

### **BACKGROUND/RATIONAL**

Human papillomavirus (HPV) vaccine is a cost-effective way to provide evidenced based protection against genital warts and several types of cancer. Yet it remains one of the most underused vaccinations in the United States. Mississippi, according to CDC reports, falls in the highest risk category for rates of all groups of HPV related cancer. Mississippi ranked in the lowest category by state, reporting less than 55% of both females and males received more than 1 dose of the HPV vaccine. Healthcare providers' recommendations have been found to be a strong predictor of HPV vaccination behaviors. As osteopathic medical schools are a top provider of primary care physicians, this research is important to drive change. Therefore understanding the perceived barriers of providers regarding HPV vaccination, creates a first step learning how to overcome those barriers.

### **OBJECTIVES ASSESSED**

- *The perceived barriers to HPV vaccination by health care providers*
- *The physician perceived risk of contracting HPV*
- *Perceived level of confidence addressing concerns regarding HPV vaccines*

### **MATERIALS/METHODS**

*This pilot survey based project was IRB approved.*

#### **Sample:**

Healthcare providers who were members of the Mississippi Osteopathic Association (MOMA), Louisiana Osteopathic Association and Mississippi (LOMA) or Medical Association (MMA) was asked to participate in the online anonymous survey by each association

#### **Survey**

An electronic survey (20 items) included 6 demographic and 14 healthcare related questions regarding practice, patient population, barriers, beliefs and self-efficacy.

Questions were multiple choice and Likert type scale ratings. The survey was deployed electronically to physician associations in Mississippi. All participation was voluntary and no compensation was provided.

#### **Analysis**

Descriptive statistics were used to address demographics in practice, beliefs and perceived barriers.



### **HEALTHCARE PROVIDER PRACTICE SETTING (N=119)**

Practice Setting	Frequency	Percent
Other (please specify)	22	18.5
Private Practice	51	42.9
Community Clinic	10	8.4
Public Health Depart. Clinic	3	2.5
School-based/Univ Clinic	14	11.7
Hospital-based Clinic	19	15.9



### **PROVIDER REPORTED SPECIALTY/ PRIMARY FOCUS OF PRACTICE (N=119)**

Practice Focus	Frequency	Percent
Other (please specify)	31	26.1
Obstetrics/Gynecology	14	11.8
General Practice	4	3.4
Pediatrics	18	15.1
Family Medicine	39	32.8
Internal Medicine	13	10.9

### **RESULTS**

131 healthcare providers responded with 128 (97.7%) opting in and 119 (90.8%) fully completing the survey. Most respondents were physicians (MD:55.9% and DO: 31.4%). 67.9% (72) reported offering one or more vaccinations with 62 offering HPV vaccines (Gardasil or Cervarix).

#### **Top Reported Barriers for HPV Vaccine**

- Lack of interest by patients and cost.

#### **Additional Barriers included the following two categories**

##### **1) Financial:**

- Upfront cost by the provider
- Insurance reimbursement to the provider
- Concerns of vaccine expiration and health risks

##### **2) Parent Communication:**

- Time needed to convince parents
- Belief that child was not sexually active,
- Belief that child was low risk for HPV
- Concerns over vaccine and side effects

Most physicians agreed that vaccinating both male (81.82%) and female (90.91%) patients was important and agreed patients were at risk (86.36%) of HPV. Most providers felt confident regarding their knowledge and ability to communicate HPV related information, and agreed with the importance of discussing HPV and HPV related diseases (62%).

### **DISCUSSION/CONCLUSIONS**

This pilot survey identified that though Mississippi providers agreed that both male and female patients were at risk and should receive the HPV vaccine, there were barriers in communication focused on lack of time to address parent beliefs regarding lack of HPV risk for children. Though HPV is now covered by most medical insurance health policies, it remains a complex financial barrier for providers.

Though providers were confident in their ability to address HPV and HPV vaccination, perceived availability to access was a concern. Providers reported that educational materials were lacking in their offices.

### **IMPLICATIONS FOR FUTURE RESEARCH**

- Next steps of this project will be to expand to other states.
- Future research can also address strategies to reduce provider financial barriers and assess educational materials present in providers' offices as well the cultural diversity of HPV educational information.