

Baseline HPV prevalence in MSM: assessing the impact of the selective HPV vaccination programme

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Joint Commission on Vaccination and Immunisation (JCVI)

- JCVI statement in November 2015
- MSM are at high risk of HPV infection and associated disease
- Receive little to no benefit from the girls only programme
- Following revised modelling work undertaken by Public Health England, a vaccination programme was recommended for MSM attending sexual health clinics



MSM HPV Vaccination Programme Implemented 1st July 2017

- Sexual health and HIV clinics
- MSM ≤45 years old
- Prisoners and transgender women included
- Gardasil is the (current) vaccine of choice
- 3-dose schedule for those aged 15-45
- Those aged under 15 only require 2 doses



What is HPV and what diseases can it cause?
The human papillomavirus (HPV) is very common and you can catch it through intimate sexual contact with another person who already has it. There are over 200 types of HPV. Because it's so common, most people will get infected at some point in their life. People are often infected without knowing it as there are usually no symptoms and infections tend to go away on their own.
HPV infections that persist can lead to cancers – anal, throat and penis (penis) cancers in men, and cervical cancer in women. Other types of HPV infection can cause genital warts.

How is HPV infection spread?
HPV is the most common sexually transmitted infection in the UK. HPV is spread mainly by skin-to-skin contact, not just anal and vaginal sex. Genital HPV infections are highly contagious and usually associated with sexual contact. Nearly all sexually active people get infected with HPV at some point in their lives. The risk increases with the number of sexual partners you and/or your partners have.

Can HPV infection be prevented?
Condoms do not guarantee protection from infection. This is because HPV can be transmitted by skin contact with areas not covered by condoms.

What is the vaccine?
The vaccine is now offered to MSM attending sexual health and HIV clinics across Scotland. It protects against four types of HPV (types 6, 11, 16 and 18) that can cause cancer and genital warts.
The vaccine is a course of three injections over 4 to 12 months if you are 15 to 45 years old. Those under the age of 15 only need two doses (six months apart).

1st dose	✓/✓
2nd dose at least one month after the first dose	✓/✓
3rd dose at least 3 months after the second dose and ideally within 12 months of the first dose	✓/✓

To get the best protection, it's important you get all three immunisations.
The card above is for you to take out and record your three immunisations.

Why should MSM attending sexual health and HIV clinics be immunised?
MSM attending sexual health and HIV

Is the vaccine safe?
The vaccine meets the safety standards required for it to be used in the UK and other European countries.
It has been given safely to millions of people worldwide, and used in Scotland since 2008. More than three quarters of a million school girls have received at least one dose of the vaccine.

Does it have any side effects?
The most common side effects are soreness, swelling and redness at the site of the injection. This is similar to other vaccines. More serious side effects are rare. If you feel unwell at any time after getting immunised, you should contact your GP.

