

Youth to Youth HPV Prevention in High School

A project of the Oregon School Based Health
Alliance funded by the Knight Cancer Institute
Community Partnership Program



Youth to Youth HPV Prevention in High School

In 2019, the Oregon School Based Health Alliance (OSBHA) received funding from the Knight Cancer Institute Community Partnership Program to implement a peer-to-peer HPV prevention education session in two Portland-area high schools.

SESSION INFORMATION

The HPV prevention education session consisted of information about the virus, the HPV vaccine, and related topics (e.g., minor rights to access and consent to health care, where to get the HPV vaccine, and talking about HPV with friends and partners). The session was presented by OSBHA Student Health Advocates to seven health classes in November 2019.

EVALUATION METHODS

To measure impacts on student knowledge, confidence, and intent to receive the vaccine, students completed anonymous surveys immediately before and after the session as well as approximately two months later (in January 2020). Survey questions are presented along with results in this report, and a full version of the survey is available in Appendix 1.

In addition, HPV vaccination rates at the associated Student Health Center were compared for the 2018-19 and 2019-20 school years to identify progress toward the project's ultimate goal of increasing youth uptake of the HPV vaccine.

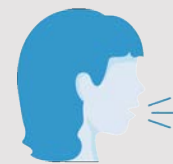
SUMMARY OF RESULTS

This report summarizes the results of the evaluation methods described above. Overall, following the education session, students showed increases in knowledge of their rights, where to get the HPV vaccine, cancers linked with HPV, and modes of HPV transmission. Additionally, students showed more confidence in talking to their healthcare providers about confidentiality as well as talking to their friends and partners about the HPV vaccine. Further, more students reported intent to receive the vaccine, and Student Health Center data shows an increased number of HPV vaccinations in the months following the education session.

HPV Prevention Education Session



Led by OSBHA Student Health Advocates



Presented to seven Portland-area high school health classes



Survey responses:

204

Pre

202

Post

188

Follow-up

KNOWLEDGE

Age of medical consent

Students showed an increase in knowledge of age 15 as the age of medical consent in Oregon (see Figure 1). From Pre to Post (immediately after the education session), the percentage of students who correctly identified the age of medical consent increased from 20% to 82%. At follow-up, this number dropped to 49%, which was still over two times higher than the percentage of students who answered correctly prior to the education session.

Figure 1: How old do you need to be before you can get medical services, including vaccines, on your own (without parent/guardian permission) from a healthcare provider? (Percent of responses)

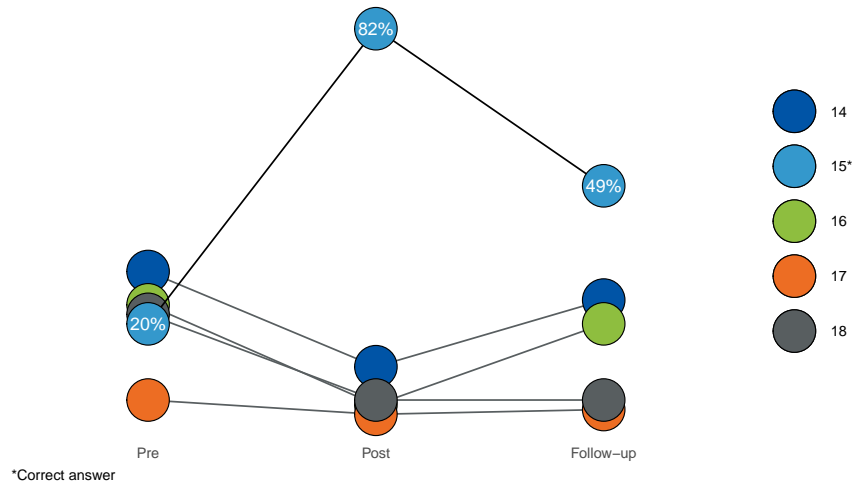
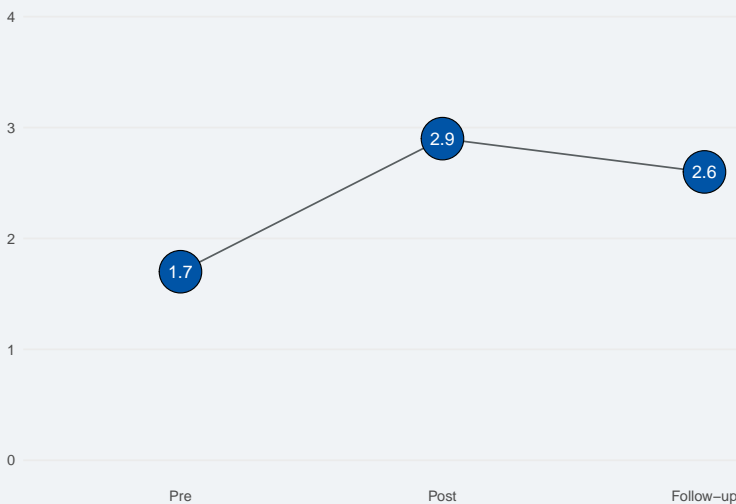


