

COVID-19 predictors on vessels: Implications for the WA rural health system

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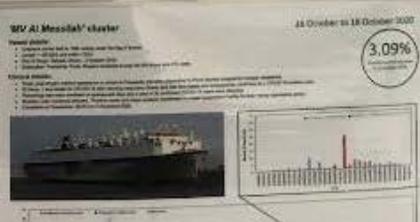
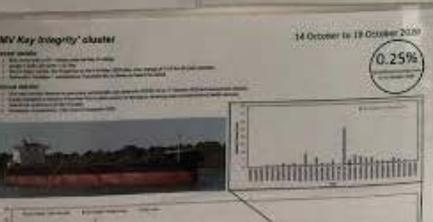
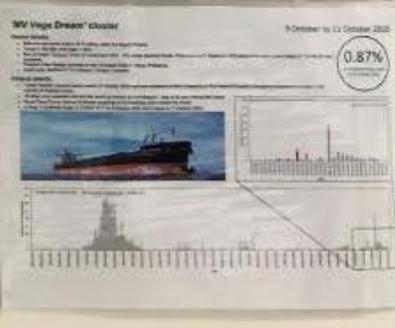
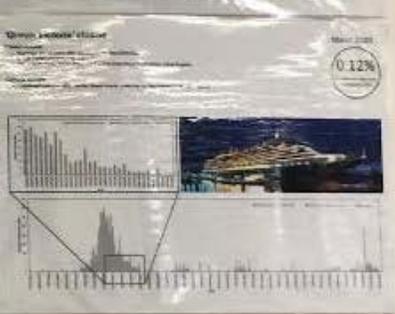
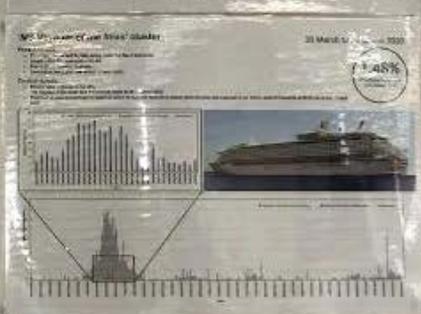
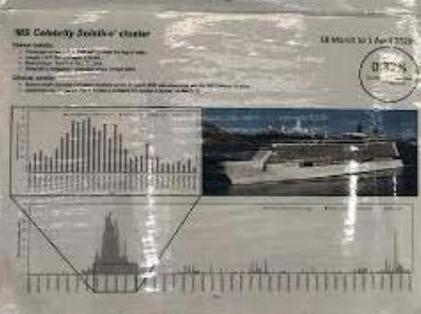
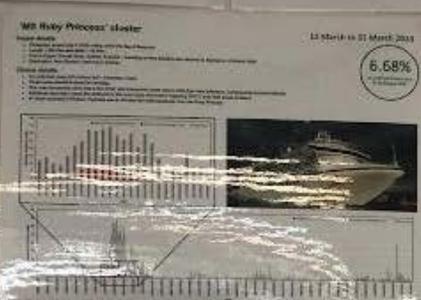
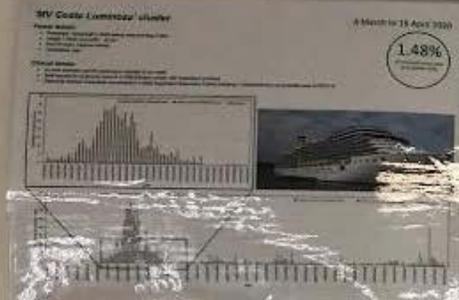
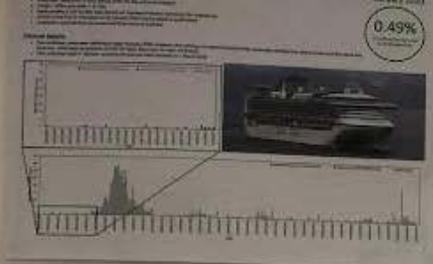
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VESSELS



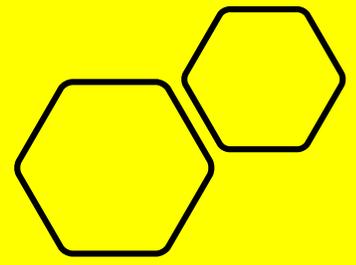




 Vega Dream bulk carrier leaves the Port of Port Hedland. Credit: Danielle Raffaele/The West Australian

