









How to Make a Case Map for Outbreak Investigations

Partners in Health

Starting Template

Event box

-  PCR confirmed, asymptomatic (date of sample collection)
-  PCR confirmed, symptomatic (date of onset)
-  Asymptomatic contacts (date of exposure)
-  Symptomatic contacts (date of onset of symptoms)
-  Partially vaccinated contact (date of exposure)
-  Fully vaccinated contact (date of exposure)
-  Partially vaccinated case (date of symptom onset or sample collection)
-  Fully vaccinated case (date of symptom onset or sample collection)

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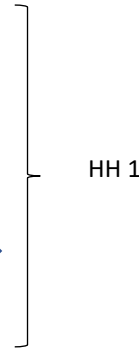


- PCR confirmed, asymptomatic (date of sample collection)
- PCR confirmed, symptomatic (date of onset of symptoms)
- Asymptomatic contacts (date of exposure)
- Symptomatic contacts (date of onset of symptoms)

This can help show exposure over time in a location







This can help show relationships





This can help show the timeline of the cluster




1. **Symptomatic cases** are mapped on the day they develop symptoms.
2. **Asymptomatic cases** are mapped on the day they are tested.
3. **Symptomatic contacts** are mapped on the day they develop symptoms.
4. **Asymptomatic contacts** are mapped on their last day of exposure.

-  PCR confirmed, asymptomatic (date of sample collection)
-  PCR confirmed, symptomatic (date of onset of symptoms)
-  Asymptomatic contacts (date of exposure)
-  Symptomatic contacts (date of onset of symptoms)

 This case developed symptoms on day 7. This does not indicate a test date.

 This case was tested positive on day 9 but never developed symptoms.

This contact developed symptoms on day 11. This does not indicate a test date or result. 

This contact's last exposure was on day 13. They never developed symptoms. This does not indicate a test date or result. 

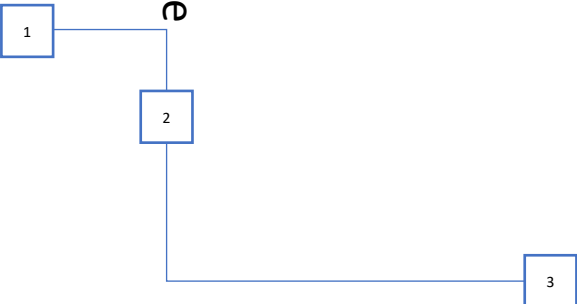
Boxes should have their own horizontal space

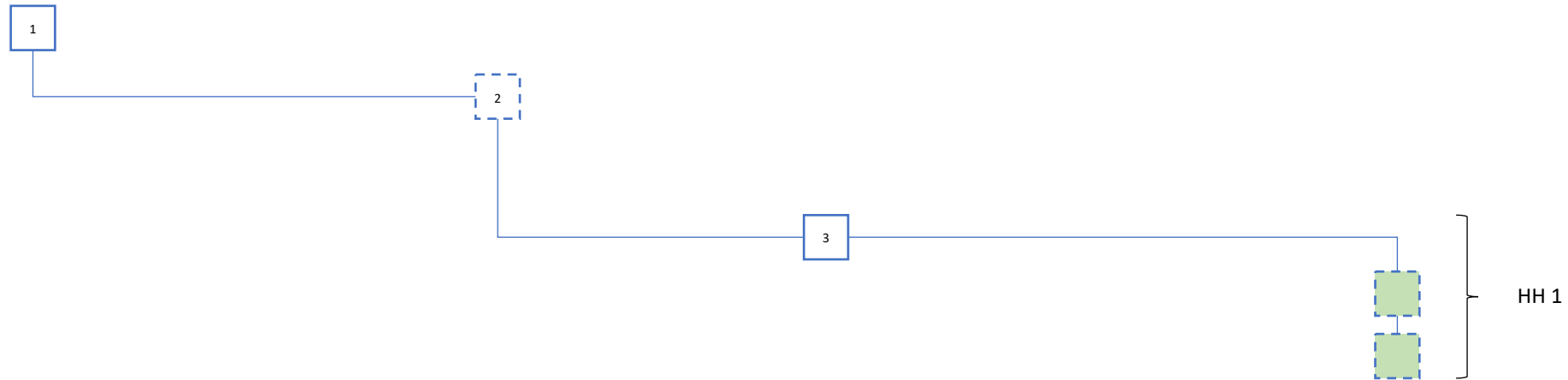
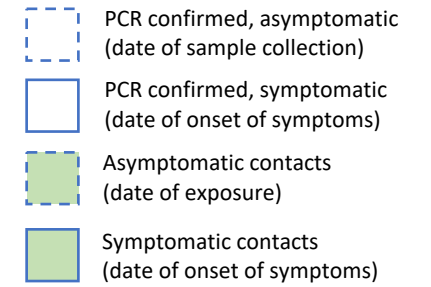