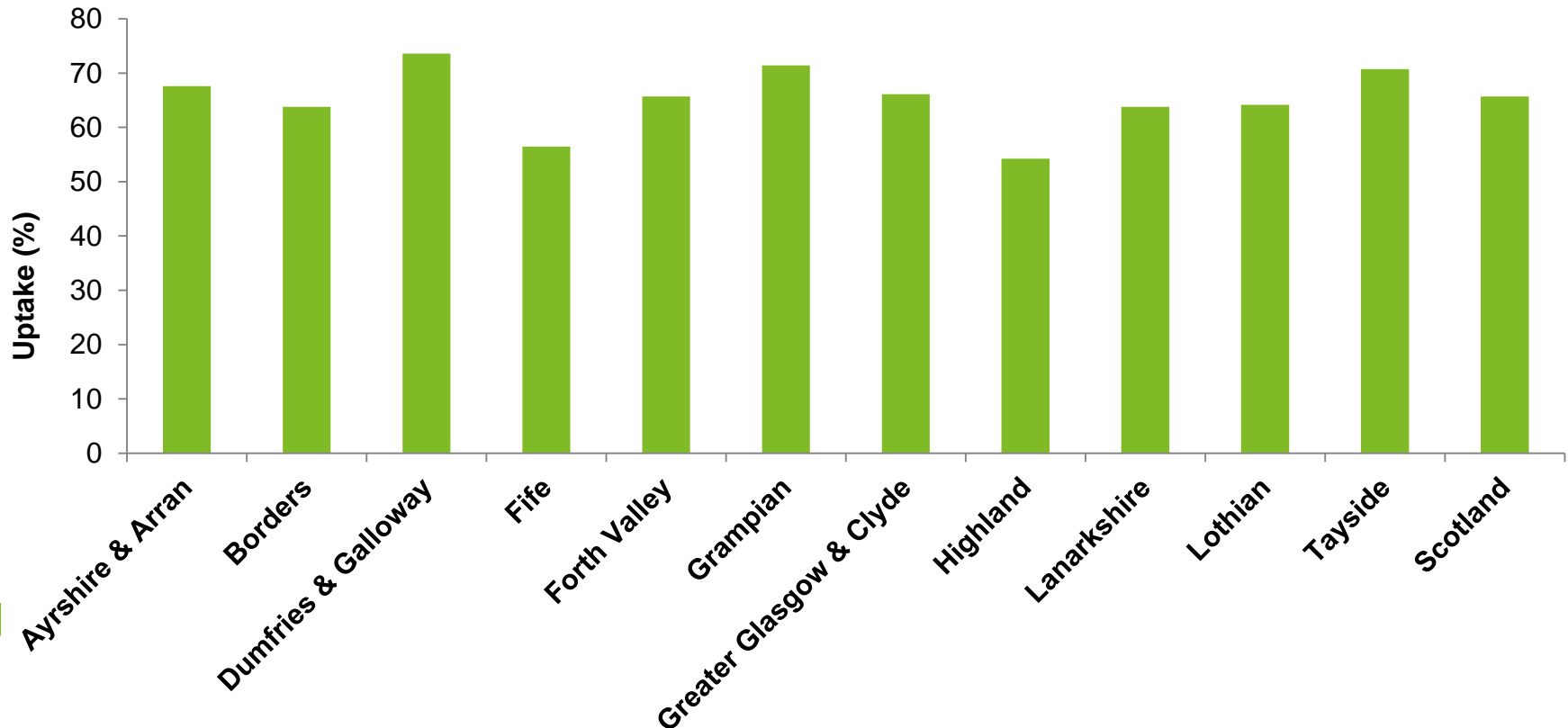
How do I get the vaccine?
Please ask your sexual health doctor or nurse for more details.

For more information on the vaccine and possible side effects visit: immunisationscotland.org.uk/hpvmsm