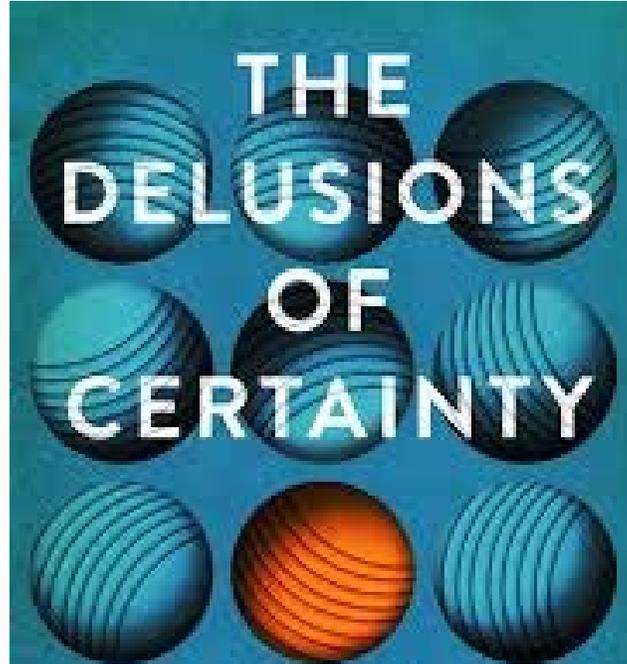
Coronavirus: Patricia Oldendorff departs Port Hedland as Vega Dream crew member tests positive for COVID-19