- PCR confirmed, asymptomatic (date of sample collection)
- PCR confirmed, symptomatic (date of onset of symptoms)
- Asymptomatic contacts (date of exposure)
- Symptomatic contacts (date of onset of symptoms)

Vertical lines show Exposure

Horizontal lines show transmission

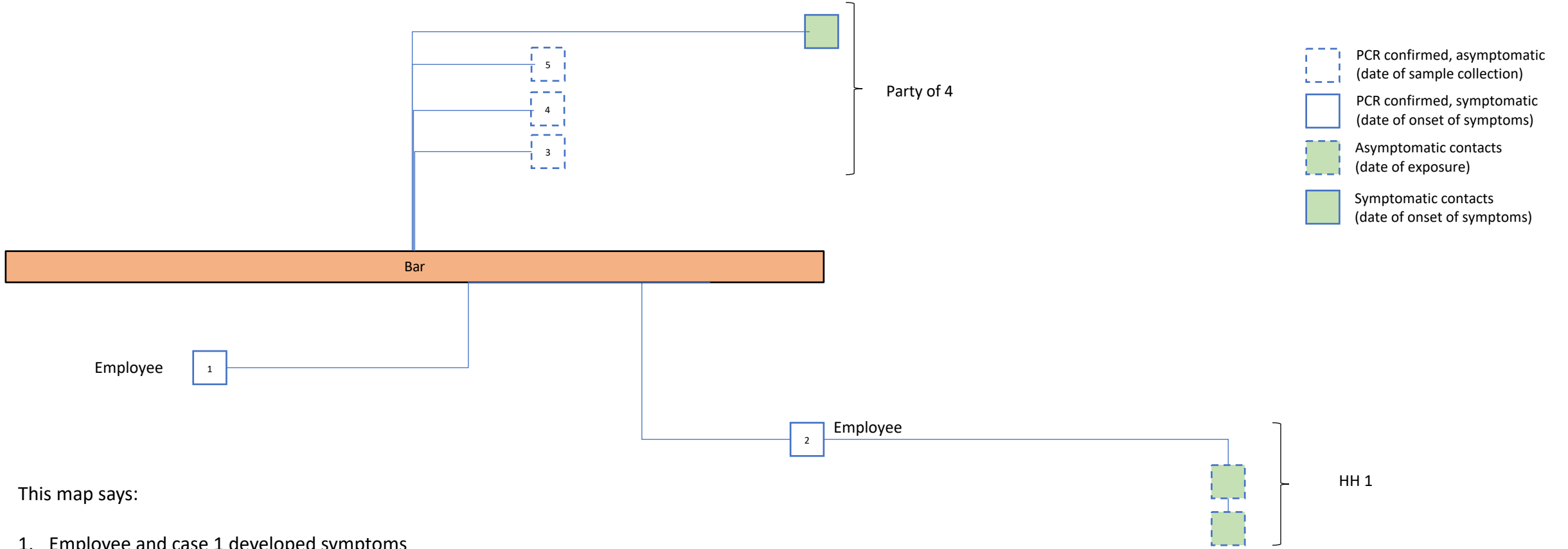




This map says:

1. Case 1 developed symptoms on day 3 and exposed case 2 on day 3.
2. Case 2 never developed symptoms but tested positive on day 7.
3. Case 2 exposed case 3 on day 7.
4. Case 3 developed symptoms on day 10.
5. The household contacts of case 3 were last exposed on day 15 and have not developed symptoms.