Vaccine uptake

- Vaccine uptake via prescription data

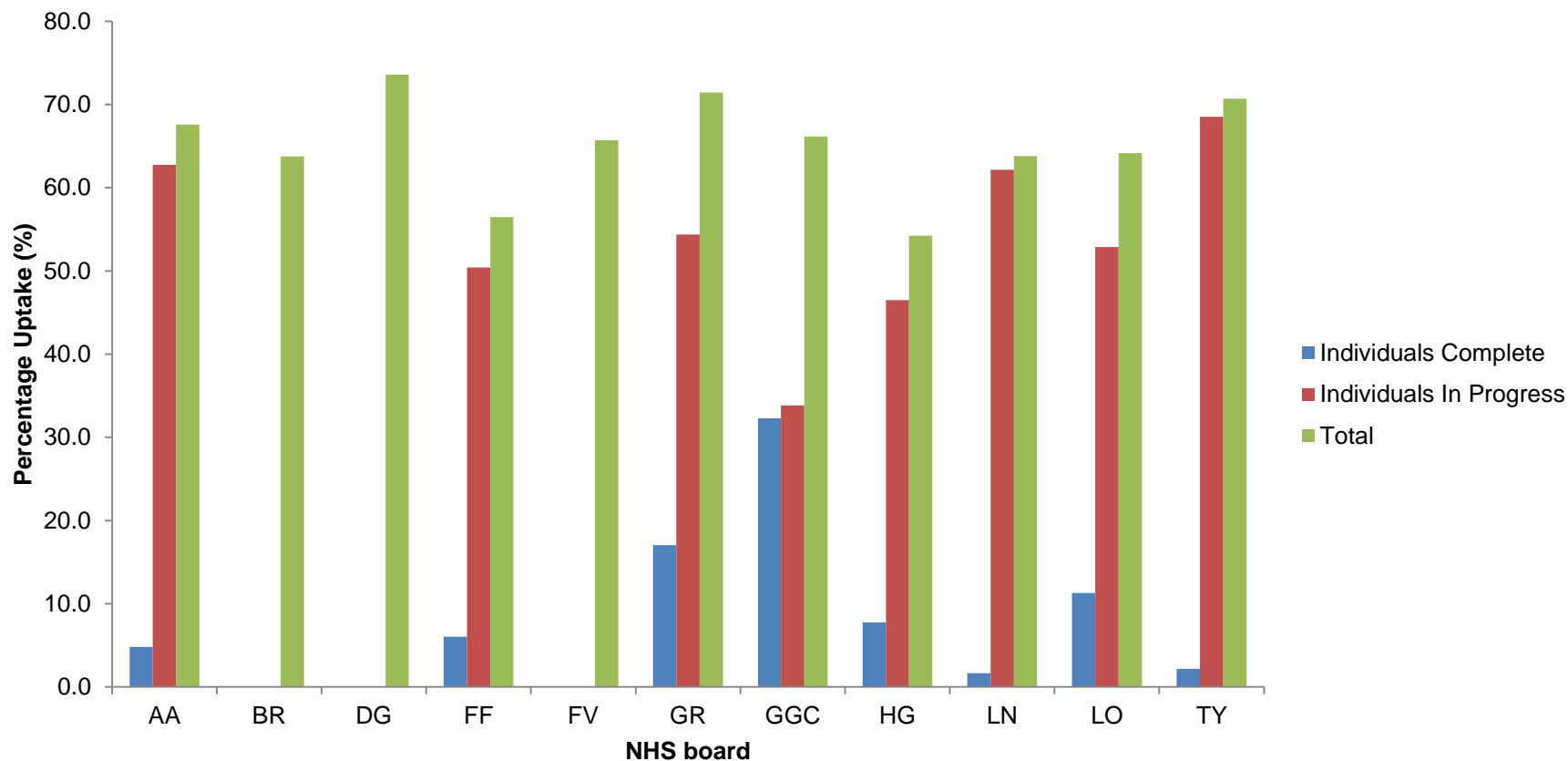
One dose HPV vaccine uptake among MSM in Scotland, July 2017 – June 2019
(n=9146)