Callum Godde | PerthNow
October 11, 2020 6:59PM

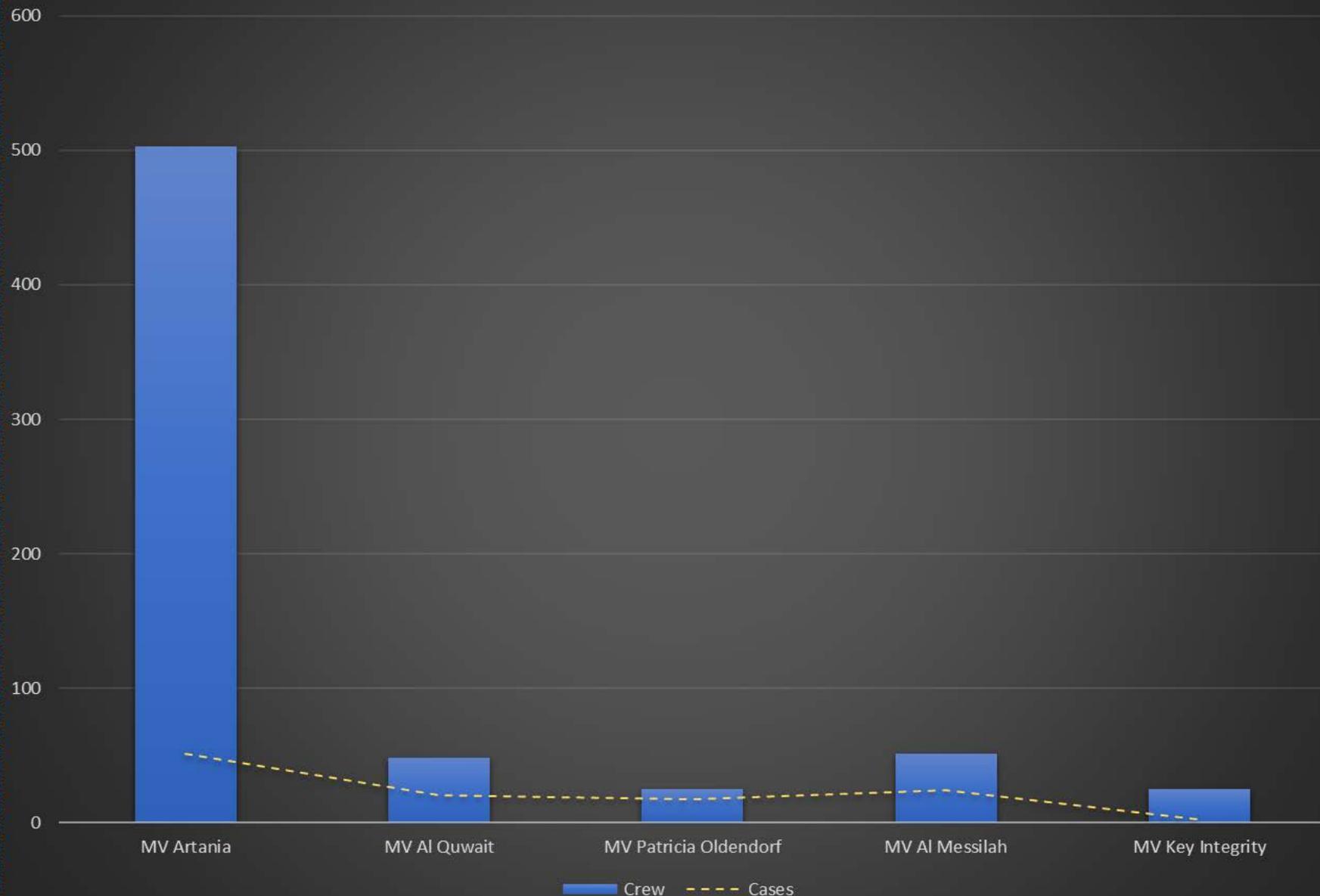


Quarantine before departure
Negative test before embarkation
14 days at sea
Temperature < 37.5°C
Screening questions and reporting
Non-COVID-19 related symptoms