Figure 2: Where can you get the HPV vaccine? (check all that apply)
Average number of locations identified out of 4



Where to get the HPV vaccine

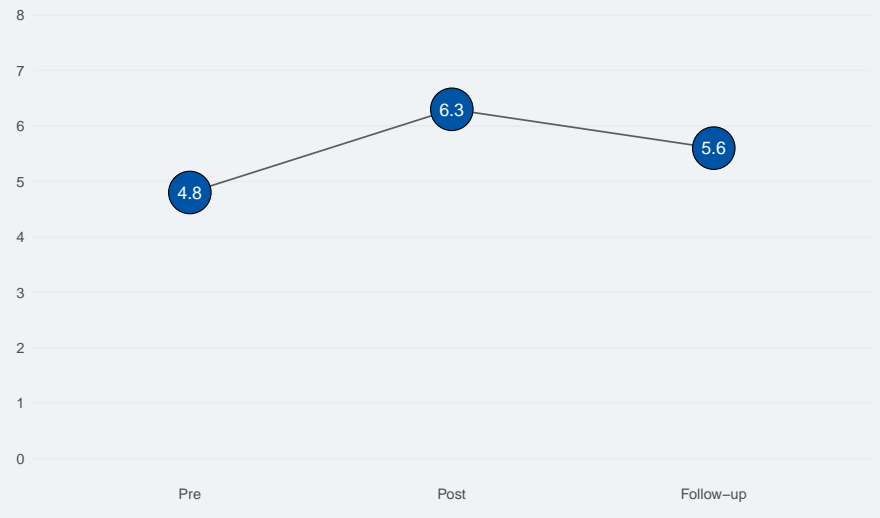
Students showed an increase in knowledge of where to receive the HPV vaccine. Given the four response options of Student Health Center, doctor’s office, pharmacy, and dentist, all of which can provide the HPV vaccine, students prior to the education session were able to correctly identify an average of 1.7 locations where they could receive the vaccine. After the presentation and at follow-up, this number increased to 2.9 and 2.6, respectively, suggesting that the presentation helped students identify an average of approximately one additional location where they could receive the HPV vaccine (see Figure 2). For changes in individual locations selected, see the chart in Appendix 2. Most notably, the percentage of students who said they didn’t know where to get the HPV vaccine decreased from 19% at Pre to 4% at Post and 6% at Follow-up.

Cancers linked with HPV

Students showed an increase in knowledge of the types of cancer associated with HPV. The survey asked students which cancers could be linked with HPV and provided eight response options: vaginal, cervix, penis, anal, throat, and vulva (all of which are linked with HPV) as well as breast and stomach (which are not). Answers were considered correct if students checked a cancer linked with HPV or left unchecked a cancer *not* linked with HPV.