Note: NHS board is based on most recent appointment location

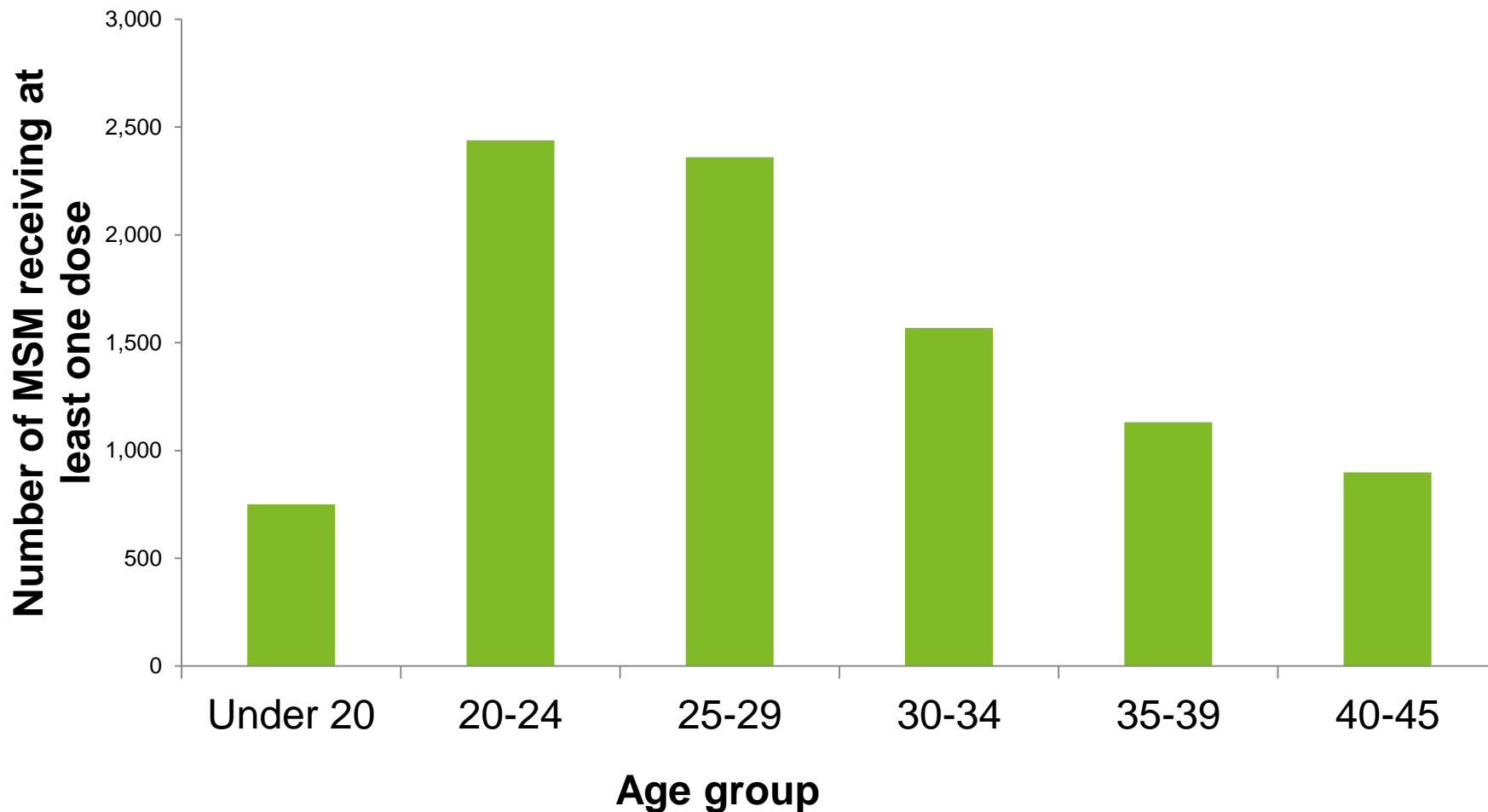
Vaccine uptake

- Vaccine uptake via prescription data
- HPV vaccine uptake among MSM in Scotland, July 2017 – June 2019 (n=9146)



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HPV vaccine uptake among MSM by age group, Scotland, July 2017–June 2019



Note: Assignment to age group is based on age at first prescription.