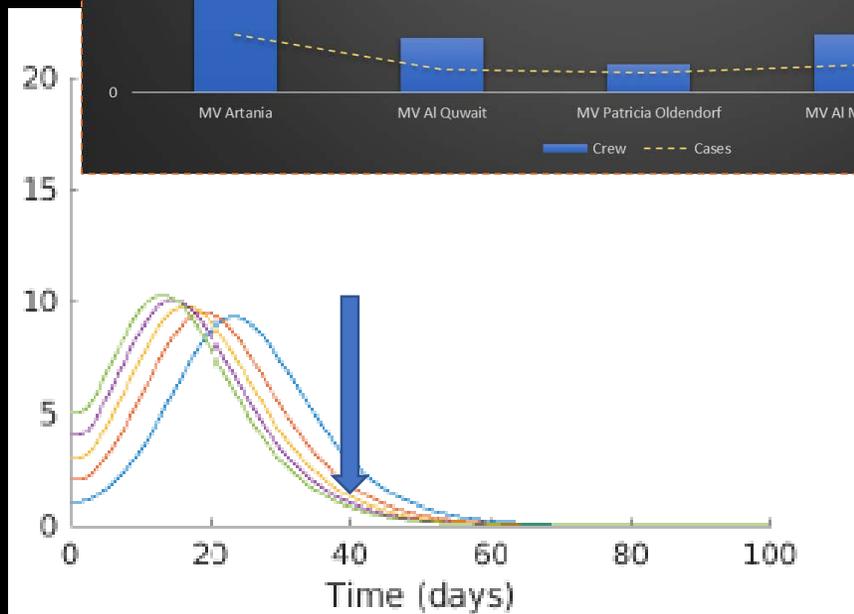
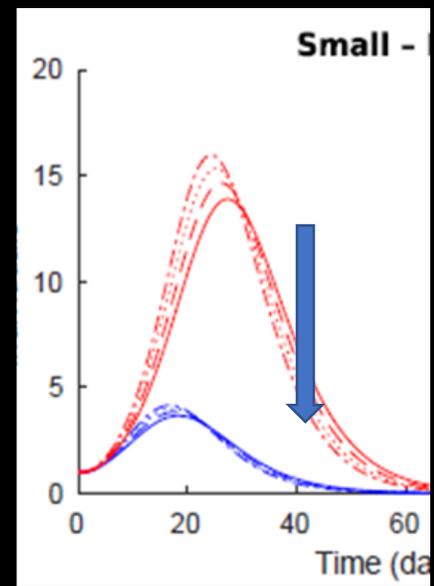
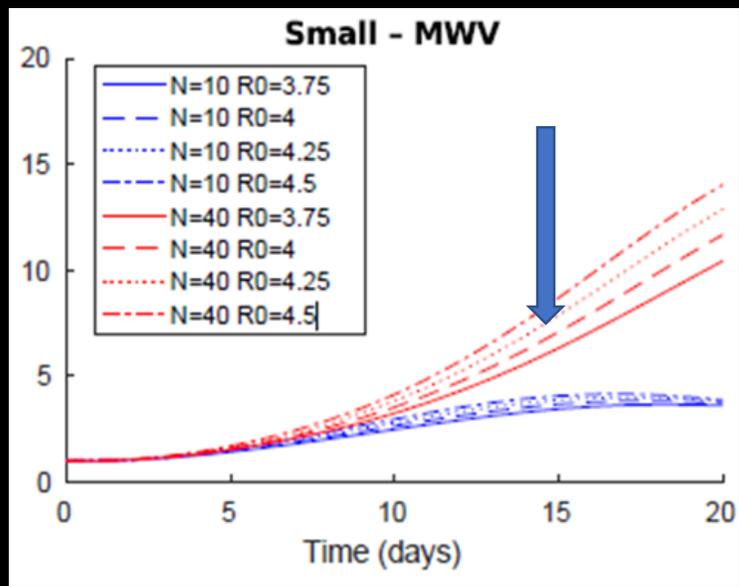
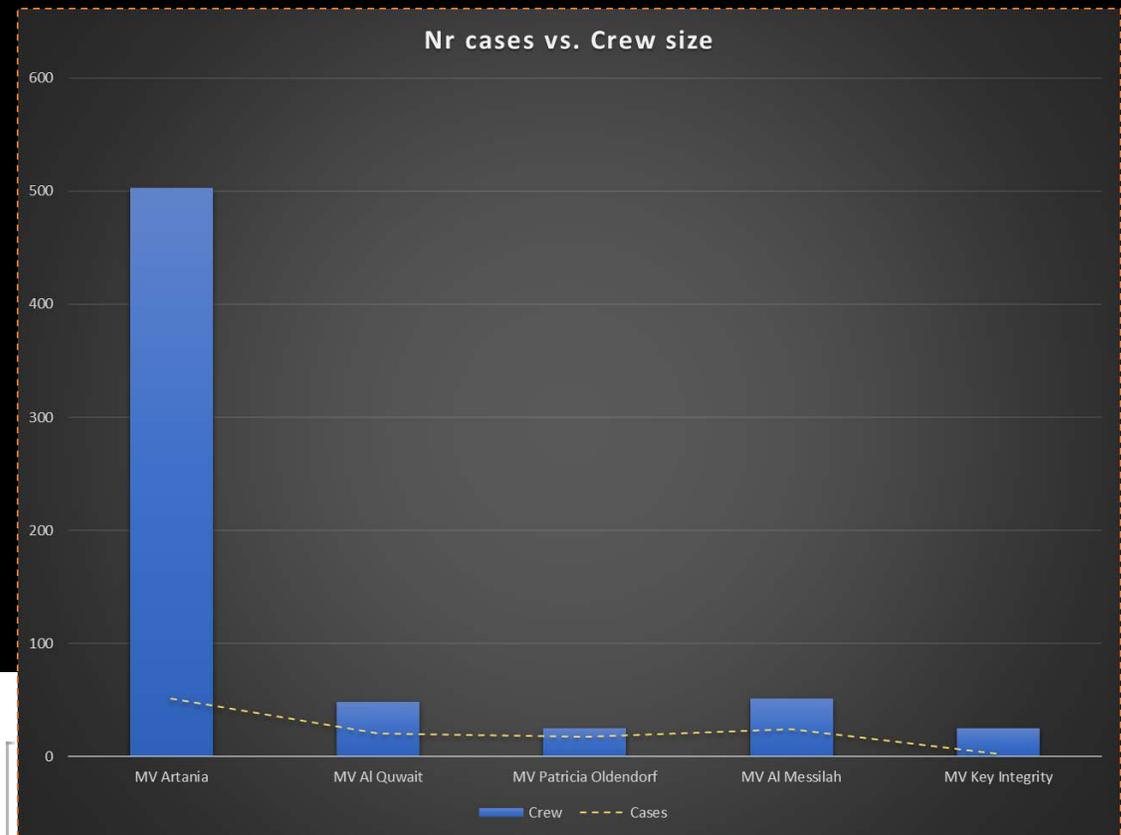
