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For more on **lessons from lockdown and future directions of asthma management** see [Comment Lancet Respir Med 2020; 8: 1070-71](#)

For more on **smoking during the pandemic** see [Editorial Lancet Respir Med 2021; 9: 435](#)

such as asthma attacks and hospitalisations during the pandemic, were not widely reported. This observation

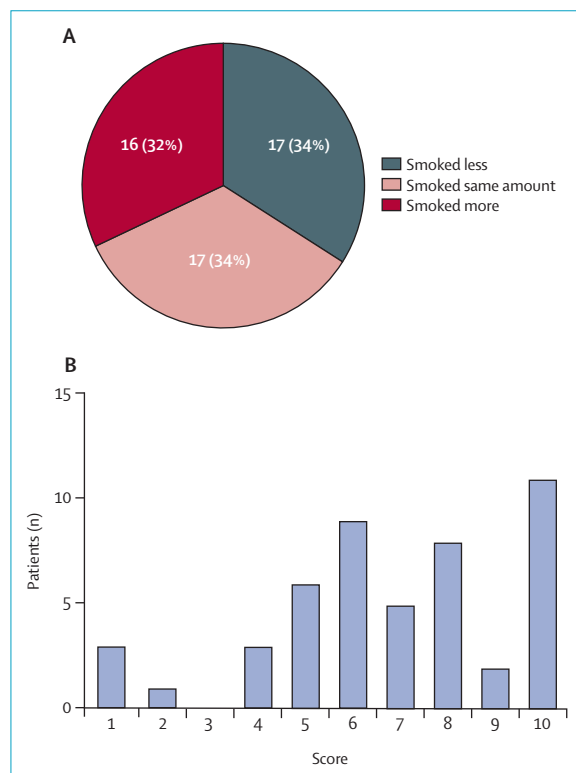


Figure: Changes in smoking behaviour of parents (n=50) (A) and scores of hardship (B) during the pandemic

might have been due to improved compliance with medication, reluctance to use health-care facilities at times of peak COVID-19 admissions, and less exposure to other triggers, such as viral infections picked up at school and pollen. Outdoor air pollution was reduced during lockdown, which could also have had an effect.

Although, children and young people continue to be mostly, but not completely, spared the worst health outcomes of the pandemic, the collateral effects appear to have had substantial detrimental effects. Knowledge of increased passive smoke exposure by SHS and THS will allow for more targeted history taking in high-risk patients and referral to smoking cessation clinics if appropriate. If future lockdowns occur, it is necessary to prioritise high-risk patients and provide virtual smoking cessation advice promptly, to limit both SHS and THS exposure. We did not have resources for virtual smoking cessation programmes in lockdown, but this should be prioritised in future.

Increased education on the harmful effects of both SHS and THS should be given to families in the community to try to influence parental habits, and adults need to understand the harmful effects of ETS and e-cigarettes to help improve the health of their children.

We declare no competing interests.

Mira Osinibi, Atul Gupta, Katharine Harman, *Cara J Bossley cara.bossley@nhs.net

Department of Paediatric Respiratory Medicine, King's College Hospital NHS Foundation Trust, London SE5 9RS, UK



From lockdown to vaccines: challenges and response in Nepal during the COVID-19 pandemic

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For more on **the comparative evaluation of commercially available rapid diagnostic test kits in Nepal** see <http://nhrc.gov.np/wp-content/uploads/2020/06/Final-report-of-rapid-diagnostic-test-and-Rt-PCR-for-COVID-19-june.pdf>

For more on **COVID-19 related data for Nepal** see <https://graphics.reuters.com/world-coronavirus-tracker-and-maps/countries-and-territories/nepal/>

For more on **Asian Development Bank Poverty data for Nepal** see <https://www.adb.org/countries/nepal/poverty>

Nepal confirmed its first COVID-19 case in a returnee student from Wuhan, China, on Jan 23, 2020, after the throat swabs sent to the WHO laboratory in Hong Kong identified SARS-CoV-2. Even though this was an isolated event with no further identifiable transmission, it set into motion some of the early responses by the Government of Nepal, including setting up screening at the airport, increased vigilance at the borders, establishing the first COVID-19 testing facility within the country, formulating expert guidelines, and identifying dedicated hospitals to treat COVID-19 patients. It was not until the end of March, 2020, when subsequent sporadic cases appeared, that the country began to confront the challenges of the pandemic.

As global cases started to surge, Nepal began imposing travel restrictions in March, 2020. Further measures ensued, such as restricting public gatherings, and closing schools and recreational spaces. Amidst the rising number

of COVID-19 cases in India, the decision to completely seal Nepal's land border with India was taken. Despite the precautionary measures put into place, the second imported case of COVID-19 was confirmed on March 23, 2020, and the country entered a nationwide lockdown the following day. The Government of Nepal saw the need to step up its efforts and responded by raising awareness via daily briefings, mobile applications, call centre hotlines, and social media platforms, as well as providing free treatment for patients with COVID-19, repatriating over 200 stranded Nepalese from China, setting up contact tracing, and expanding testing facilities to 10 laboratories by the end of March. However, formidable challenges began to emerge over the next few months.

