29 September 2023

NSW Health Cruise Ship Program

Annual Report 2022/2023

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Summary

- In the past year (June 2022 to June 2023) there were 257 cruise ship voyages into NSW ports.
- Most voyages terminated in Sydney, with just over half being domestic cruises.
- The majority of voyages had low rates of COVID-19, acute respiratory illness and gastroenteritis.
- 244 voyages had Tier 1 levels of COVID-19 infection on arrival (<3% of passengers and crew with active COVID-19).
- The Vessel Inspection Program inspected 19 vessels, with all passing inspection.

The NSW Health Cruise Ship Program consists of two sub-programs:

1. Cruise Ship Health Surveillance Program

2. Vessel Inspection Program.

1. Cruise Ship Health Surveillance Program

The Cruise Ship Health Surveillance Program is designed to monitor infectious disease outbreaks on cruise ships, work with the vessel medical team and cruise ship company to respond to significant outbreaks, and reduce the disease burden into NSW from people disembarking from cruise ships. The levels of respiratory and gastrointestinal illness are monitored on each cruise ship voyage through the routine review of health reports submitted by cruise ships prior to docking.

a. Voyage, passenger and crew movements (4 June 2022 – 30 June 2023)
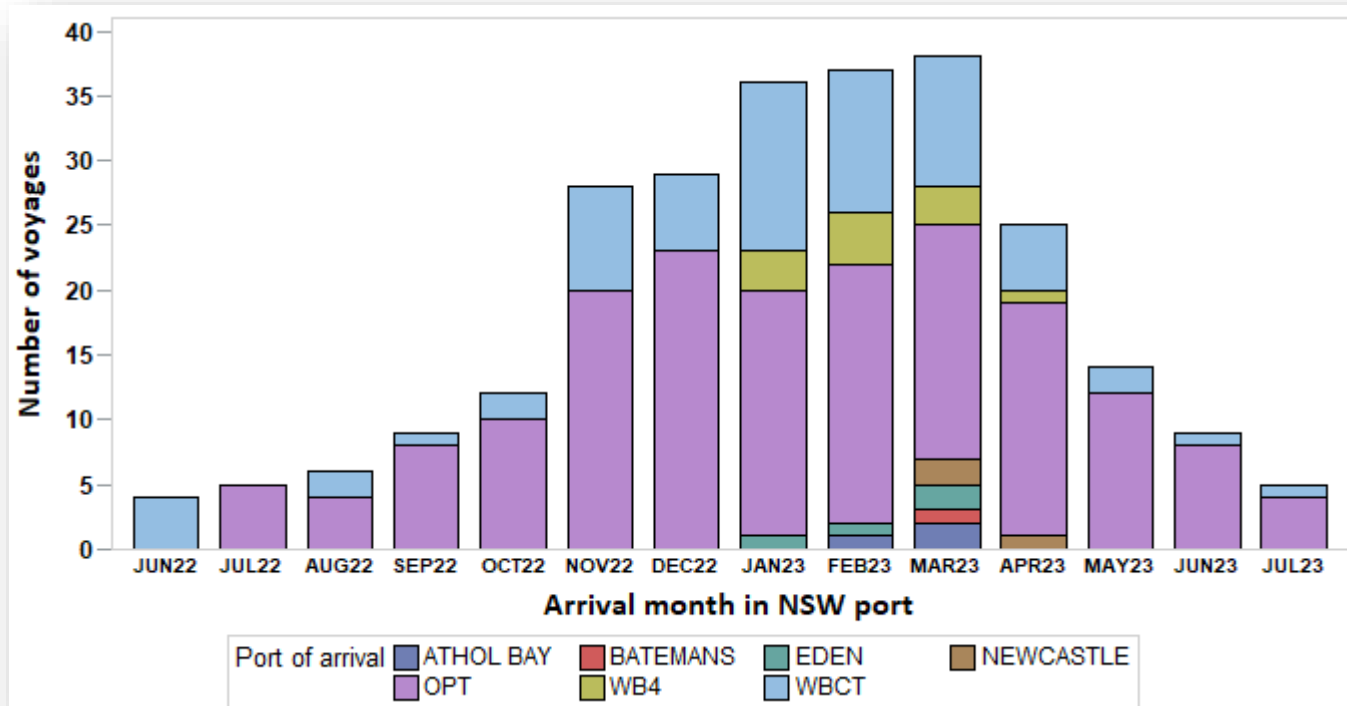
From 4 June 2022 to 30 June 2023, 257 passenger cruise ship voyages entered NSW ports. The median cruise length of these voyages was 9 days. These 257 voyages resulted in 595,986 passenger and 256,768 crew movements. Table 1 and Figure 1 show the breakdown of the final NSW ports docked at by the cruise ships, with Sydney's Overseas Passenger Terminal being the main port used.

