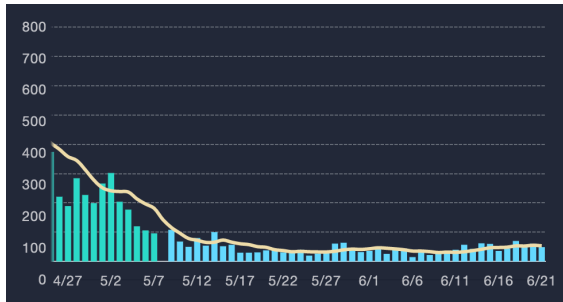


Situation report – COVID19; Japan, Tuesday 23rd of June 2020

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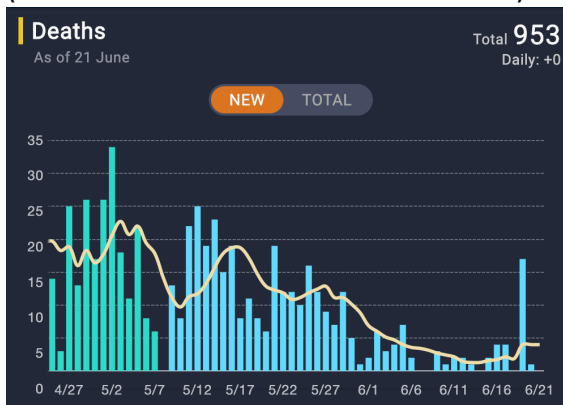
Current Situation in Japan

(National number of new diagnoses)



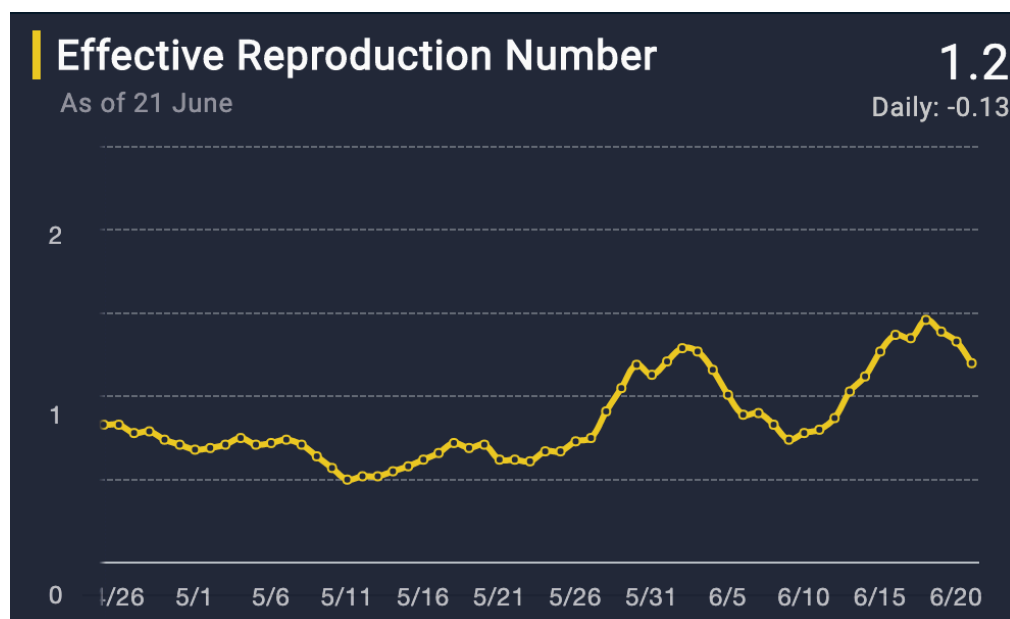
Case numbers across Japan (excluding Tokyo) remain low with limited clusters occurring, more commonly in urban areas. Most rural areas have either been COVID19 free for some time or have had very low numbers of cases occurring on a sporadic basis. Hokkaido continues to report the largest number of cases outside of Tokyo with approximately 10 new diagnoses per day over the past month.

(Total number of deaths from COVID19)



The total number of recorded deaths remains very low by international standards at less than 1,000 for the whole country. On a per capita basis Japan has had 8 deaths per million people, compared to 370 per million in the US and 628 per million in the UK.

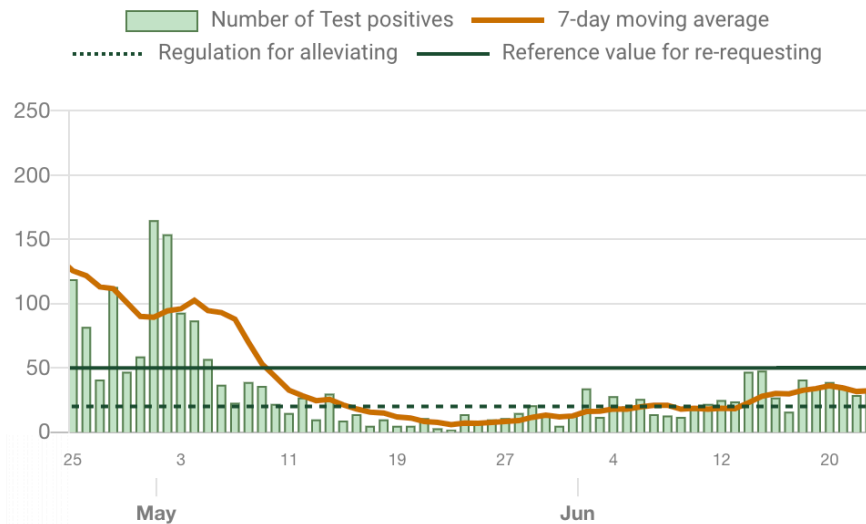
The effective reproduction number for Japan as a whole is slightly over 1.0, though would be significantly lower if case numbers for Tokyo were excluded.