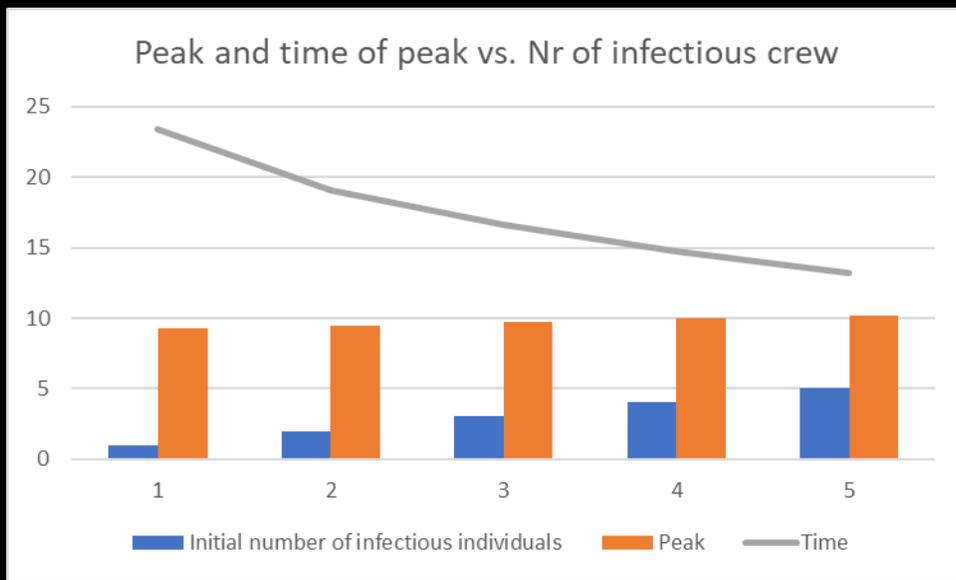
Negative test
Quarantine
14 days at sea
Temperature < 37.5
Screening questions
Non-COVID-19 related symptoms