Table 1: Voyage number and percentage of total voyages, by port.

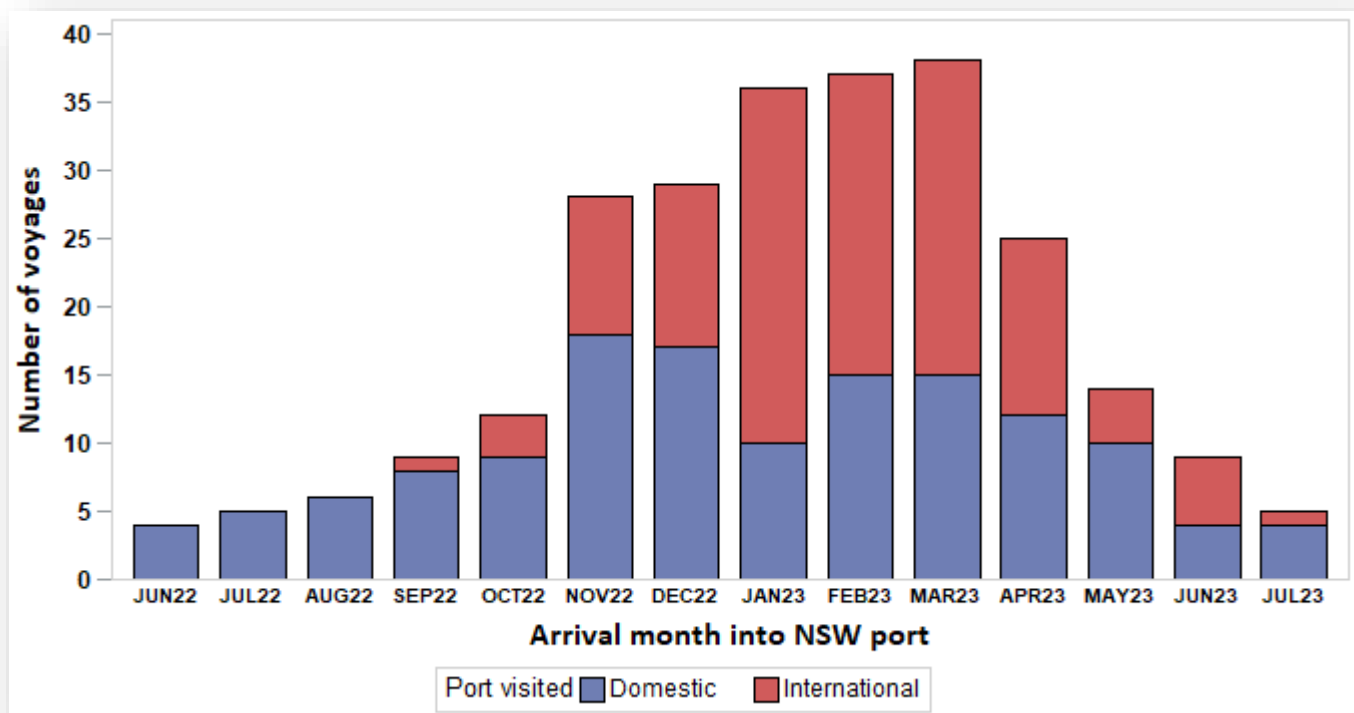| Port	Voyages (n)	Percentage of all voyages (%)
Overseas Passenger Terminal [OPT] (Sydney)	169	65.8
White Bay Cruise Terminal [WBCT] (Sydney)	66	25.7
White Bay Terminal 4 [WB4] (Sydney)	11	4.3
Eden	4	1.6
Newcastle	3	1.2
Athol Bay Anchorage [ATHOL BAY] (Sydney)	3	1.2
Batemans Bay [BATEMANS]	1	0.4
Total	257	100

White Bay Cruise Terminal, White Bay Terminal 4, and Athol Bay Anchorage are alternate docking sites for ships visiting Sydney Harbour. White Bay Cruise Terminal and White Bay Terminal 4 are co-located in Balmain.