Vaccine impact

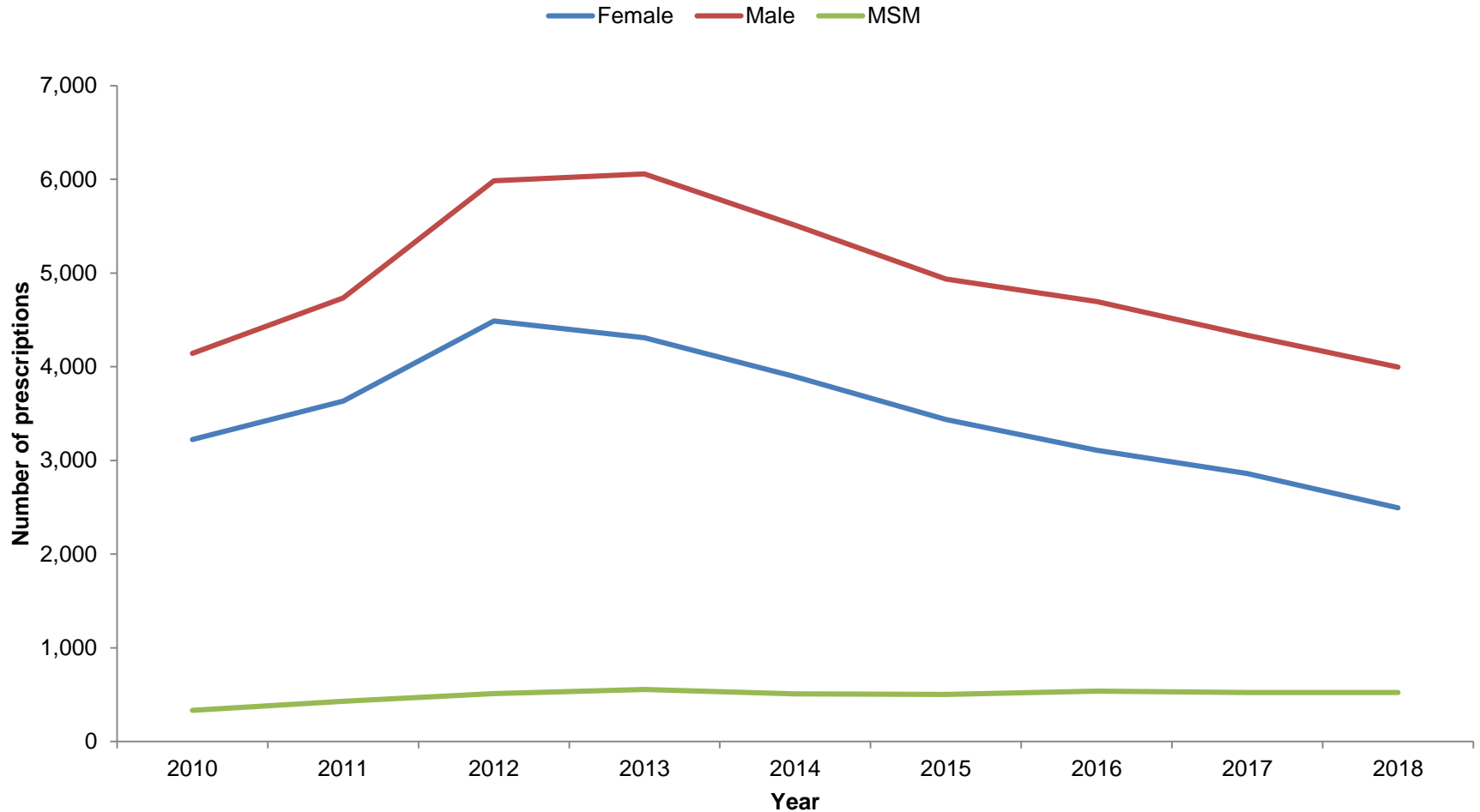
- HPV related disease
 - diagnoses of genital warts via prescription data
- HPV prevalence
 - prevalence of HPV in rectal swabs in men pre and post implementation of HPV vaccine



Genital wart treatment prescriptions

- Data extracted from the national sexual health database
- Includes prescriptions for:
 - Podophyllotoxin
 - Imiquimod
 - Cryotherapy
- Data are for prescriptions, not individuals
- Site of genital warts not known

Number of individuals receiving a prescription for genital warts by gender, Scotland, 2010 - 2018

