work and production for more than 20 national ministries and commissions and more than 300 local pandemic prevention and control departments. Travel history codes were used for 1.4 billion times.



China Unicom's Big Data “healthy U code”

- The Company transparently visualised data through products and services such as “community risk prediction”, “travel history query” and “healthy U-code”, letting the public know nearby risks at any time to avoid panic.

## Supporting Resumption of Work and Production with Technology

Facing the dual requirements of routine pandemic prevention and control and orderly resumption of work and production, China Unicom innovatively developed many digital applications such as Big Data platforms for resumption of work and production, cloud video conferencing, distance education and AI pandemic prevention monitoring based on key technologies such as network + Big Data + AI. Such digital applications facilitated the full resumption of work, production and schooling, and proactively served the social and economic development.

Developing Big Data platforms for resumption of work and production

This platform can effectively display the resumption of work and production in prefecture-level cities and key regions and can provide population datasets and reports on resumption of work and production, so as to provide the government with a basis for decision-making and promote the resumption of work and production in an orderly manner.

Promoting cloud video conferencing system

Through R&D and promotion of cloud video conferencing system, the Company facilitated telecommuting, served more than 10,000 institutions and departments in 31 provinces, and supported 25,000 video conferences.

Launching WO Family online classroom solution

The Company actively catered for the Ministry of Education's requirement of "Continuous learning during suspension of classes", and launched an innovative comprehensive solution called "WO Family Online Classroom" for all primary and secondary schools.

Developing AI-assisted pandemic prevention products

The pandemic compliance monitoring system developed by the Company using AI capabilities was widely used in campuses, hospitals, communities and other scenarios, and made positive contributions to the country's coordination of pandemic prevention and control and the resumption of work and production.

Assist SMEs to raise capital and weather the pandemic

Since the outbreak of COVID-19, small and medium-sized enterprises (SMEs) faced difficulties in production and operation. To this end, China Unicom created a supply chain finance platform to channel bank funds to credit loans of SMEs, thereby improving the efficiency of the financial system in supporting the private economy, building an interactive ecosystem of "government + banks + enterprises" and promoting the sustainable and healthy development of SMEs.



China Unicom's Big Data platform for resumption of work and production



China Unicom's "Continuous learning during suspension of classes" cloud courses

Unicom Big Data Co., Ltd. strived to promote the integration of technological innovation and pandemic control use cases, greatly improved the efficiency of pandemic control through its powerful technologies and put into actions the wisdom of scientific prevention and control on the front line. In September 2020, the company was awarded the honorary title of National Advanced Group in Fighting COVID-19.



In the face of the pandemic, China Unicom Zhejiang Jiaxing branch actively responded, and deployed more than 90 sets of thermal imaging body temperature monitoring equipment in production and living places such as wet markets, schools, hospitals, and enterprises, building the “first line of defense” for pandemic prevention and control. Building on its high-quality 5G network, the branch developed a local version of the “WO code” health ETC verification platform, and received a total of 2.083 million QR code scans. The branch also developed an online application system for enterprises to resume production, which effectively assisted 3,715 companies in Tongxiang to apply for resumption of production through “online application + on-site solution”.



Body temperature measurement solution applied in Dushangang Town



A patrol robot with 5G+ infrared body temperature detection

China Unicom Guangxi branch provided multi-scenario and intelligent pandemic control services using Big Data technology. The branch launched China Unicom’s 5G thermal imaging body temperature measurement solution, and provided 118 entities with such solution, to achieve long-distance, contactless, multi-target and high-precision body temperature screening. The branch also promoted China Unicom’s DingTalk Cloud Classroom among millions of households, and quickly built a “Classroom in the Air” network platform. The number of registered students of DingTalk Cloud Classroom reached 91,200, and the number of average daily active users reached 15,300, supporting “continuous teaching and learning during suspension of classes”.

## CARING FOR THE LIVES AND HEALTH OF EMPLOYEES

China Unicom always puts the safety and health of its employees first. Due to early deployment, quick actions and strict measures in fighting the pandemic, the pandemic prevention and control situation of the Company was stable, maintaining a very low infection rate and zero death among employees.

- For employees with underage children in need of childcare and pregnant female employees, the Company adopted accommodative measures such as home office and flexible working hours.
- The Company took measures to protect the well-being of employees on duty, such as strictly controlling the crowdedness in workplaces, and providing employees with pandemic prevention materials such as masks and disinfectants.
- The Company endeavoured in the pandemic prevention and control for overseas employees and their family members and provided them with pandemic prevention materials and online psychological care.
- The Company offered various forms of condolences and services for its employees and their family members quarantined or stranded in the pandemic areas, including delivering food to their homes, regular video home visits, applying for mutual aid, handling critical illness claims, etc., to effectively solve the most immediate and practical problems of its employees.

With the courage to assume responsibility, the wisdom of scientific prevention and control, the strategy of overall planning and the capability of effective implementation, China Unicom Shandong branch adopted a variety of solid and specific measures such as staggered rush hour arrival, health monitoring, heart-warming paper towels and regular disinfections to facilitate the resumption of work and production, demonstrating its meticulous care for the health of its employees, and accumulating strength for winning the fight against the pandemic.



Staggered rush hour arrival of employees



Comprehensive disinfection in business outlets