Figure 1: Monthly frequency of voyage dockings at NSW ports, by port of docking, 2022-2023

Of the 257 voyages, 120 had visited an international port during their voyage while 137 visited Australian ports only (Figure 2). The majority of the voyages terminated in NSW (223), and 34 voyages (13%) transited through NSW ports.

Figure 2: Monthly frequency of voyage dockings at NSW ports, by cruise classification, 2022-2023

b. Respiratory and Gastroenteric disease reporting

The reporting of respiratory and gastrointestinal disease by cruise ships to NSW Health is outlined in the *Eastern Seaboard and Western Australian Cruising Protocols* and the *CDNA National Guidelines for Cruising in Australia*. These documents also outline response procedures to increased rates of COVID-19 cases in isolation on the ship. The COVID-19 isolation rates are categorised into three levels, based on the proportion of passengers and crew onboard that are in isolation for COVID-19 – Tier 1 (< 3%), Tier 2 (3% to < 10%), and Tier 3 (10% or greater).

From 4 June 2022 to 30 June 2023, 244 (95%) of the 257 voyages were classified as Tier 1, 12 voyages (5%) were classified as Tier 2, and 1 voyage classified as Tier 3 (<1%). Tier levels were not applied to acute respiratory illness (ARI) or to acute gastroenteritis (AGE). ARI incidence had a similar distribution to COVID-19, whereas AGE occurred at much lower levels this year.

The distribution of rates of illnesses onboard cruise ships is shown in Table 2, and Figures 3-5.

Table 2: The distribution of rates of illnesses onboard cruise ships arriving at NSW ports, 2022-2023.

Illness	Minimum	25th quartile	Median	75th quartile	Maximum
COVID-19 cases* in isolation	0%	0%	0.39%	1.0%	18.5%
Acute respiratory infection	0%	0%	0.58%	1.7%	24.3%
Acute gastroenteritis	0%	0%	0.05%	0.2%	1.58%

*COVID-19 was detected on vessels using various commercial rapid antigen tests

Figure 3: COVID-19 isolation case rate 24 hours prior to docking, in cruise ships arriving at NSW ports, 2022-2023
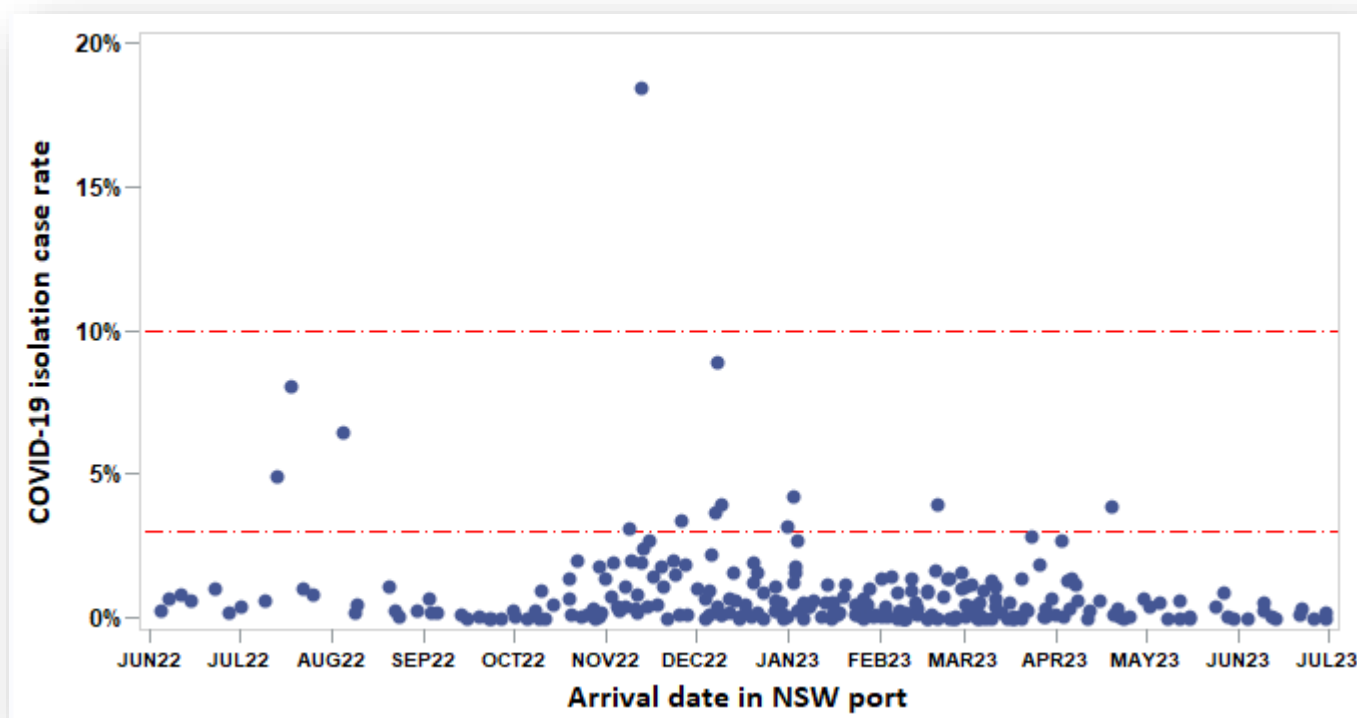

