Methods. We evaluated all SARS-CoV-2 RT-PCR positive results recovered from patients at two acute-care hospitals in Chicago, IL, during March 1 — November 30, 2020. Each hospital maintained stringent infection control policies throughout the study period. Through chart review (WT & CS), we categorized all initial SARS-CoV-2 positive tests collected > Hospital Day 5 (defined as ‘late-onset’ based on the 5-day mean incubation period for COVID-19) into the following clinical categories: Community Acquired; Unlikely Hospital Acquired; Possible Hospital Acquired; and Probable Hospital Acquired. Categories were made using hospital day, symptoms, alternative diagnoses, and clinical notes (Figure 1).

Results. Of 2,671 SARS-CoV-2-positive patients, most positive tests (n=2,551; 96%) were recovered pre-admit or by Hospital Day 2; first positive tests were uncommon during Hospital Days 6 to 14 (n=40; 1.5%); and rare after Hospital Day 14 (n=15; 0.6%). By chart review, of the 55 late-onset records reviewed, categorizations in descending order were: Prior positive at outside facility (n=23); Possible Hospital Acquired (n=16); Community Acquired (n=12); Probable Hospital Acquired (n=4). Less than half of the late-onset cases were categorized as a possible or probable hospital acquisition (Figure 2).

Conclusion. Hospital-acquired SARS-CoV-2 infection was uncommon. Most late-onset episodes of SARS-CoV-2 were explained by detection at an outside healthcare facility or by delayed diagnosis of patients with symptoms at time of presentation. A Lab-ID approach to nosocomial COVID-19 surveillance would potentially misclassify a substantial number of patients.

Disclosures. All Authors: No reported disclosures

400. Impact of SARS-CoV-2 Test-based Strategy to Reduce Quarantine Days Among Asymptomatic Healthcare Workers After Household Exposure
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Session: P-16. COVID-19 Epidemiology and Screening
Background. Appropriate staffing is essential to provide safe patient care. During the COVID-19 pandemic, healthcare workers (HCWs) are missing work days due to illness or high-risk exposure (HRE) to an infected person. To avoid staffing shortages, we implemented a SARS-CoV-2 test-based strategy among asymptomatic HCWs after HRE to facilitate early return to work.

Methods. In July 2020, our institution implemented a SARS-CoV-2 RT-PCR test-based strategy among HCWs within 7 days of HRE. HCWs were defined as any paid or unpaid persons directly or indirectly involved in patient care. A high-risk exposure (HRE) was defined as close contact to a SARS-CoV-2 positive person occurring during an acute-care hospital stay, two hospitals, Chicago, IL.

Results. Of 2,671 SARS-CoV-2-positive patients, most positive tests (n=2,551; 96%) were recovered pre-admit or by Hospital Day 2; first positive tests were uncommon during Hospital Days 6 to 14 (n=40; 1.5%); and rare after Hospital Day 14 (n=15; 0.6%). By chart review, of the 55 late-onset records reviewed, categorizations in descending order were: Prior positive at outside facility (n=23); Possible Hospital Acquired (n=16); Community Acquired (n=12); Probable Hospital Acquired (n=4). Less than half of the late-onset cases were categorized as a possible or probable hospital acquisition (Figure 2).

Conclusion. Hospital-acquired SARS-CoV-2 infection was uncommon. Most late-onset episodes of SARS-CoV-2 were explained by detection at an outside healthcare facility or by delayed diagnosis of patients with symptoms at time of presentation. A Lab-ID approach to nosocomial COVID-19 surveillance would potentially misclassify a substantial number of patients.

Disclosures. All Authors: No reported disclosures

401. Natural History of Shedding and Household Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 Using Intensive High-Resolution Sampling
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Session: P-16. COVID-19 Epidemiology and Screening
Background. In order to mitigate the spread of SARS-CoV-2 and the COVID-19 pandemic, public health officials have recommended self-isolation, self-quarantine of exposed household contacts (HHC), and mask use to limit viral spread within households and communities. While household transmission of SARS-CoV-2 is common, risk factors for HHC transmission are poorly understood.

Methods. In this prospective cohort study, we enrolled 37 households with at least one reverse transcription polymerase chain reaction-confirmed (RT-PCR) COVID-19 index case from March 2020 - March 2021, in order to calculate secondary attack rates (SAR) and define risk factors for secondary infections. Participants were tested daily for SARS-CoV-2 via RT-PCR, using self-collected nasal swabs. Households were followed until all members tested negative for seven consecutive days. We collected demographics, medical conditions, relationship to index case, and socioeconomic indicators. Subgroup data analysis was conducted and stratified by positivity status.

Results. Of 99 enrolled participants, 37 were index cases and 62 were household contacts (HHC), of whom 25 HHC were infected (40.3%). Secondary attack rate (SAR) was highest among adults caring for a parent (n=4/4, 100%) and parents of index cases (5/10, 50%). Households whose income came from service work had greater risk of transmission compared to households whose primary income was technology (n=5/7; 71.4% vs 8/3; 26.7% respectively). Pediatric contacts were at lower risk of infection when compared to adult contacts (n=5/18, 27.8% vs n=20/44, 45.5% respectively).

Conclusion. This study suggests that household transmission represents a key source of community-based infection of SARS-CoV-2, allocating resources for education/training regarding prevention among infected individuals and their close contacts will be critical for control of future outbreaks of SARS-CoV-2.