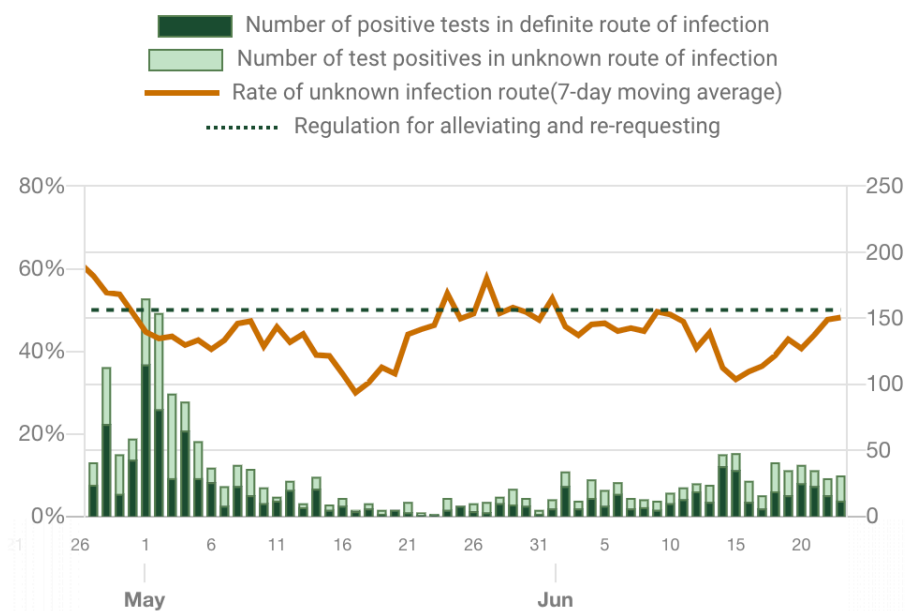
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Current Situation in Tokyo

The situation in Tokyo continues to be of greater concern than that in the rest of Japan. In the 7 days from the 15th to the 21st of June, 239 new cases were identified in Tokyo in comparison to 135 in the entire of the rest of the country. On a per capita basis, during this period infections were therefore occurring 14 times more frequently in the capital than in the remainder of the country. The gradual upward trend in number of infections seen since the end of May has continued:



As reported last week, staff who work in nightlife establishments such as host or hostess bars have continued to be diagnosed in disproportionately high numbers despite government requests to the public to avoid such establishments. It is however possible that the recent increase in case numbers identified in Tokyo represents a more proactive approach in testing nightlife staff. The proportion of cases of undetermined source has remained slightly below 50%:



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Wastewater Based Epidemiology (WBE) in Japan

This technique has been used to track infectious diseases such as polio for several decades and researchers have now identified wastewater surveillance as an effective tool in monitoring for the presence of COVID19. Many infected people have mild symptoms and so may not access testing, even when freely available. Additionally, concerns over stigmatization and potential loss of income for casual workers may actively deter those who are less unwell from seeking medical care. Furthermore, as normal economic activity resumes, a higher proportion of people with respiratory symptoms are likely to continue to work and interact with others on the assumption that their illness is a simple cold. As a consequence, subsequent increases in COVID 19 case numbers against the background of the winter influenza season may be detected at a later stage if testing acutely unwell patients is the only means of identifying a rise in infection.

As SARS-CoV2 is present in faecal matter as well as in respiratory secretions, it is readily identified by PCR testing of sewage water. Analysis of wastewater collected in Milan and Turin from as early as December 18th, 2019 has shown the presence of the virus, confirming that it had spread to Italy before even being identified in Wuhan.

Data from Yamanashi has now been published and confirms that the quantity of detectable viral RNA increased with rising numbers of cases in the community. This raises the possibility that WBE could be used both as a surveillance tool for monitoring the level of infection and also as an early warning system to help detect recurrence of disease in areas which have been COVID 19 free for some time.

References

Reported Caseload Graphs and data sourced from MHLW as reported by Toyo Keizai and the Tokyo metropolitan government –

<https://toyokeizai.net/sp/visual/tko/covid19/en.html>
<https://stopcovid19.metro.tokyo.lg.jp/en/>

First environmental surveillance for the presence of SARS-CoV-2 RNA in wastewater and river water in Japan -

<https://www.sciencedirect.com/science/article/pii/S0048969720339279>

Resources

How to get help if you suspect that you have COVID19 (Tokyo residents)

<https://stopcovid19.metro.tokyo.lg.jp/en/flow>