INTRODUCTION:
COVID-19 is a respiratory disease caused by a novel coronavirus that is structurally related to severe acute respiratory syndrome (SARS)1. Due to its infectious nature, government health orders were enacted to reduce public health risks. The two New South Wales (NSW) state-wide (SW) laboratories (the NSW Biochemical Genetics (BG) Service, and the NSW Newborn Screening (NBS) Programme) responded to the pandemic by developing and implementing a business continuity plan (BCP) to ensure continuity of these essential services.

BCP OVERVIEW:
NSW Biochemical Genetics Service BCP
BCP #1 (23rd March to 29th June 2020): Split team A/B roster with five-day fortnights per team on-site (Monday to Friday, 8:30am to 5:30pm) with the remainder of the time working from home (WFH) as reserve staff. Essential assays were continued whilst low-priority assays halted. One BG staff member had refresher cross-training in NBS.

BCP #2 (24th August 2020 till 23rd October 2020): Rotating single scientist as reserve staff WFH each week due to low virus transmission in the community.

BCP #3 (28th June 2021 to present): With the vaccination program beginning in February 2021, 85% of BG staff were fully vaccinated prior to the emergence of the delta strain in NSW on 16th June 2021. Two scientists as reserve staff WFH due to increased virus transmission in the community.

NSW Newborn Screening Programme BCP
BCP #1 (23rd March to 31st May 2020): Split team A/B morning and afternoon six-and-a-half hour shifts with fortnightly rotation, Monday to Friday, with a one hour gap to avoid staff cross-over. All assays were performed as usual.

BCP #2 (28th June 2021 to present): One senior scientist and hospital scientist as reserve staff committed to WFH at the start of the Greater Sydney Lockdown for a five-week period – transitioning to a single scientist WFH as reserve. Remaining staff on-site.

RESULTS:
NSW Biochemical Genetics Service BCP
• Requests for testing remained consistent (p = 0.23)
• No impact to critical assay TATs (figure 1)
• No significant difference between NCRs and im’s (p = 0.42 & 0.78)

NSW Newborn Screening Programme BCP
• Number of DBS cards received remained consistent (p = 0.67)
• Pre-pandemic TATS were maintained during the pandemic
• A 21% increase in the number of rejected DBS cards (contaminated and refused)

CHW Pathology Employee Satisfaction Survey Results
✓ 33% of CHW Pathology employees participated in the survey
✓ 100% of participants are intending to or are already vaccinated (prior to mandate)
✓ 57% felt a heightened sense of camaraderie with their team due to the pandemic
✓ 54% did not experience difficulty in delivering urgent results

DISCUSSION:
The majority of employees were satisfied with their laboratory’s BCP; however, an overwhelming majority (87%-95%) of survey participants experienced an increase in work and non-work related stress due to COVID-19. The 100% vaccination compliance subsequently changed the way BCPs were developed for the delta variant outbreak (June 2021 to present) and resulted in an overall 28% decrease in split team rosters. Frontline pressure and/or patient hesitancy was reflected in the increase of rejected DBS cards by NBS. Overall, the SW services BCPs were successful (with no statistically significant impact to patient care and delivery of essential services). The success of the BCPs may be attributed to strategic planning and timely implementation, and has been an invaluable tool for future disaster management plans.