Disclosures. All Authors: No reported disclosures

402. COVID-19 Infection in Nepal: Epidemiological Analysis from April 2020 to March 2021
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Session: P-17. COVID-19 Global Response/Response in Low Resource Settings
Background. In December 2019, SARS-CoV-2 or coronavirus disease 2019 (COVID-19) emerged from Wuhan, China. A global pandemic quickly unfolded, infecting >137 million people and causing >2.9 million deaths globally as of April 13, 2021. Before April 1, 2020, there were only five confirmed COVID-19 cases in Nepal. Like many countries around the world, the COVID-19 situation quickly escalated in Nepal. The purpose of this study was to determine the trends in COVID-19 cases and deaths in Nepal from April 2020 to March 2021.

Methods. We utilized epidemiological data from daily Situation Reports published by the Ministry of Health and Population (MOHP) of Nepal. Data were
extracted or calculated from April 1, 2020 to March 31, 2021. Primary variables of interest were national and provincial daily cases, total cases, daily deaths, and total deaths.

**Results.** Between April 1, 2020 to March 31, 2021, there were 277,304 cases. October 2020 had the highest monthly cases with 92,926 cases. During the one-year study period, the infection rate was 915 cases per 100,000 people. The largest single-day new cases was October 21, 2020 with 5,743 cases, which is calculated to 19 cases per 100,000 people. There were a total of 3,030 deaths. The largest daily new deaths was November 4, 2020 with 43 cases. June 10, 2020 had the highest number of people in quarantine with 172,266 people. October 23, 2020 had the highest number of active cases with 46,329 cases. By March 31, 2021, the percent of mortality was 1.1%, active infection was 0.5%, and recovery was 98.4%.

**Conclusion.** Nepal had lower COVID-19 infection and case-fatality rates compared to other countries most affected by the pandemic. This was due to several factors, most notably early implementation of strict lockdown measures and closing of international borders on March 24, 2020 after the second confirmed COVID-19 case. As lockdown restrictions were lifted on July 7, 2020, COVID-19 cases and deaths in Nepal rose rapidly. As vaccination began on January 27, 2021, cases started to slow down until the most recent outbreak coinciding with the second wave in its neighboring country, India. Now, infection and case-fatality rates in Nepal are at an all-time high, prompting further lockdowns on April 29, 2021.

**Disclosures.** All Authors: No reported disclosures

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**Figure 1. Mortality by age groups**

**Table 1. Comorbidities of patients with COVID-19 admitted to the ICU**

| Comorbidity                        | N (%)   |
|-----------------------------------|---------|
| Hypertension                      | 288 (75.3%) |
| Obesity                           | 184 (48.16%) |
| Diabetes                          | 181 (47.38%) |
| Chronic kidney disease            | 91 (23%)  |
| Coronary artery disease           | 47 (12%)  |
| Cerebrovascular disease           | 36 (9.4%)  |
| Chronic obstructive pulmonary disease | 27 (7.06%) |
| Malignancy                        | 29 (7.5%)  |
| Thyroid disease                   | 23 (6%)   |

**Figure 1. Mortality by age groups**

**Figure 2. Mortality by cumulative number of comorbidities**

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**Table 1. Limits for each parameter of the risk matrix and ‘normality’ scores in relation to COVID-19: the lower the risk, higher is the ‘normality’ score.**

| Indicators       | Normality limits and (scores) | Number of new cases per 100,000 persons within the last 14 days (Tx) | Stability | Increase |
|------------------|------------------------------|---------------------------------------------------------------|-----------|----------|
|                  | 20 ≤ Tx < 100                | 200 ≤ Tx < 500                                               | (1)       | (2)      |
|                  | 50 ≤ Tx < 100                | 500 ≤ Tx < 100                                              | (2)       | (3)      |
|                  |                           | 1,000 ≤ Tx < 200                                             | (3)       | (4)      |
|                  |                           | 2,000 ≤ Tx < 400                                             | (4)       | (5)      |
|                  |                           | Tx ≥ 400                                                     | (5)       | (6)      |

**Table 2. Criteria for opening and closing schools in a city according to the COVID-19 Normality Rate.**

**404. COVID-19 Normality Rate: Criteria for Optimal Time to Return to In-person Learning**

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**Session:** P.17. COVID-19 Global Response/Response in Low Resource Settings

**Background.** The COVID-19 pandemic caused the most severe global education disruption in history. According to UNESCO, at the peak of the crisis over 1.6 billion learners in more than 190 countries were out of school. After one year, half of the world’s student population is still affected by full or partial school closures. Here we investigated whether or not it is possible to build a multivariate score for dynamic school decision-making specially in scenarios without population-scale RT-PCR tests.

**Methods.** Normality rate is based on a COVID-19 risk matrix (Table 1). Total score (TS) is obtained by summing the risk scores for COVID-19, considering the six parameters of the pandemic in a city. The COVID-19 Normality Rate (CNR) is obtained by linear interpolation in such a way that a total score of 30 points is equivalent to a 100% possibility of normality and, in a city with only six total points would have zero percent chance of returning to normality: CNR = (TS – 6)/24 (%). The criteria for opening and closing schools can be defined based on the percentages of return to normality (Table 2).

**Table 2. Criteria for opening and closing schools in a city according to the COVID-19 Normality Rate.**

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**Disclosures.** All Authors: No reported disclosures

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Table 1. Comorbidities of patients with COVID-19 admitted to the ICU

| Comorbidity                        | N (%)   |
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