SPOTLIGHT ON STAKEHOLDER SUCCESS

The "Bubble": Safe and informed population health management based on strategic, novel laboratory testing to restart a global sports league, stimulate the economy and foster normalcy during the COVID-19 pandemic

PATIENT	EARLIER DIAGNOSIS	20 cases of COVID-19 were identified during initial arrival quarantine using RT-PCR testing, often before the onset of symptoms. Due to strict isolation, no secondary infections were associated with contact with these individuals.
	MAINTAINED SAFETY	98.8% (3604 of 3648) of individuals who entered the NBA Bubble remained without a SARS-CoV-2 infection during the 4-month Bubble. Critically, there were 0 cases of COVID-19 among NBA players and NBA team staff in the Bubble.
	IMPROVED SATISFACTION	100% (36 of 36) of previously infected individuals who continued to intermittently test positive for COVID-19 after recovery did not experience a reinfection, thus, safely sparing these individuals from unnecessary isolation and enabling them to continue normal activities despite post-recovery positive PCR testing. Importantly, no transmission events or secondary infections were detected from these 36 individuals who had persistent positive test results post recovery after following CDC isolation recommendations (at least 10 days). These individuals engaged in at least 1480 person-days of indoor, unmasked contact events (basketball, eating, etc.), masked interactions, or other situations (approx. 51 days per individual) with un-infected individuals who continued to test negative daily.
CLINICIAN	INFORMED DECISION-MAKING	100% of the medical staff across the 22 teams utilized the SARS-CoV-2 test results coupled with real-time analytics to assess and direct all aspects of player and staff life on campus. This occupational health effort was continued within the NBA after the Bubble concluded, throughout the pandemic, and ultimately led to 8 peer-reviewed articles in high impact journals such as JAMA, the New England Journal of Medicine, JAMA Internal Medicine and Clinical Infectious Disease. These contributions to medical/ scientific literature helped to guide public health policies in the US, and globally, at the time of the Bubble and beyond. *See references 1-8
HEALTH SYSTEM / ADMINISTRATION	ENHANCED RESOURCE UTILIZATION	More than 300 professional basketball players, 400 team staff, and other non-essential NBA league personnel lived and worked in the "NBA Bubble" who otherwise would not have been able to perform their job functions during this period of the pandemic.
	PROTECTED REVENUE	An estimated \$1.3 billion in revenue was generated by the NBA in association with the "NBA Bubble", taking into account the \$190 million implementation efforts and sustainability needs.
PAYOR	STIMULATED ECONOMY	More than 6,500 jobs were created for "NBA Bubble" implementation. Local economic impact in Orlando exceeded \$200M.

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^{2.} Christina D Mack, Caroline Tai, et al. Severe Acute Respiratory Syndrome Coronavirus 2 Reinfection: A Case Series From a 12-Month Longitudinal Occupational Cohort, Clinical Infectious Diseases, Volume 74, Issue 9, 1 May 2022, Pages 1682–1685, doi.org/10.1093/cid/ciab738

^{3.} Kissler SM, Fauver JR, Mack C, et al. Viral dynamics of sars-cov-2 variants in vaccinated and unvaccinated persons The New England Journal of Medicine, 2021;385:2489–2491.

^{4.} Hay JA, Kissler SM, et al. Quantifying the impact of immune history and variant on SARS-CoV-2 viral kinetics and infection rebound: A retrospective cohort study eLife 2022;11:e81849, doi.org/10.7554/eLife.81849

^{5.} Tai CG, Maragakis LL, Connolly S, et al. Association Between COVID-19 Booster Vaccination and Omicron Infection in a Highly Vaccinated Cohort of Players and Staff in the National Basketball Association. JAMA. 2022;328(2):209-211. doi:10.1001/jama.2022.9479

^{6.} Mack CD, Anderson DJ, DiFiori J. Association Between COVID-19 Booster Vaccination and Omicron Infection in a Cohort of Players and Staff in the National Basketball Association-Reply. JAMA. 2022;328(21):2165. doi:10.1001/jama.2022.18036

^{7.} Charness ME, Gupta K, Stack G, Strymish J, Adams E, Lindy DC, Mohri H, Ho DD. Rebound of SARS-CoV-2 Infection after Nirmatrelvir -Ritonavir Treatment. New England Journal of Medicine. 2022 Sep 7.

^{8.} Kissler SM, Fauver JR, Mack C, Olesen SW, Tai C, Shiue KY, Kalinich CC, Jednak S, Ott IM, Vogels CB, Wohlgemuth J, Weisberger J, DiFiori J, Anderson DJ, Mancell J, Ho DD, Grubaugh ND, Grad YH. Viral dynamics of acute SARS-CeV-2 infection and applications to diagnostic and public health strategies. PLoS biology. 19(7):e3001333. 2021 Jul 12.