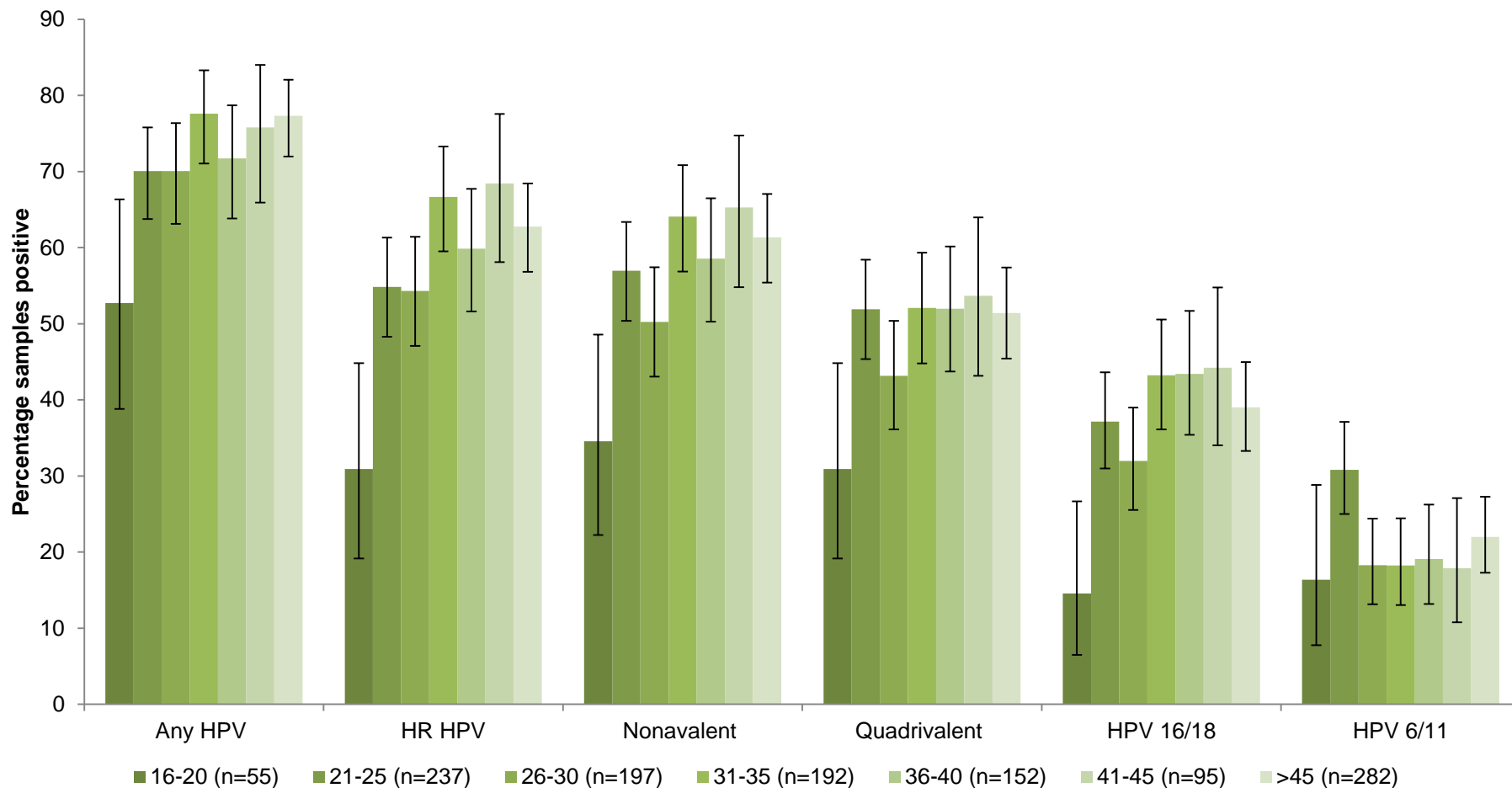


HPV type prevalence in rectal swabs- Methodology

- Rectal swabs taken between October 2016 and February 2017 for GC/CT testing
- One sexual health clinic that covers City of Edinburgh and outlying counties (16% of population)
- Residual sample tested and typed for 24 high and low risk types
- 1, 210 samples were sufficient for testing and included in analysis
- Prevalence of any HPV, high-risk HPV and vaccine type HPV assessed



