

Taiwan's COVID-19 containment strategy utilizing innovative technology and universal health coverage

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Two years into the COVID-19 pandemic, more than 510 million confirmed cases and more than 6.25 million deaths have been reported around the world. As nations continue to battle the pandemic, Taiwan's achievements have been widely recognized. As of May 10, 2022, about 390,000 confirmed cases and 931 deaths had been reported in Taiwan, which has a population of 23.5 million. And thanks to a joint effort by the government and the people, Taiwan's economic growth rate for 2021 reached 6.45 percent.

Universal health coverage

Taiwan's National Health Insurance (NHI) system, which was launched in 1995, has played an important role in the fight against the pandemic. The NHI system provides comprehensive and high-quality health services, achieving universal (99.9 percent) coverage. Taiwan's robust healthcare and NHI systems have safeguarded the people and ensured social stability during the COVID-19 pandemic. Furthermore, the NHI's comprehensive database and other up-to-date information systems have been critical in ensuring the successful application of digital technology for disease prevention. Taiwan's healthcare system was ranked second in the world in 2021 by *CEOWorld*. In Numbeo's annual survey, Taiwan was ranked first among 95 countries surveyed in the Health Care Index category for 2021.

Use of technology for epidemic prevention

During the early stages of the COVID-19 pandemic in February 2020, to reduce the risk of community transmission, the government implemented the Quarantine System for Entry by integrating NHI, immigration, and customs databases to allow for big data analysis. Data was introduced to the Digital Fencing Tracking System, which used the positioning system on mobile phones to monitor the whereabouts of people under home quarantine or isolation. Moreover, to ensure privacy, personal data captured was stored for a maximum of 28 days and then deleted.

To ensure that all residents would enjoy equitable access to medical masks as demand increased, people were required to use their NHI card to purchase masks under the Name-based Mask Distribution System, helping to prevent an imbalance in supply and demand. While protecting personal data, a new function for querying the travel and contact history of patients was added to the NHI MediCloud System to effectively integrate health data. This helped frontline medical personnel judge infection risks and take relevant infection control measures.

Vaccinations and digital certificates

To digitalize health care services, the NHI Express App was launched. It offers such features as vaccination appointments, personal health data, medical records, COVID-19 vaccination records, and test results. Taiwan joined the EU Digital COVID Certificate program at the end of 2021 and allowed citizens to apply for digital vaccination certificates and test certificates. This program was one of the first global standards developed. It was adopted by many states and was the first one to be applied in for international travel. Taiwan's people can enter 64 countries, including EU member states, with such certificates.

Electronic medical records and telemedicine

Taiwan has been building health information infrastructure since 2010, such as the electronic medical records (EMR) exchange system. Since May 2021, Taiwan has expanded its telemedicine services in healthcare institutions and included such services into NHI coverage as a means of reducing the risk of cluster infections at such institutions. Using the NHI MediCloud and EMR systems, zero-contact telemedicine allows medical personnel to obtain patients' medical records and offer people in remote areas appropriate and comprehensive services, in turn helping to realize the World Health Organization (WHO) goal of health for all.

New Taiwan Model

Taiwan was able to contain the pandemic while having people lead normal lives and achieving positive economic growth through the precise use of technology, information transparency, strict border controls, and accurate screening and case investigation. However, with the worldwide spread of the Omicron variant since the end of 2021, community transmission also began to increase in Taiwan. The variant appears to be much more contagious but to cause mild or no symptoms. Trying to block the transmission of every single case would be a vain effort that would greatly affect people's livelihoods. The government has therefore chosen to aim at eliminating severe cases, managing mild cases, minimizing overall impacts, and caring for moderate and severe cases since April 2022. This new Taiwan Model seeks to allow people to lead normal lives while active epidemic prevention measures remain in place and the country is steadily opening up.

Strengthening people's resilience

With the introduction of rapid antigen test kits, Taiwan has shortened quarantines and reduced control measures, requiring confirmed cases to notify their close contacts to undergo home isolation and using electronic contact notification during the process. As the demand for rapid tests increases, the government has requisitioned a fixed amount and adopted a name-based rationing scheme, distributing tests to NHI-contracted pharmacies for the public to purchase using their NHI cards.

