Appendix 2: Details on genotyping study used to estimate HPV prevalence for the cancers and related studies from Massachusetts

| **Paper (Year)** | **Study Type and Number of Cases** | **Geographic Area** | **Years Incident Cases Collected** | **Prevalence HPV + Cases** | **Findings/Use/Limitations** |
| --- | --- | --- | --- | --- | --- |
| **Cervical** | **Oropharyngeal** |
| **Genotyping Data Nationally** |  |  |  |  |  |
| Sarayia et al (2015) [1] | Cross-sectional study of select US cancer registries, 777 cervical cases, 588 oropharyngeal cases | Los Angeles, Hawaii, Iowa, Kentucky, Florida, Louisiana, Michigan  | 1993-20051 registry 1993-19991 registry 2000-20041 registry 1994-20044 registries 2004-2005 | 90.6% | 70.1% | Used for HPV + prevalence in our estimates |
| Steinau et al (2014) [appendix source 2] | Cross-sectional study of select US cancer registries, 557 oropharyngeal cases | Los Angeles, Hawaii, Iowa, Kentucky, Florida, Louisiana, Michigan  | 1995-20051 registry 1995-19991 registry 2000-20041 registry 1994-20044 registries 2004-2005 | NA | 72.4% | High-risk HPV prevalence by registry: Los Angeles = 17 cases (85.0%) Hawaii = 33 cases (84.6%) Iowa = 4 cases (30.7%)  Kentucky = 74 cases (63.8%) Florida = 101 cases (72.1%) Louisiana = 75 cases (78.9%) Michigan = 92 cases (68.6%) |
| **Genotyping Data in Massachusetts**  |  |  |  |  |  |
| Wright et al (2013) [appendix source 3] | Chart review, Brigham and Women’s Hospital, 80 cervical cases | Boston for treatment | 2005-2011 | 96.3% | NA | To compare MA prevalence to national prevalence |
| Addison et al (2017) [19 | Case series from Massachusetts General Hospital, 235 oropharynx cases | Boston for treatment | 2002-2012 | NA | 64.7%  | To compare MA prevalence to national prevalence Eligible patients had to be undergoing radiation |
| Lorch et al (2015) [20] | Chart review, Dana Farber Cancer Institute, 500 oropharyngeal cases | Boston for treatment | 2001-2011 | NA | 43% HPV + 44% unknown status | To compare MA prevalence to national prevalence Eligible patients had to be stage III or IV |

| **Paper (Year)** | **Study Type and Number of Cases** | **Geographic Area** | **Years Incident Cases Collected** | **Prevalence HPV + Cases** |  |
| --- | --- | --- | --- | --- | --- |
| **Cervical** | **Oropharyngeal** | **Findings/Use/Limitations** |
| **Genotyping Data in Massachusetts** |  |  |  |  |  |
| Nelson et al (2017) [21 | Population-based greater Boston area, 486 pharyngeal cases | Greater Boston area | 1999-2003 and 2006-2011 | NA | 60.7% | To compare MA prevalence to national prevalence |
| Nichols et al (2010) [22] | Case series from Partners Healthcare System, 68 oropharynx cases | Massachusetts | 1996-2006 | NA | 78% HPV 16 | To compare MA prevalence to national prevalence Eligible patients had to be undergoing chemoradiation  |
| Ringstrom et al (2002) [23] | Case series from Dana-Farber, 29 oropharynx cases | Boston for treatment | 1994-1998 | NA | 52% HPV 16 oropharynx64% HPV 16 tonsil | To compare MA prevalence to national prevalence |

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