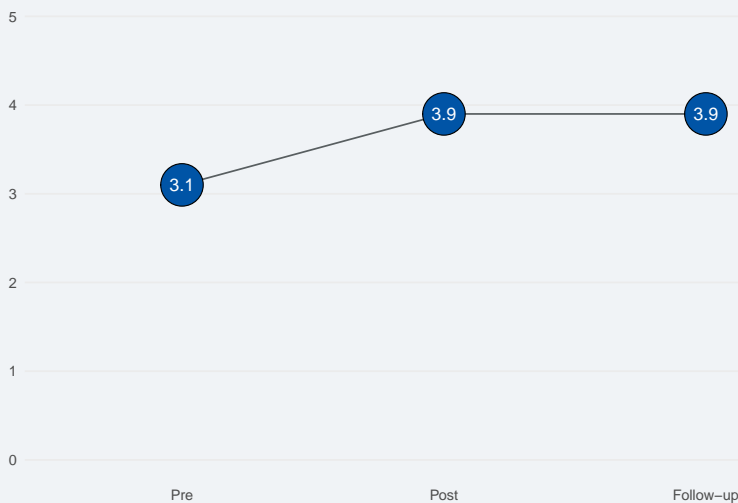
Prior to the presentation, students were able to correctly identify an average of 4.8 out of 8 cancers linked with HPV. Immediately after the presentation, this number increased to 6.3 out of 8, and at follow-up the number dropped to 5.6 (see Figure 3).

Figure 3: What cancers can be linked with the HPV virus? (check all that apply)
Average number correctly identified out of 8



These numbers suggest that the education session helped students correctly identify approximately one additional type of cancer linked with HPV. For changes in individual cancer types selected, see the chart in Appendix 2.

Figure 4: HPV is transmitted through... (check all that apply)
Average number of responses correctly identified out of 5



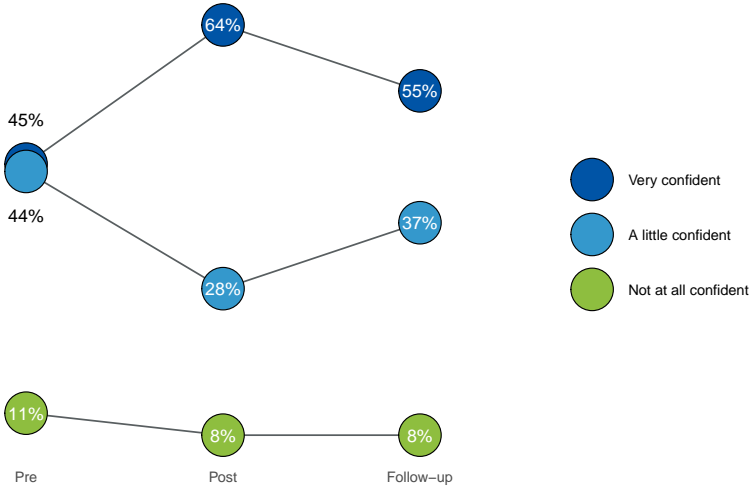
Modes of HPV transmission

Students showed an increase in knowledge of HPV transmission. Similar to cancer types, the survey asked students how HPV could be transmitted and provided five response options: vaginal sex, anal sex, oral sex, and skin to skin contact of infected areas (which are true) as well as kissing (which is false).

Prior to the presentation, students were able to correctly identify an average of 3.1 out of 5 ways in which HPV is transmitted. This number increased to 3.9 immediately after the presentation and at follow-up, suggesting that the session helped students correctly identify an average of approximately one additional mode of HPV transmission (see Figure 4).

For individual responses selected, see the chart in Appendix 2. Students were most likely to identify and retain vaginal, anal, and oral sex as modes of HPV transmission.

Figure 5: How confident would you feel about talking with your healthcare provider about confidentiality (i.e., asking them whether or not they will share information with your parents/guardians)?