Amid the sealed border and lockdown in both India and Nepal, thousands of Nepalese migrant workers, including daily wage labourers, were left stranded in India and at the

border. Safe rescue of these individuals while preventing spread of COVID-19 from imported cases within the country was essential. However, the vast, porous border with India meant that it became impossible to maintain surveillance of cross-border movement of the returnees. By the end of April, 2020, Nepalese authorities began bringing the migrant workers home, but made a 2-week institutional quarantine mandatory for the thousands of returnees. Nepal is a resource-limited nation—building an adequate number of quarantine centres that met WHO requirements and providing testing of the quarantined individuals remained a sticking point due to the unprecedented influx. Self-quarantine was a poor alternative as many families lived in crowded homes due to poverty and tradition. Lack of adequate PCR facilities meant that authorities had to rely on antibody-based rapid tests, which were later revealed to be only 50% sensitive. Furthermore, concerns were being raised regarding shortage of medical staff, overcrowding, sub-par facilities, and delayed test results in some quarantine centres which led to individuals leaving some facilities, some of whom were later confirmed to have COVID-19.

Meanwhile, the total number of cases had risen from 50 to over 1000 cases in the month of May and reached over 10 000 cases by the end of June, 2020. The rising number of cases coinciding with the opening of borders for the returning migrant workers was difficult to ignore, bringing into question the management of quarantine and testing of these individuals. Although it had been over 2 months since the lockdown began, authorities had been unable to act swiftly to scale up the health system infrastructure. Nepal was now beginning to face the challenges of personal protective equipment shortages, overwhelming health-care systems with shortages of intensive care unit (ICU) beds and ventilators, spreading of misinformation, and the economic effects of lockdown. However, the economic effects were particularly devastating in an economy heavily dependent on remittance and tourism industry. 25% of the population lived below the poverty line before the pandemic and were at risk of being pushed further down. The government responded with relief packages, expanding contact tracing, and increasing testing, which remained a challenge due to inadequate infrastructure and dependence on imports of diagnostic tools. Nevertheless, demonstrations were being staged in the capital by youth activists calling for more measures.

The flattening of the curve from the various measures and the growing public pressure led to the gradual lifting of lockdown in July, 2020. However, easing of restrictions resulted in a rapid escalation of community transmission that peaked in November, 2020, with over 5000 daily cases and led to a second lockdown in a few cities. The number of daily cases started to diminish by December and most of the remaining restrictions were soon lifted. However, the Nepalese endured many challenges during this time,

including discrimination against health-care workers and patients with COVID-19, hindering of effective contact tracing due to fear of stigma, a surge in maternal mortality, increasing mental health problems, and a rise in illegal wildlife poaching. On a positive note, the childhood immunisation programme remained undisrupted with the successful introduction of rotavirus vaccination into routine immunisation schedules.

As of April 20, 2021, there have been a total of 287 567 confirmed cases and 3102 deaths in Nepal, a country with a population of more than 28 million. A vaccination drive started on Jan 27, 2021, and as of April 20, 2021, 1.7 million doses of COVID vaccines have been administered to selected populations as a first dose. However, more vaccines are still necessary and procuring them is proving to be challenging for Nepal due to the recent halting of exports of the AstraZeneca vaccine by India to meet the demands at home. Daily life is gradually returning to normal, but there is a false sense of security among many Nepalese with the assumption that the worst is over with the vaccine rollout. Swiftly identifying key weaknesses and making improvements in the health-care delivery system is of the utmost importance in the coming days as with the majority of population yet to be vaccinated, the unprecedented recent surge of cases in India and Bangladesh, and reports of new variants in Nepal, there is a strong likelihood that the recent rise in cases is already heralding a second wave of infections.

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Sajog Kansakar, Shyam Prakash Dumre, Akshay Raut,
*Nguyen Tien Huy

tienhuy@nagasaki-u.ac.jp

Department of Internal Medicine, Manipal College of Medical Sciences, Pokhara, Nepal (SK); Central Department of Microbiology, Tribhuvan University, Kathmandu, Nepal (SPD); Nexus Institute of Research and Innovation (NIRI), Kathmandu, Nepal (SPD); St George's Hospital, Grant Government Medical College and Sir JJ Group of Hospitals, Mumbai, Maharashtra, India (AR); and School of Tropical Medicine and Global Health (TMGH), Nagasaki University, Nagasaki 852-8523, Japan (NTH)

For more on COVID-19 updates from the Nepal Government Ministry of Health see <https://covid19.mohp.gov.np/>