Preserving healthcare capacity

Taiwan has adopted a triage approach, having milder COVID-19 cases undergo home care and reserving hospital treatment for members of high-risk groups, such as moderate and severe cases and the elderly. During home care, people can access emergency medical consultations through mobile apps. A network of pharmacists and community pharmacies has been put together to provide consultations and deliver medicines. As of the end of April 2022, about 80 percent of the people in Taiwan had received a primary series of the COVID-19 vaccine, while 60 percent had received a booster dose.

Taiwan can help, and Taiwan is helping

The world today continues to face challenges of the pandemic, vaccine supply, and the postpandemic recovery. Countries should work together and prepare for possible future pandemics. Taiwan is an indispensable partner in ensuring a successful postpandemic recovery. To contain the pandemic, Taiwan has continued to cooperate with other countries on the research and development of COVID-19 vaccines and drugs and has donated medical supplies, such as medical masks and medicines, to countries in need. This has demonstrated that Taiwan can help, and Taiwan is helping.

The 75th World Health Assembly (WHA) will be held in May. For the past five years, Taiwan has not been invited to participate in the WHA. To ensure that Taiwan is not left behind and there is no coverage gap in global health, Taiwan seeks to participate in the WHA this year in a professional and pragmatic manner, so that it can make contributions as part of the global effort to realize WHO's vision of a seamless global disease prevention network.

We urge WHO and related parties to support Taiwan's inclusion in WHO and allow it to fully participate in WHO meetings, mechanisms, and activities. Taiwan will continue to work with the rest of the world to ensure that all enjoy the fundamental human right to health as stipulated in the WHO Constitution. In the spirit of the United Nations' 2030 Sustainable Development Goals, no one should be left behind.

第 75 屆世界衛生大會部長專文
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前言

新冠肺炎(COVID-19)疫情兩年多來持續肆虐全球，全世界已有 5 億 1 千萬人感染，逾 625 萬人喪失寶貴生命。當世界各國忙於因應疫情所帶來的衝擊時，臺灣的防疫成就，受到世界的矚目和肯定。臺灣 2,350 萬人截至 2022 年 5 月 10 日止，僅近 39 萬多例確診，931 例死亡病例，2021 年經濟成長率達 6.45%，這些都是政府與人民於疫情期間共同努力創造的經濟成果。

全民健康覆蓋

全民健康保險在此抗疫期間發揮其極大的功能，臺灣自 1995 年開辦全民健康保險至今已屆滿 27 年；全民健康保險不僅提供全面且有品質的健康服務，健保覆蓋率高達 99.9%，已達成全民健康覆蓋。臺灣完善的公共衛生體系及全民健康保險不僅提供民眾安心的保障及社會穩定的後盾，全民健保完整的資料庫及與時俱進的資訊系統，更是臺灣成功運用數位科技防疫的重要關鍵。根據全球資料庫網站(Numbeo)2021 年發布的全球健康照護指標(Health Care Index)，臺灣在 95 個國家中排名第一；臺灣的健康照護系統也被 CEOWORLD 雜誌評為 2021 年全球次優。

科技防疫

2020 年 2 月，在新冠肺炎大流行初期時，為降低社區傳染風險，政府建置「入境檢疫系統」，藉由整合全民健康保險數據庫、移民署和海關數據庫，創建大數據進行分析，並結合後端「電子圍籬智慧監控系統」，透過手機定位方式掌握行蹤，以確保居家隔離及檢疫措施之落實；為確保個資保護，民眾個人資料於疫情調查後即銷毀，最多存放 28 天。

當口罩需求量遽增時，「口罩實名制」則運用健保卡做為口罩購買憑證，並管控民眾購買口罩數量以免供需失衡，以確保每個居民都有口罩。「健保醫療資訊雲端查詢系統(NHI MediCloud)」，在不涉及個資的前提下，新增就醫民眾旅遊史與接觸史查詢功能，協助前線醫療人員判斷疾病風險與採取相關感染管制措施，有效整合病患醫療資訊。