CONFIDENCE

Following the education session, students showed increased confidence in talking to their healthcare provider about confidentiality as well as talking to both their friends and partner(s) about HPV (see Figures 5, 6, and 7). Confidence in all three areas showed a pattern of increasing from Pre to Post and then dropping slightly at Follow-up, but confidence at Follow-up remained higher than that measured before the education session.

Students showed slightly higher confidence in talking to healthcare providers about confidentiality than in talking to sexual partners or friends about HPV.

Figure 6: How confident would you feel about talking with your friends about HPV?

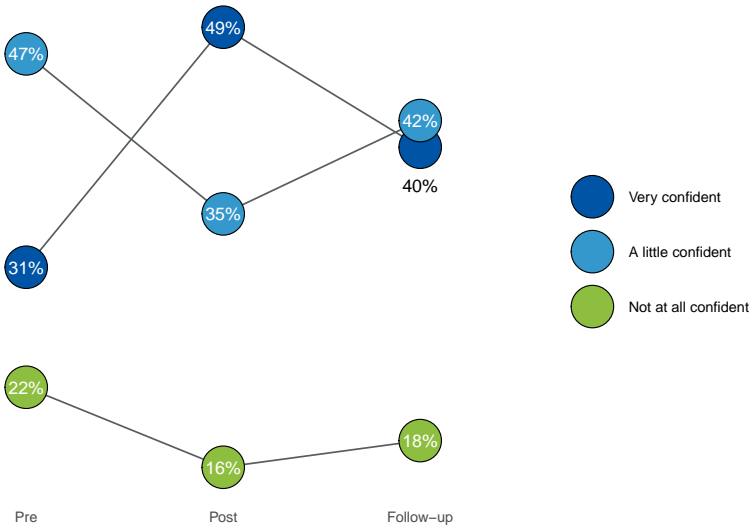
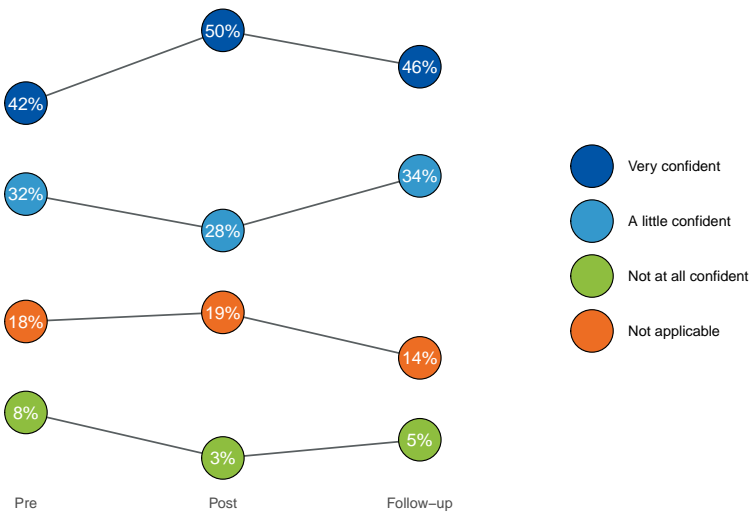


Figure 7: How confident would you feel about talking with your sexual partner(s) about HPV?



INTENT TO RECEIVE THE VACCINE

Of those who said they had not received the HPV vaccine or didn't know, the percentage of students who planned to get it increased after the education session (see Figure 8). Interestingly, the percentage of students who *didn't* plan to receive the vaccine (i.e., answered no) also increased. In either direction, the education session appeared to make students more resolute about their decision, as the largest change was a decrease in the percentage of students who said they didn't know whether or not they planned to receive the vaccine.

Students who said they hadn't received the HPV vaccine were also asked why not. Responses are shown in Table 1.

