



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

September 21, 2017

MEDICAL ADVISORY: MUMPS OUTBREAK VACCINATION DOSE RECOMMENDATION

Dear Healthcare Provider:

As of September 21, 2017, there have been 384 confirmed cases of mumps reported to the Hawaii Department of Health (HDOH). Since the onset of the current mumps outbreak in March 2017, case incidence rates have remained steady and show no signs of decreasing. Nearly 60% of the cases have occurred in adults aged  $\geq 18$  years (median age, 20 years). In addition, HDOH has received reports of complications of mumps, including orchitis and hearing loss.

HDOH has been assessing the peer-reviewed literature and our outbreak data as well as discussing mumps immunity with national subject matter experts. Recent<sup>1</sup> and past findings<sup>2</sup> from other outbreaks have suggested an additional MMR dose may be protective. Therefore, HDOH recommends the following **for persons born in 1957 or later,<sup>3</sup> especially if they live or work in crowded conditions:**

No. of previous documented, valid MMR doses	Condition for receiving outbreak MMR dose now
2	If $\geq 10$ years since the last dose
1	If $\geq 5$ years since the last dose
None or Unknown	Administer dose now

This recommendation replaces previous HDOH vaccination recommendations (i.e., [June 1, 2017 advisory](#)) and applies only for the duration of our mumps outbreak. Providers are encouraged to keep updated via the HDOH mumps outbreak website, <http://health.hawaii.gov/docd/departement-of-health-investigating-mumps-cases/>.

<sup>1</sup> Cardemil *et al.* Effectiveness of a third dose of MMR vaccine for mumps outbreak control. *NEJM*, 7 Sept 2017.

<sup>2</sup> Ogbuanu *et al.* Impact of a third dose of measles-mumps-rubella vaccine on a mumps outbreak. *Pediatrics*, Dec 2012.

<sup>3</sup> And without previous mumps infection

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Previous studies and findings from other US outbreaks have suggested waning immunity may be observed in some persons after mumps vaccination; our outbreak data also suggest this. Mumps immunity is also complicated by the fact that some persons may remain susceptible despite age appropriate vaccination (two MMR doses are 88% effective at preventing disease; one dose is 78% effective). Also, force of infection likely plays a role in transmission as the risk of spreading the mumps virus increases with longer exposure and closer contact (e.g., crowded environments). However, vaccination does provide protection for most as demonstrated by the limited numbers of cases among our highly vaccinated individual school populations.<sup>4</sup> Thus, vaccine remains the best way to prevent mumps.

If you have any questions, you may contact us at one of the numbers below. Please remember to report any *clinically suspected* cases of mumps immediately, while the patient is still in your office.

- Oahu (Disease Reporting Line)..... (808) 586-4586
- Maui District Health Office..... (808) 984-8213
- Kauai District Health Office ..... (808) 241-3563
- Big Island District Health Office (Hilo)..... (808) 933-0912
- Big Island District Health Office (Kona) ..... (808) 322-4877
- After hours on Oahu ..... (808) 566-5049
- After hours on neighbor islands ..... (800) 360-2575 (toll free)

For more information regarding what to do if you suspect mumps infection, visit <https://health.hawaii.gov/docd/files/2017/05/Mumps-Provider-Info.pdf> or [http://health.hawaii.gov/docd/disease\\_listing/mumps/](http://health.hawaii.gov/docd/disease_listing/mumps/) (under “Information for Clinicians”).

We appreciate your ongoing vigilance and efforts to help protect Hawaii’s population during this mumps outbreak.

Sincerely,



Sarah Y. Park, MD, FAAP  
State Epidemiologist  
Hawaii Department of Health

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<sup>4</sup>Hawaii’s average MMR coverage for kindergarteners is ~92%. See <https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/data-reports/coverage-reports/2015-16.html>.

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