Prevalence of combinations of HPV types from rectal swab samples by age group

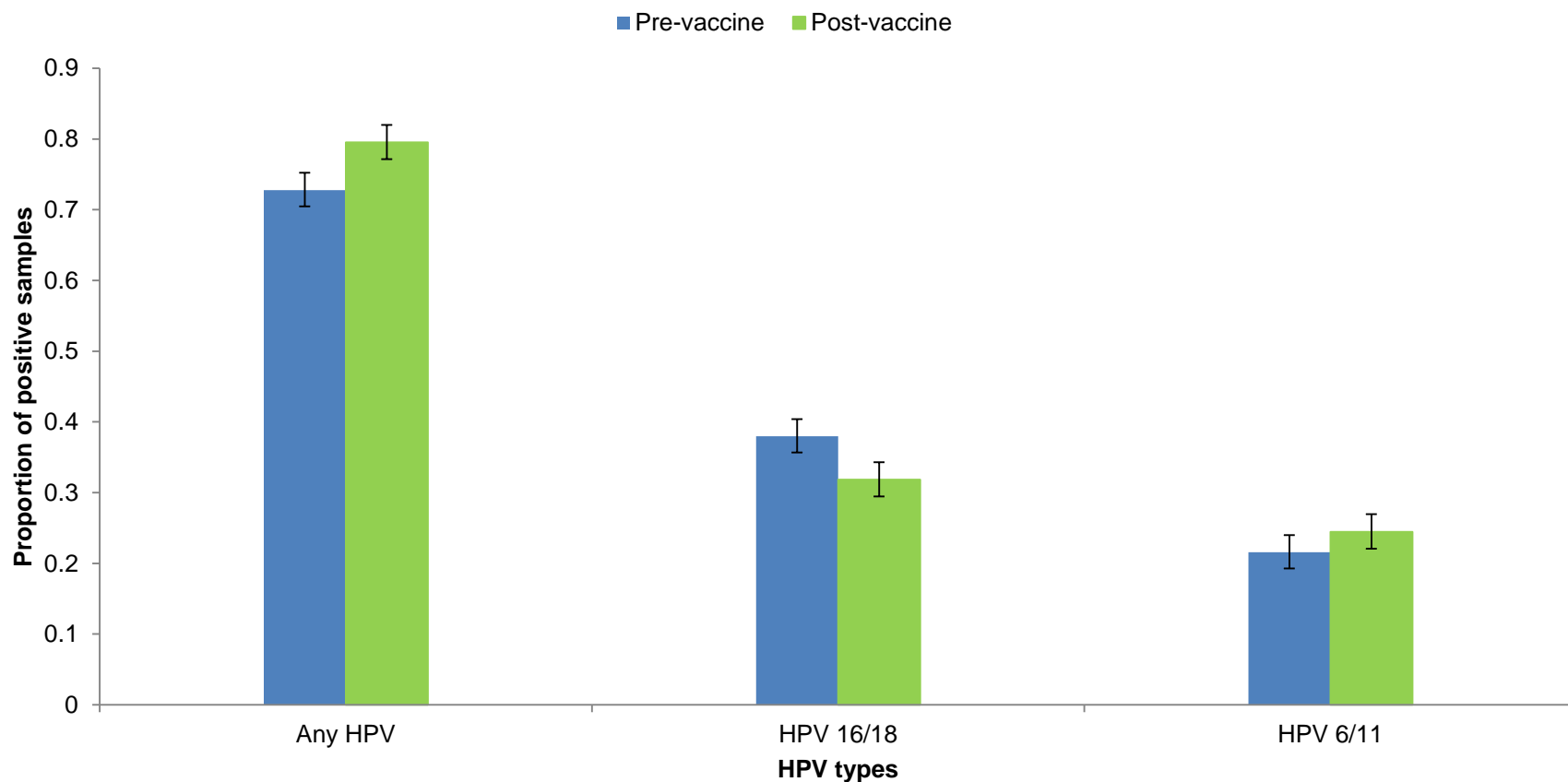




Prevalence of HPV in rectal swabs post introduction of HPV vaccination

- Further rectal swab samples were tested and typed for HPV a year after introduction of programme
- 1235 samples sufficient for analysis
- Taken in same setting and same median age of men in baseline and second sample (33 years)
- Overall, HPV prevalence was higher in post vaccine sample
- However.....

HPV prevalence and type in rectal swab samples from men pre (n=1209) and post (1235) introduction of targeted HPV vaccination programme





Conclusions and further work

- Uptake of HPV vaccine is relatively high in MSM attending sexual health clinics
- MSM vaccinated that had no prior attendance at SH clinics (38%)
- Completion rates likely to be underestimated
- Treatments for genital warts remain stable in MSM
- Prevalence of HPV is high in MSM and generally increased with age but similar in older age groups
- 50% of samples were negative for a quadrivalent vaccine type
- Indications of vaccine effect on HPV prevalence but further sampling needed
- Potential future work
 - Linkage of vaccine status to GW treatment prescribing data
 - Linkage of vaccine status to prevalence data
 - Long term – HPV driven cancers

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