Nr cases vs. Crew size



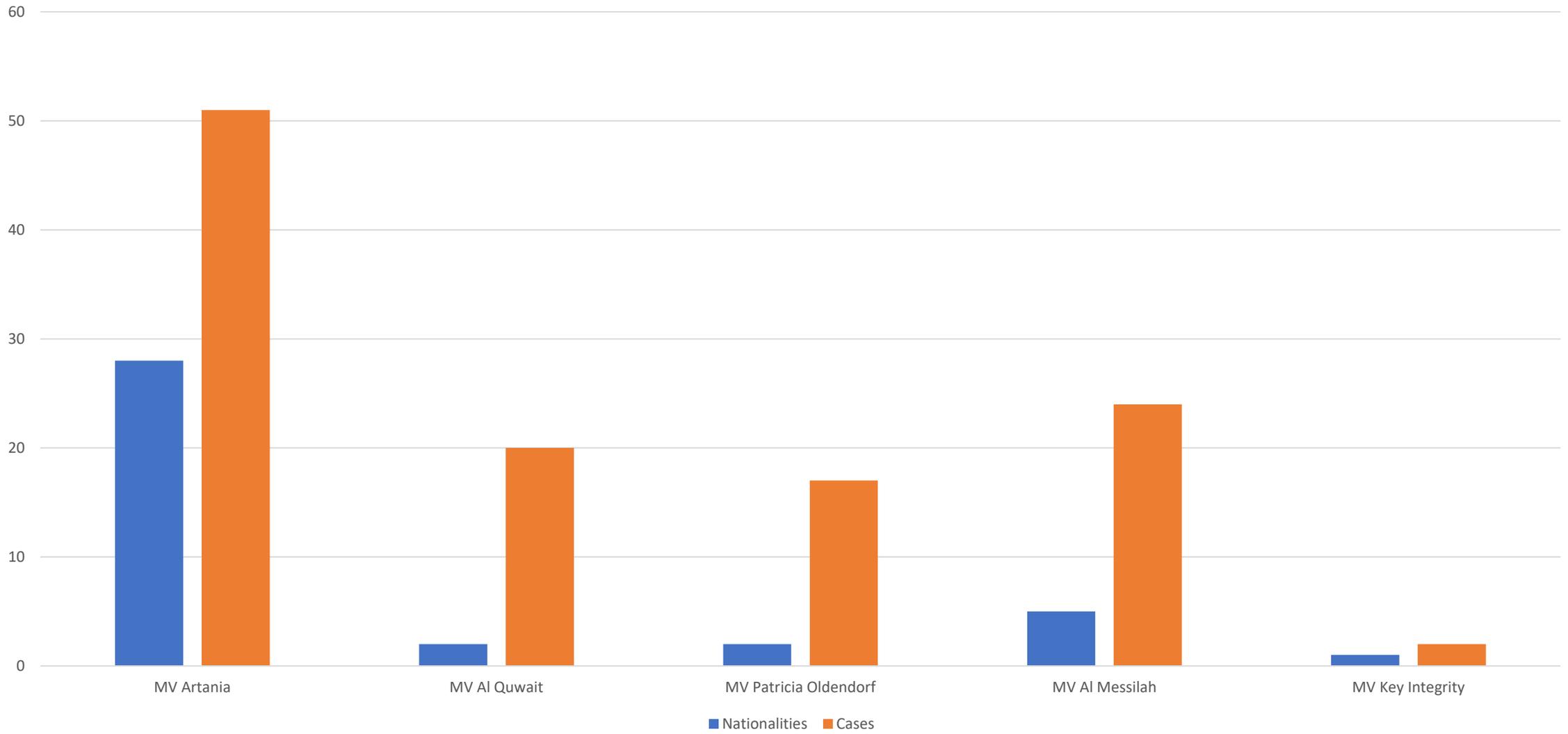
| | % Deaths of crew | % Deaths of cases |
|--|------------------|-------------------|
| | 0.20 | 1.96 |
| | 0.00 | 0.00 |
| | 0.00 | 0.00 |
| | 0.00 | 0.00 |
| | 0.00 | 0.00 |



Number of infectious individuals at any given time during an outbreak for different population sizes (N), assuming a single initially infectious individual. R_0 values estimated from USS Theodore Roosevelt.

Number of infectious individuals at any given time during an outbreak for different numbers of initially infectious individuals. (N) is the middle of the range (10-40) and $R_0 = 4$.