疫苗接種及數位證明

為發展健保服務數位化，臺灣研發全民健保快易通 APP，可提供預約疫苗接種、個人健康資料、就醫紀錄及 COVID-19 疫苗接種/病毒檢測結果查詢功能。另外，臺灣於 2021 年底正式加入「歐盟數位新冠證明」系統，並開放國人申請「疫苗接種數位證明」或「檢驗結果數位證明」。歐盟數位新冠證明為世界性標準之一，國際成員國多且最早用於國際旅行，臺灣民眾持此證明可入境歐盟等 64 個國家。

電子病歷及遠距醫療

臺灣自 2010 年起積極推動電子病歷交換等醫療資訊基礎建

設，自 2021 年 5 月起，政府將遠距醫療納入全民健保給付，擴大開設視訊門診，透過零接觸診療，降低感染及群聚風險，醫療人員也可使用「健保醫療資訊雲端查詢系統(NHI MediCloud)」和電子病歷（EMR）系統，取得病患之醫療記錄。遠距醫療擴大健康照護服務之覆蓋面，使偏遠地區居民也能夠獲得適切及完善的醫療照護，落實世界衛生組織全民均健之目標。

新臺灣模式

臺灣過往以精準的科技防疫模式，以邊境風險嚴管及精準篩檢疫調等為主軸，資訊的公開透明，成功圍堵疫情入侵，國民生活能如常運作，並有正向的經濟增長。然而 Omicron 變種病毒株自 2021 年末開始席捲全球，臺灣也隨著其他國家之後，進入廣泛社區流行狀態。由於這株病毒的傳播力強，造成的感染多為輕症或無症狀，如依循過去針對每個案例進行防堵，將徒勞無功且嚴重影響民眾生活。自 2022 年 4 月起，政府以重症清零，輕症有效控管，減災和照護中重症患者為重，現階段以推動新臺灣模式，達到「正常生活、積極防疫、穩健開放」的目標。

強化民間自主應變能力

縮減隔離天數與管制強度，搭配快篩試劑的使用，要求確診者應主動通知自己的密切接觸者採取隔離，流程中的接觸者通知也力求採電子化方式。民間自主應變需大量的快速篩檢試劑，政府定額徵用並採行「家用快篩實名制」，將快篩試劑鋪貨至健保特約藥局，方便民眾憑健保卡就能購買。

保全醫療體系量能

強化輕重症感染者分流，輕症感染者採居家照護，醫院僅收治中重症、長者等高風險族群。民眾在居家照護期間，可以手機下載 App 使用緊急醫療諮詢，對於居家照護者的用藥需求，各地藥師及社區藥局組成服務網絡，可以通訊方式提供諮詢及送藥。2022 年 4 月底時，約 80% 的臺灣民眾完成 COVID-19 疫苗基礎劑接種，追加劑則達 60%。

臺灣能幫忙，臺灣正在幫忙

當今世界仍面臨疫情威脅、疫苗供給及疫後復甦挑戰，各國應通力合作、互相支持，並為下一個 disease X 預作準備。臺灣是全球攜手合作共同促進疫後復甦不可或缺之好夥伴，我們持續以具體的行動與各國合作，進行 COVID-19 疫苗、藥物研發之交流合作，並捐贈口罩、藥物等防疫醫療物資與設備，共同防堵疫情，展現「Taiwan Can Help, and Taiwan is Helping!」精神。

第 75 屆世界衛生大會(WHA)將於 2022 年 5 月舉辦，臺灣已連續五年未受邀出席；為爭取臺灣不被遺漏於全球衛生覆蓋範圍，臺灣亦將持續以專業、務實、有貢獻之精神爭取參與今年第 75 屆 WHA 的機會，與全球共同實現 WHO 零防疫缺口的願景。

我們籲請 WHO 及相關各方堅定支持將臺灣納入 WHO，讓臺灣完整參與 WHO 各項會議、機制及活動，與世界各國攜手，共同落實 WHO 憲章「健康是基本人權」及聯合國永續發展目標「不遺漏任何人」之願景。