STUDENT HEALTH CENTER VACCINATIONS

Vaccination data from the associated Student Health Center shows an increase in HPV vaccinations in the three months following the education session (December-February) compared to the same three months in the prior school year (see Figure 9). However, with the school closures implemented in March 2020 as part of the COVID-19 response, and without an understanding of the variations in vaccination numbers from year to year, it is difficult to determine the significance of this increase.

Student Health Center HPV vaccinations:

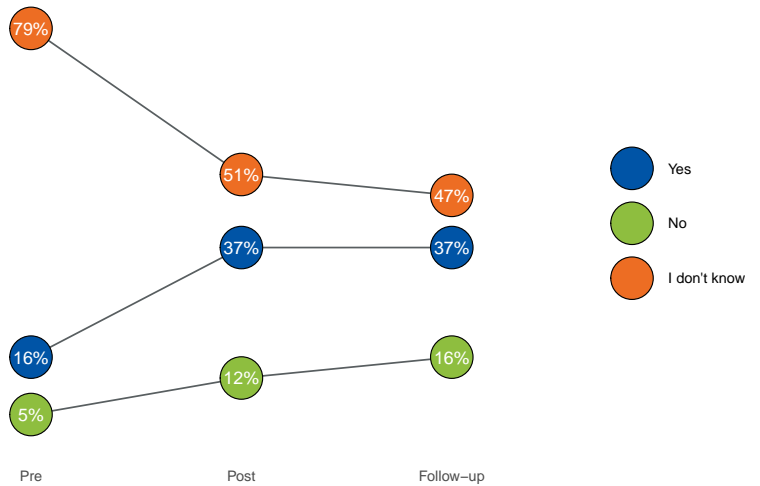
December-February 2019-2020:

133

December-February 2018-2019:

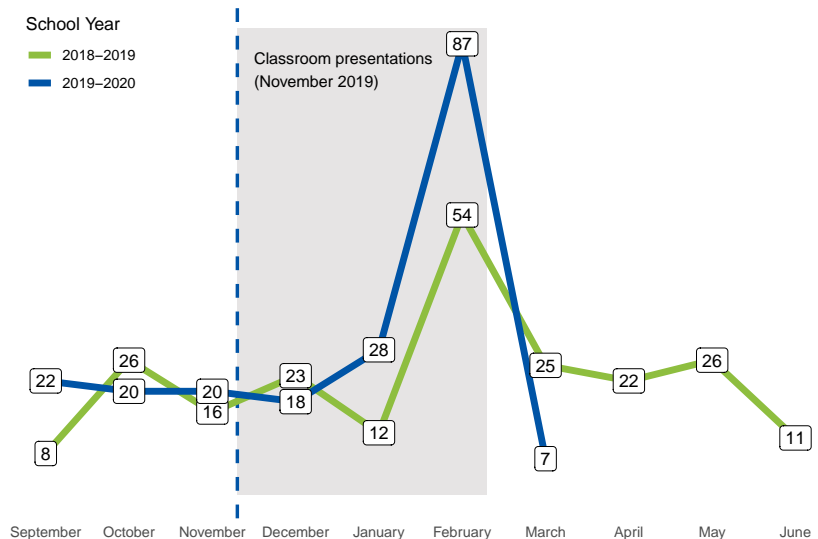
89

Figure 8: If you haven't received the vaccine, do you plan to get it?
Filtered to students who answered No or I don't know to having received the vaccine



Response	Number	Response	Number
I don't know	42	I didn't know about it	4
I don't know if I've gotten it	11	I don't think I need it	3
No time/busy	6	I'm scared to get it/don't like shots	2
I haven't thought about it	5	Other (1 each)	3
Some adversarial/anti-vaccination response	5	Indeterminate response (e.g., "yes," "because")	11

Figure 9: Health Center HPV Vaccine Data



CONCLUSION

Overall, the HPV prevention education session resulted in the following changes:

- Increased knowledge of minor rights regarding access and consent to health care
- Increased knowledge of where to receive the HPV vaccine
- Increased knowledge of cancers linked with HPV
- Increased knowledge of how HPV is transmitted
- Increased confidence in talking to healthcare providers about confidentiality
- Increased confidence in talking to friends and partner(s) about HPV
- More resolute plans to receive or not receive the HPV vaccine
- More Student Health Center HPV vaccinations than the previous school year

While many of these gains showed a slight decrease after a two-month follow-up, in all cases they remained higher than before the education session.