Figure 4: Acute respiratory infection case rate 24 hours prior to docking, in cruise ships arriving at NSW ports, 2022-2023
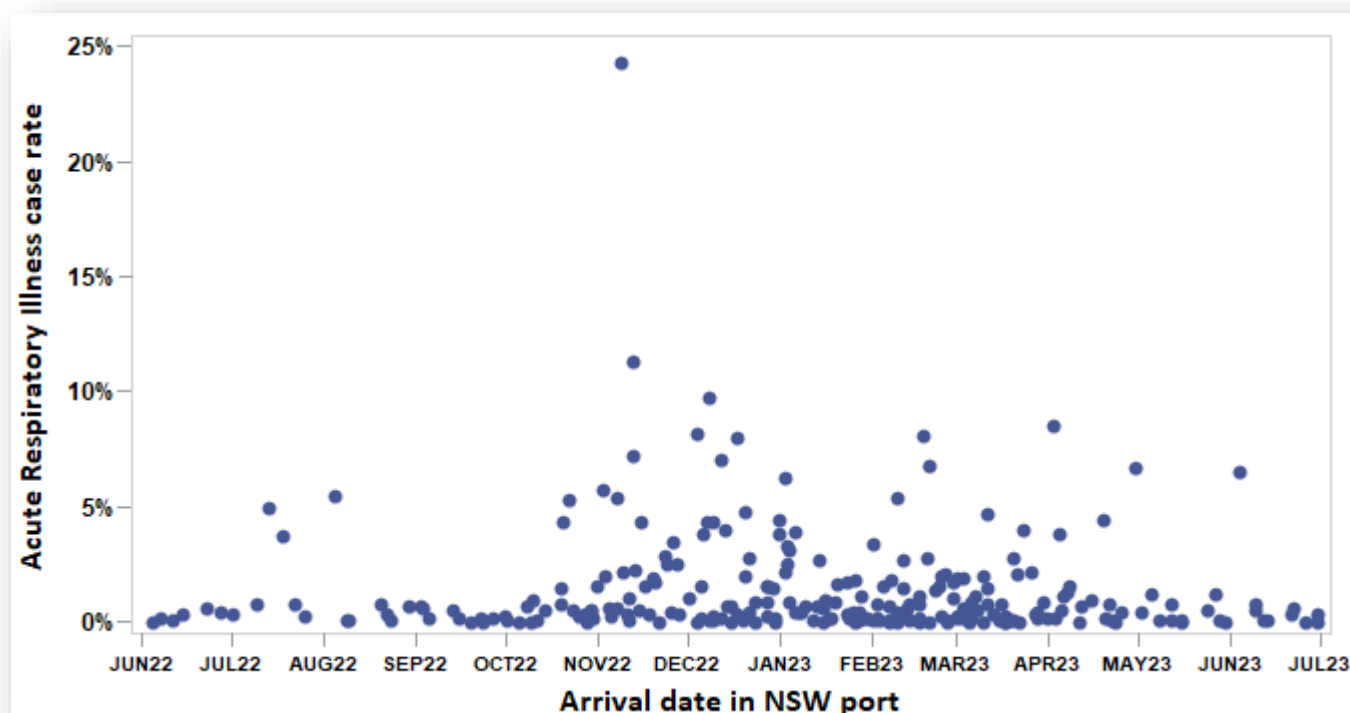