Nationalities vs. Nr Cases

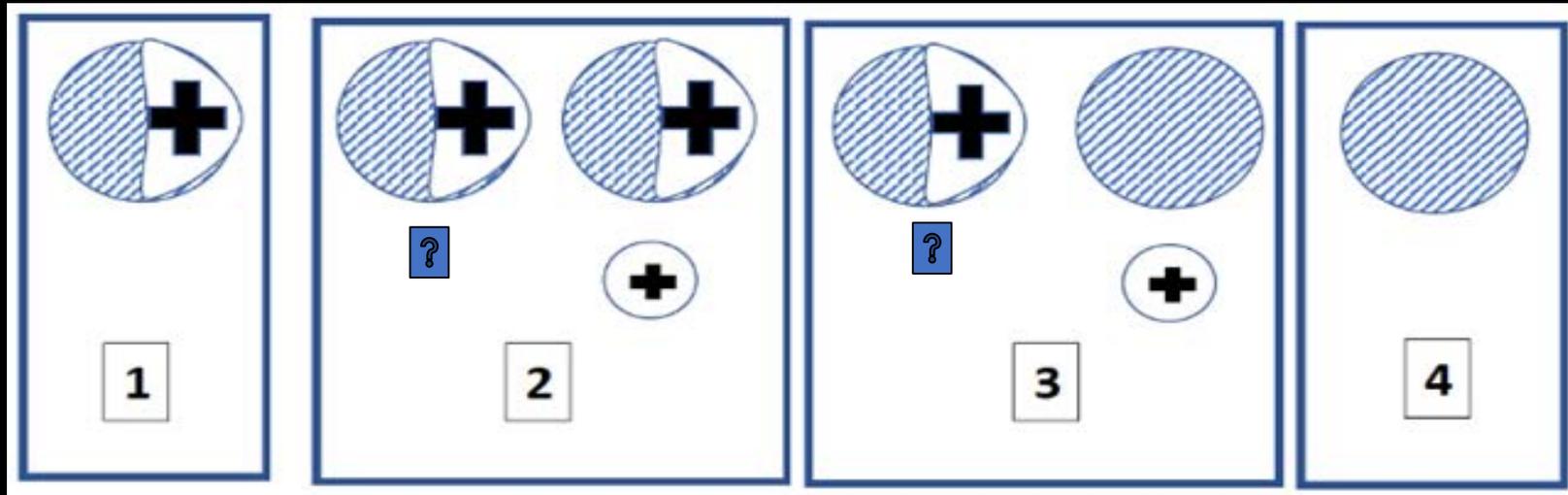


Quarantine Sequence Process

1. Vessel safety and security
2. Minimise disruption to trade
3. Protection of the shore-based maritime workers and wider community
4. Vessel access safety and control
5. Controlled reduction of the population on-board
6. Audited cleaning and sanitation
7. Controlled quarantine zones and isolation
8. Infection control and PPE requirements
9. Control of food preparation and delivery
10. Physical and mental health monitoring, SARS-CoV-2 testing, and welfare
11. Monitoring of quarantine (on-board and ashore)
12. Control of waste management
13. End of quarantine clearance
14. Control of financial aspects

Quarantine Sequence Process

1. Vessel *safety* and *security*
2. *Minimise* disruption to trade
3. *Protection* of the shore-based maritime workers and wider community
4. Vessel access *safety* and *control*
5. *Controlled* reduction of the population on-board
6. *Audited* cleaning and sanitation
7. *Controlled* quarantine zones and isolation
8. Infection *control* and PPE requirements
9. *Control* of food preparation and delivery
10. Physical and mental health *monitoring*, SARS-CoV-2 testing, and welfare
11. *Monitoring* of quarantine (on-board and ashore)
12. *Control* of waste management
13. *End* of quarantine clearance
14. *Control* of financial aspects



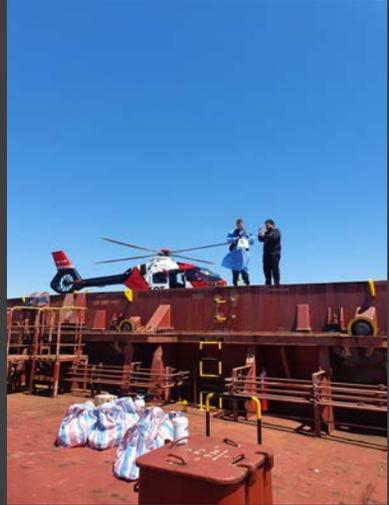
At the end of the Q period, each crew will be part of one of the following categories:

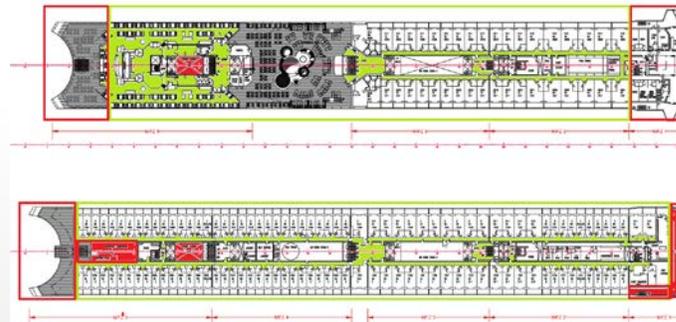
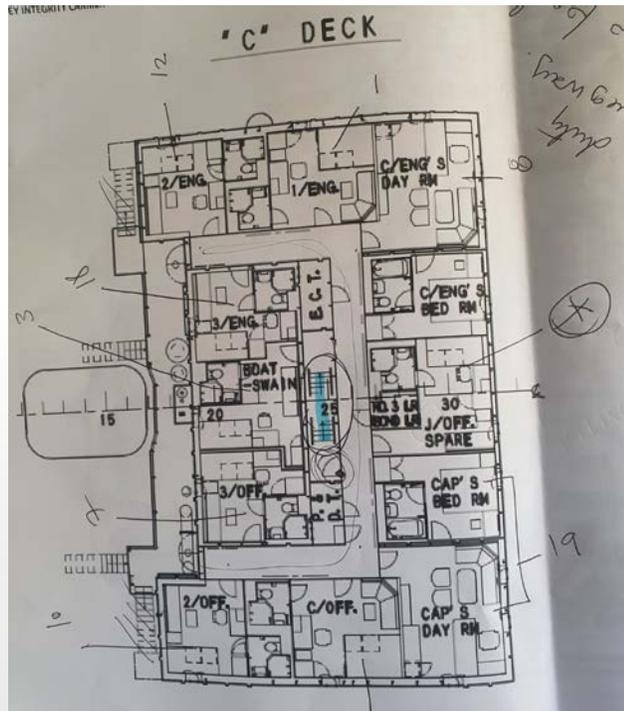
1. SARS-CoV-19 POSITIVE, on-going hospital admission;
2. SARS-CoV-19 POSITIVE, discharged from hospital, still SARS-CoV-19 POSITIVE, not unwell;
3. SARS-CoV-19 POSITIVE, discharged from hospital SARS-CoV-19 NEGATIVE;
4. SARS-CoV-19 POSITIVE, not unwell;
5. not unwell, not symptomatic, crew in hotel;
6. not unwell, not symptomatic, MSM crew on-board.

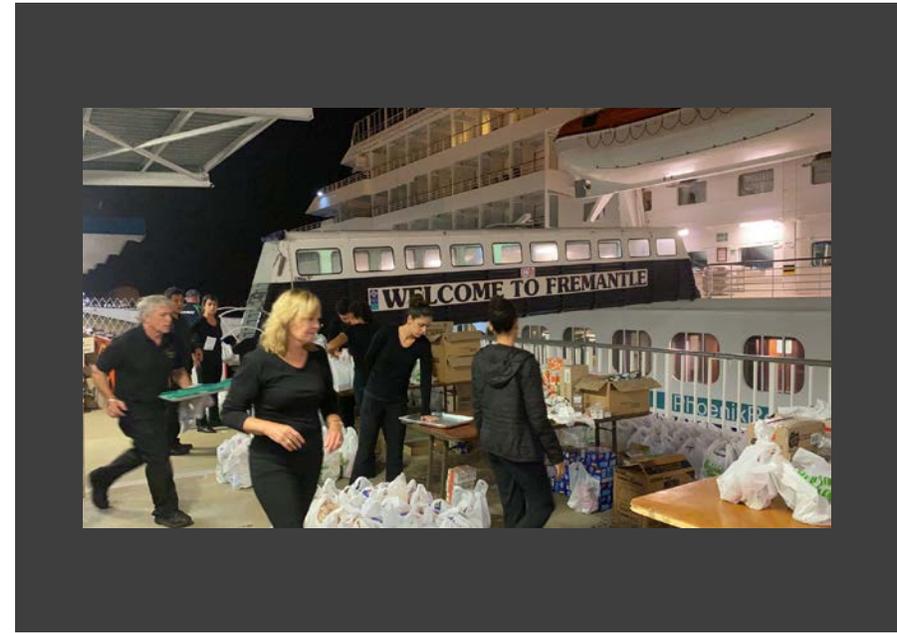
Two additional categories are possible if the MSM is breached and no alternative crew is sourced:

1. SARS-CoV-19 POSITIVE, not unwell, MSM crew on-board;
2. SARS-CoV-19 POSITIVE, discharged from hospital to vessel, SARS-CoV-19 NEGATIVE.













Numbers for Artania 9/4/2020:

Medical consults = 2
Telephone screens = 418
Face to face screens = 24
Swabs = 14
T/f to hospital = 1
T/f to hotel = 1

Artania Port Team 15/4/2020:

Day 12 of Quarantine

Total # of crew on ship = 404
Medical consults = 2
Telephone screens = 404
Face to face screens = 9
Number of crew members NOT screened today = 0
Swabs = 34 (incl 26 skeleton crew)
T/f to hospital = 0
T/f to hotel = 1 (new +ve)
Calls overnight last night = 1
Call backs overnight last night = 1