One limitation to this summary of results is that it accounts for changes at the group, rather than individual, level. Although attempts were made to anonymously match Pre, Post, and Follow-up surveys with a self-generated code, not enough surveys were able to be

matched to show individual changes across the timepoints. Additionally, because surveys were anonymous, it cannot be guaranteed that the same students completed the survey at all three timepoints (and in fact, the number of survey responses differs slightly between Pre, Post, and Follow-up).

Further, while Student Health Center data show an increase in HPV vaccinations in the three months following the education session over the same three months in the previous school year, it is not known how this compares to other school years, nor does it account for students who may have received the HPV vaccine elsewhere. It also is not known how vaccination rates in March 2020 and beyond were affected by the COVID-19 crisis.

Despite these limitations, results suggest that the HPV prevention education session accomplished its goals of increasing HPV vaccination rates and related constructs including knowledge and confidence. Future peer-to-peer education efforts should continue to evaluate these outcomes for quality improvement and sustainability.



HPV Survey

Your answers will be anonymous. However, to allow us to link your responses on the pre- and post-survey, please answer the following questions to create a unique code:

What is the day of your birth? ____ ____

(For example, if your birthday is on October 23rd, you would write "23")

What are the last two digits of your phone number? ____ ____

(For example, if your telephone number is 555-123-4567, you would write "67")

Your opinions

How confident would you feel about talking with your healthcare provider about confidentiality (i.e., asking them whether or not they will share information with your parents/guardians)?

- Very confident
- A little confident
- Not at all confident

How confident would you feel about talking with your friends about HPV?

- Very confident
- A little confident
- Not at all confident

How confident would you feel about talking with your sexual partner(s) about HPV?

- Very confident
- A little confident
- Not at all confident
- Not applicable

Some facts

What cancers can be linked to the HPV virus? (check all that apply)

- Anal
- Breast
- Cervix
- Throat
- Penis
- Stomach
- Vaginal
- Vulva



HPV is transmitted through... (check all that apply)

- Kissing
- Oral sex
- Vaginal sex
- Anal sex
- Skin-to-skin contact of infected areas

How old do you need to be before you can get medical services, including vaccines, on your own (without parent/guardian permission) from a healthcare provider?

- 14
- 15
- 16
- 17
- 18

Where can you get the HPV vaccine? (check all that apply)

- Student Health Center
- Doctor's office
- Pharmacy
- Dentist
- I don't know

Have you received the HPV vaccine?

- Yes – I've had all of the shots
- Yes – I've had some, but not all of the shots
- No
- I don't know

If you answered yes to the question above, you are done with the survey. Thank you!

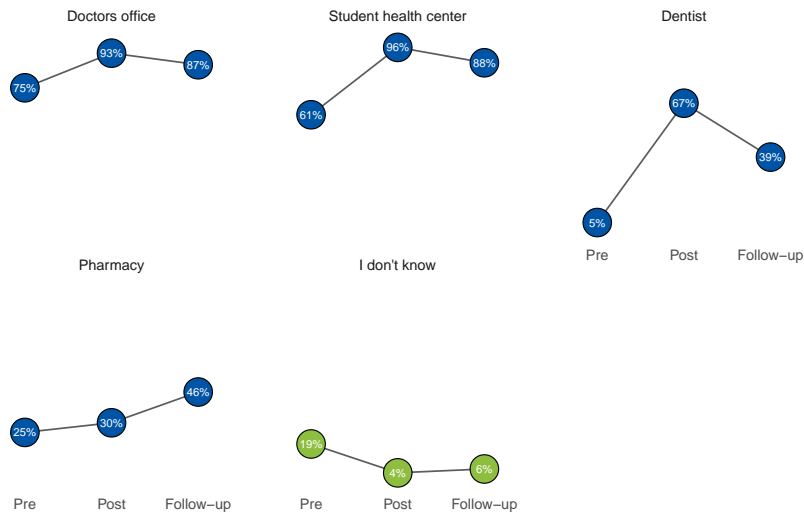
If you haven't received the vaccine, do you plan to get it?