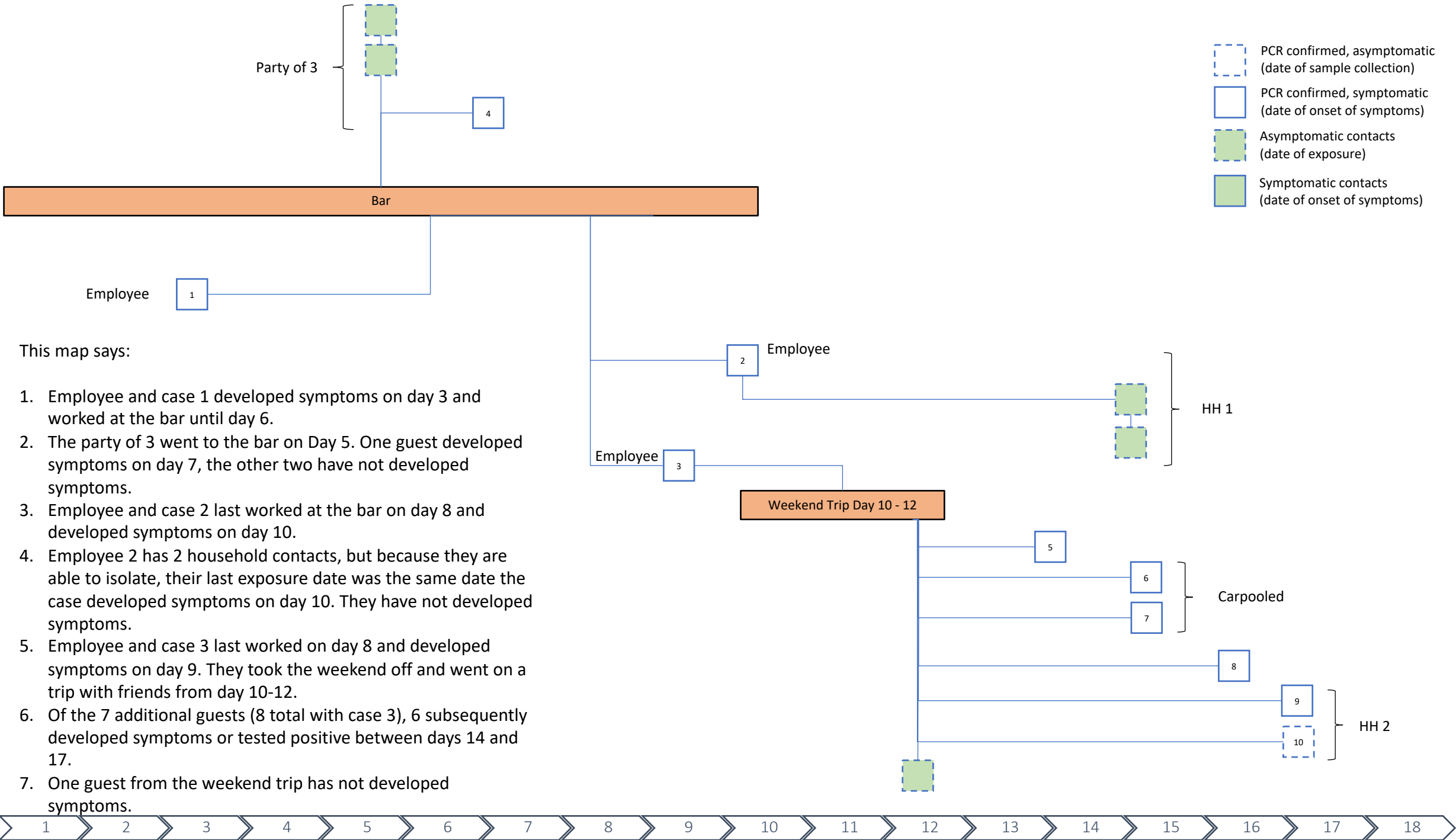




This map says:

1. Employee and case 1 developed symptoms on day 3 and worked at the bar until day 6.
2. The party of 4 went to the bar on Day 5. Three guests got tested on day 7 and were all positive but asymptomatic. The 4th guest developed symptoms on day 10 but has unknown test results.
3. Employee and case 2 last worked at the bar on day 8 and developed symptoms on day 10.
4. Employee 2 has 2 household contacts who were last exposed on Day 15 but have not developed symptoms.