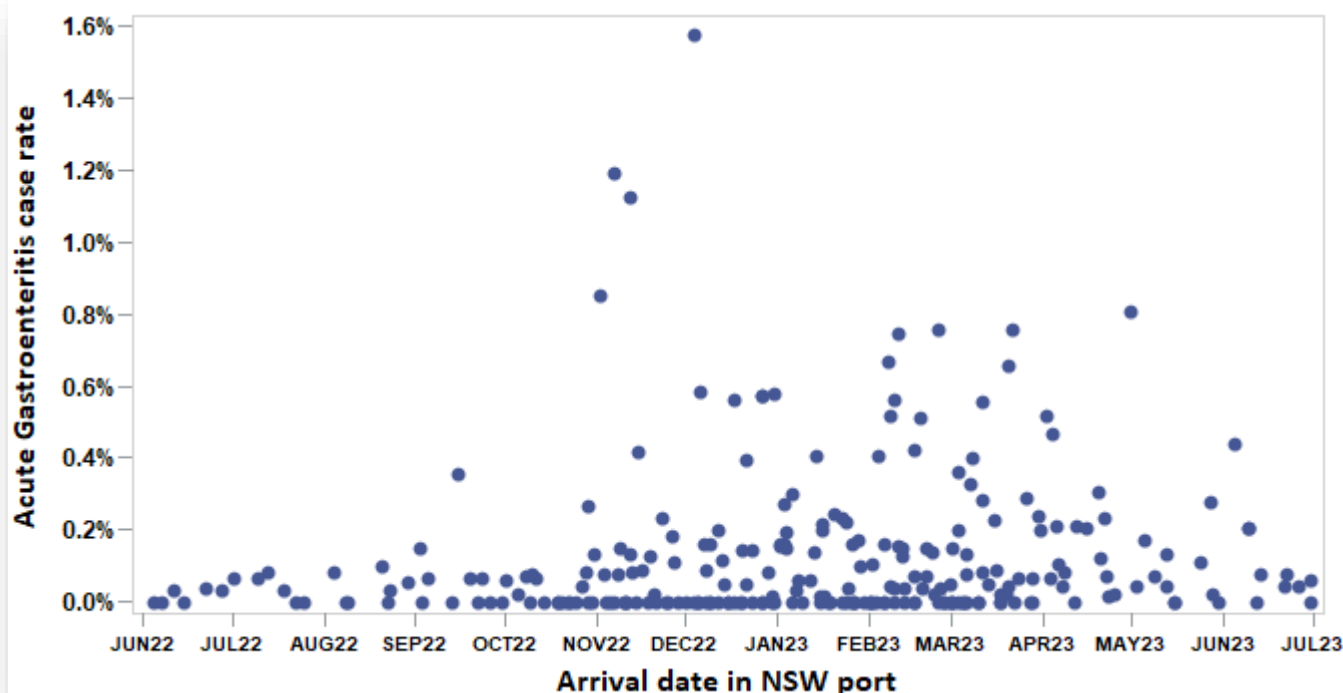
Figure 5: Acute gastroenteritis case rate 24 hours prior to docking, in cruise ships arriving at NSW ports, 2022-2023