- Yes
- No
- I don't know

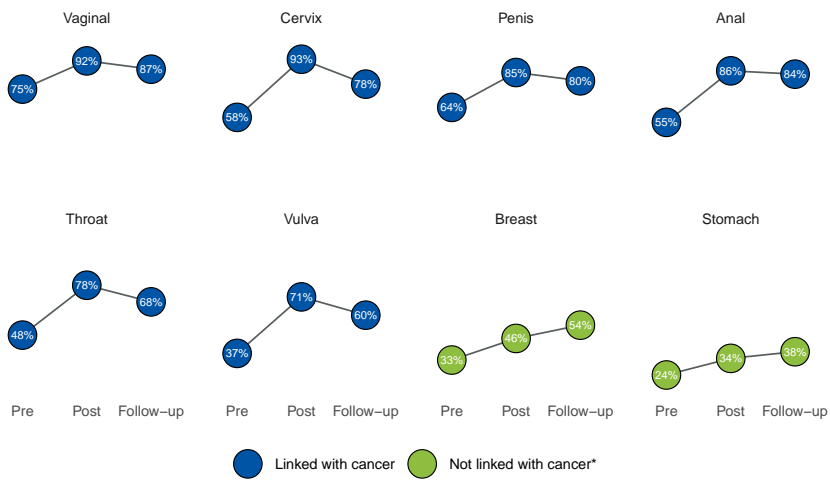
If you haven't received the vaccine, why not?

APPENDIX 2. INDIVIDUAL RESPONSES TO KNOWLEDGE QUESTIONS

Where to get the HPV vaccine: Correct answers selected
Where can you get the HPV vaccine? (check all that apply)

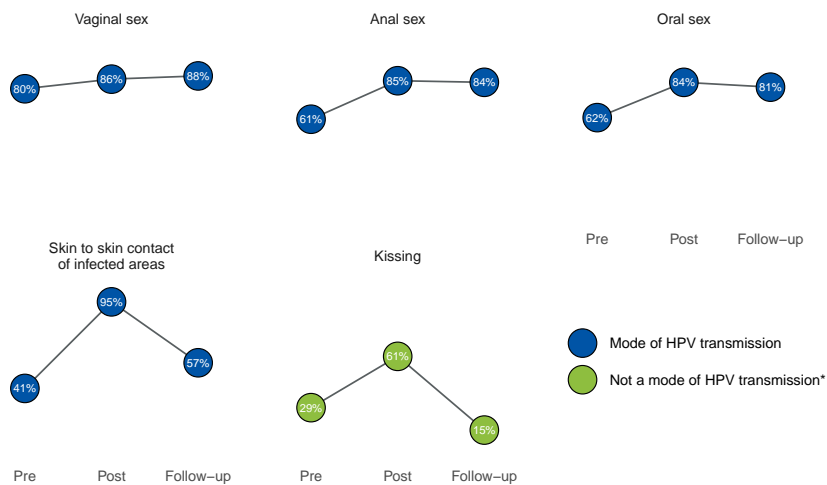


Cancers linked with HPV: Correct answers selected
What cancers can be linked with the HPV virus? (check all that apply)



*Number shown is the percentage of students who correctly DIDN'T select response

Modes of HPV transmission: Correct answers selected
HPV is transmitted through... (check all that apply)



*Number shown is the percentage of students who correctly DIDN'T select response