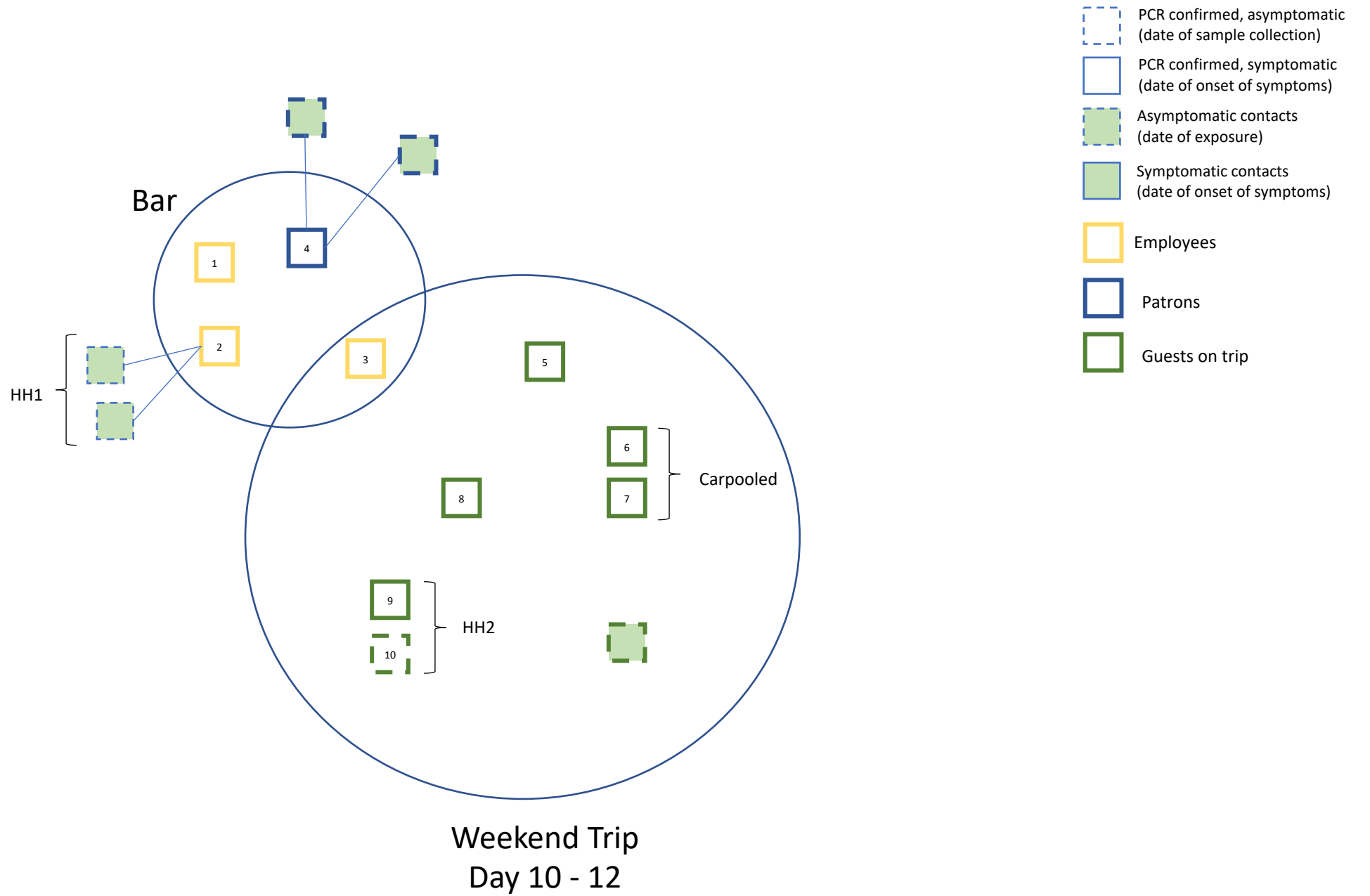




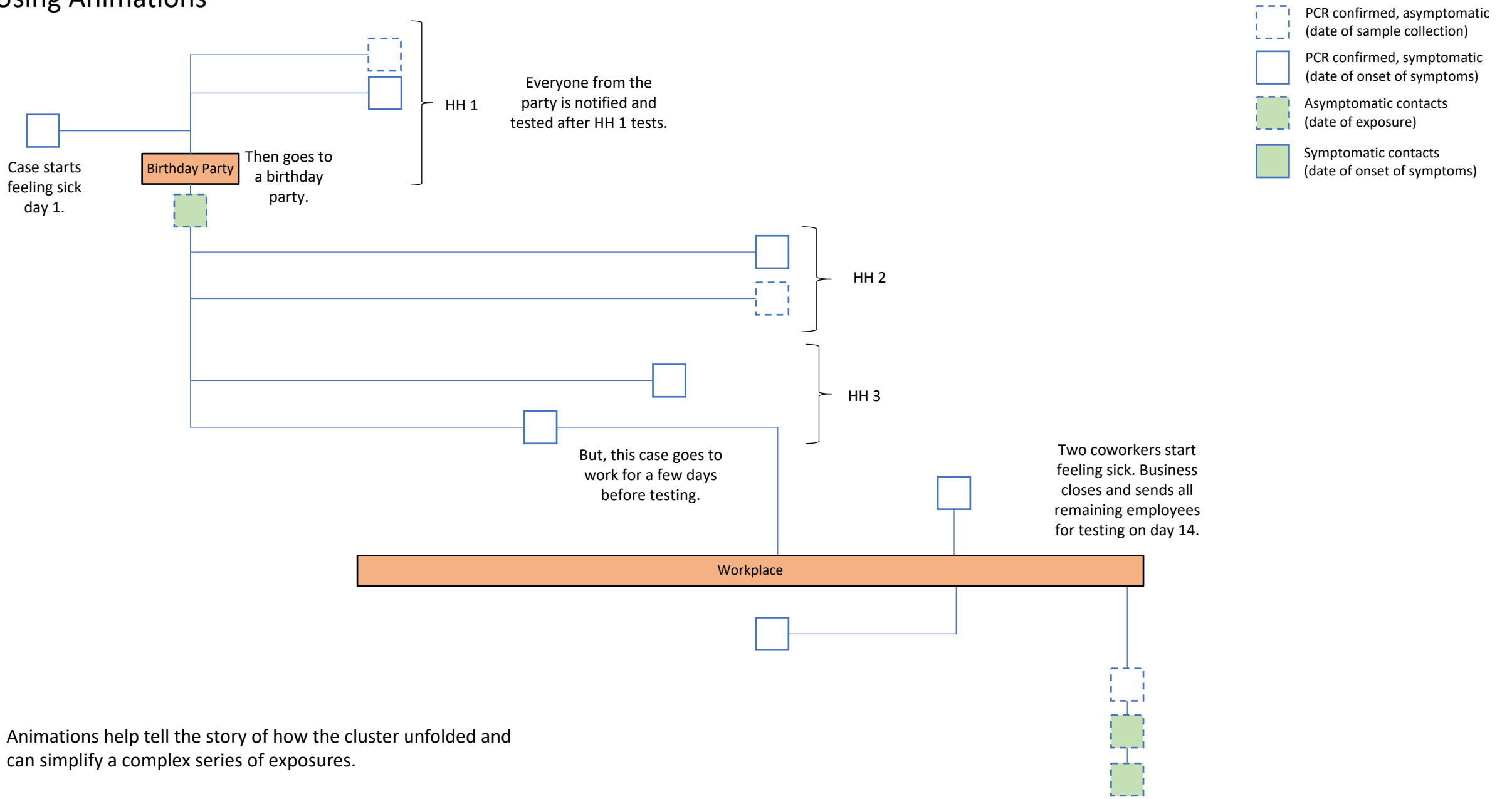
This map says:

1. Employee and case 1 developed symptoms on day 3 and worked at the bar until day 6.
2. The party of 3 went to the bar on Day 5. One guest developed symptoms on day 7, the other two have not developed symptoms.
3. Employee and case 2 last worked at the bar on day 8 and developed symptoms on day 10.
4. Employee 2 has 2 household contacts, but because they are able to isolate, their last exposure date was the same date the case developed symptoms on day 10. They have not developed symptoms.
5. Employee and case 3 last worked on day 8 and developed symptoms on day 9. They took the weekend off and went on a trip with friends from day 10-12.
6. Of the 7 additional guests (8 total with case 3), 6 subsequently developed symptoms or tested positive between days 14 and 17.
7. One guest from the weekend trip has not developed symptoms.





Using Animations



- Animations help tell the story of how the cluster unfolded and can simplify a complex series of exposures.

Summary

- Each box should have its own horizontal space
- Vertical lines represent exposure dates
- Horizontal lines represent transmission events
- Relationships can be explained through brackets and free text
- Contact boxes do not indicate test results: green contact boxes stand for negative test results or not yet tested; they only indicate symptoms if present
- Exposures over time can be represented through 'event' boxes
- Calendar days help to show cluster growth over time
- Cluster maps can help to visually explain transmission events or risky behaviors
- Animations can help explain a complex series of exposures.
- Summary slides and lessons learned help to reinforce the message