c. Response to infectious diseases

COVID-19
From 4 June 2022 to 30 June 2023 NSW Health staff attended the disembarkation of 19 ships at Sydney Harbour ports, to support disembarkation of passengers with potential exposure to COVID-19 infection.

Tuberculosis
Three separate tuberculosis exposures were identified on three cruise ships. Exposures occurred from single, unrelated cases in crew, and contact tracing of exposed crew members was conducted in line with NSW TB guidelines. None of the close contacts investigated had active TB. Passengers were not considered to have had significant exposure.

Salmonella
A small cluster of *Salmonella* Typhimurium was detected via whole-genome sequencing. Although the cases reported recent travel on a cruise ship, investigations could not identify a source of infection, and no further cases were detected.

2. Vessel Inspection Program

The aim of the NSW Health Vessel Inspection Program is to ensure sanitation practices on board cruise ships meet local standards, reflecting the intent of the International Health Regulations. Through regular environmental health inspection and reporting, the Program aims to reduce the risk of transmission of disease.

a. Inspection Areas

The Vessel Inspection Program focuses on ten risk areas. These include:

i. Hygiene and hand washing
ii. Kids club and childcare facilities
iii. Cleaning equipment and linen
iv. Medical services and body holding facilities
v. Drinking water
vi. Legionella control and plan
vii. Recreational water (pools and spas)
viii. Skin penetration (beauty therapy and associated facilities)
ix. Pest control
x. Waste management

Food inspections in NSW are conducted by the NSW Food Authority. Any food safety concerns noted during a vessel inspection are referred to the NSW Food Authority.

b. Vessels selected for the 2022/23 season

To allocate resources appropriately a priority-based approach is undertaken to determine which vessels are selected for inspection. All vessels scheduled to visit a NSW port during the season are assessed and assigned a 'High', 'Medium' or 'Low' priority for inspection. This assessment is based on several criteria – number of berths per season, company exposure to the Australian market, date of previous inspection, known communicable disease outbreak on the vessel since last inspection, and public health complaints about the vessel since last inspection.

For the season 2022/23 the following vessels were prioritised for inspection, with 85% of 'High Priority' and 62% of 'Medium Priority' vessels inspected (Table 3).

Table 3: 'High' and 'Medium' priority vessels with inspection status

	'High' Priority	Inspected		'Medium' Priority	Inspected
1.	Carnival Splendor	Yes	1.	Amera	Yes
2.	Celebrity Eclipse	Yes	2.	Azamara Quest	Yes
3.	Coral Princess	Yes	3.	Grand Princess	No
4.	Majestic Princess	Yes	4.	Quantum of the Seas	No
5.	Noordam	No	5.	Queen Mary 2	No
6.	Norwegian Spirit	Yes	6.	Oceania Regatta	Yes
7.	Ovation of the Seas	Yes	7.	Seabourn Sojourn	Yes
8.	Pacific Adventure	Yes	8.	Seven Seas Explorer	No
9.	Pacific Explorer	No	9.	Silver Muse	Yes
10.	Queen Elizabeth	Yes	10.	Silver Shadow	No
11.	Seabourn Odyssey	Yes	11.	Silver Whisper	Yes
12.	Viking Mars	Yes	12.	Star Breeze	Yes
13.	Viking Orion	Yes	13.	Westerdam	Yes

c. Inspection results

All nineteen vessels inspected passed the inspection. All but one vessel passed all ten risk areas. One vessel was provided with corrective action around skin penetration activities (Table 4).

Of note, while not resulting in inspection failures, a common theme from the inspections was that the beauty spas had some suboptimal practices. These beauty spas were all sub-contracted to external providers. In each instance the deficiencies were highlighted to the ship's Captain / Master and remedial action requested.

Table 4: Summary table of inspection results

Date of Inspection	Vessel	Vessel Priority	Lead LHD	1. Hygiene and Washing	2. Childcare Facilities	3. Cleaning Equipment and Linen	4. Medical Facilities and Body Holding Facility	5. Legionella control and plan	6. Drinking Water	7. Recreational Water	8. Skin Penetration	9. Pest Control	10. Waste Management	OVERALL
22-Nov-22	Star Breeze	Medium	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
05-Dec-22	Carnival Splendor	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
06-Dec-22	Westerdam	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass
07-Dec-22	Viking Orion	High	HNELHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
13-Dec-22	Oceania Regatta	Medium	HNELHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
20-Dec-22	Silver Muse	Medium	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
21-Dec-22	Majestic Princess	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
06-Jan-23	Azamara Quest	Medium	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
09-Jan-23	Pacific Adventure	Medium	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
13-Jan-23	Ovation of the Seas	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
18-Jan-23	Coral Princess	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
20-Jan-23	Queen Elizabeth	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
23-Jan-23	Silver Whisper	High	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
08-Feb-23	Amera	Medium	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
28-Feb-23	Celebrity Eclipse	High	SESLHD	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
07-Mar-23	Seabourn Sojourn	Medium	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
09-Mar-23	Seabourn Odyssey	High	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
28-Mar-23	Norwegian Spirit	High	SESLHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
22-Mar-23	Viking Mars	High	HNELHD	Pass	Not Applicable	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Pass (n)				19	19	19	19	19	19	19	18	19	19	19
Pass (%)				100%	100%	100%	100%	100%	100%	100%	95%	100%	100%	100%

- SESLHD = South Eastern Sydney Local Health District
- HNELHD = Hunter New England Local Health District