

Sara J. Bubenik, M.D.

Clinton County, NY Adult Vaccine Assessment: What are the Risks and Barriers



Master of Public Health - Capstone Project and Field Experience Presentation
May 4, 2016

Overview

- Introduction
- Clinton County, NY Characteristics
- Clinton County Public Health Department
- Adult Vaccine assessment of gaps and barriers to up-to-date vaccination
- Conclusion

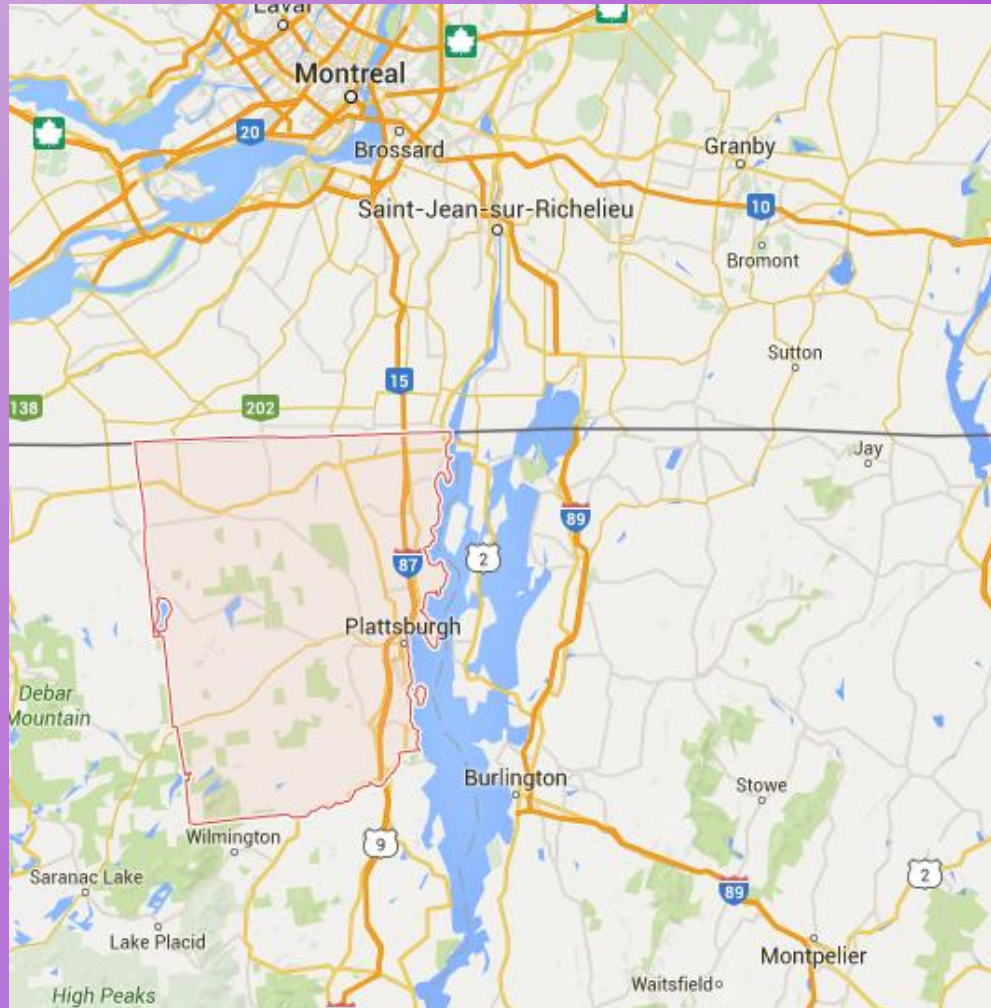
Clinton County, NY



North Country



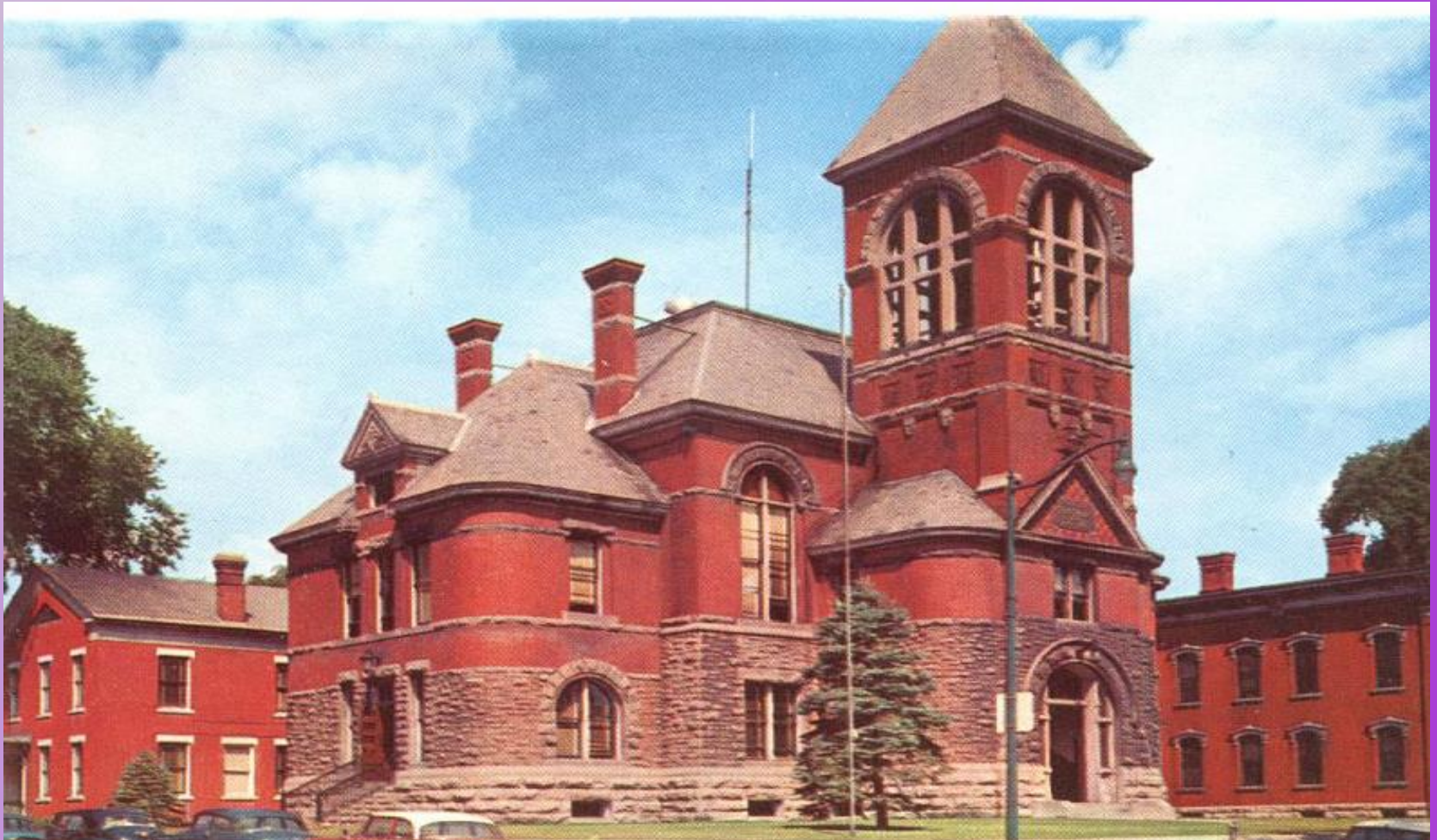
Clinton County



Plattsburgh, NY



Clinton County Health Department





Mission:

“To improve and protect the health, well being and environment of the people of Clinton County”

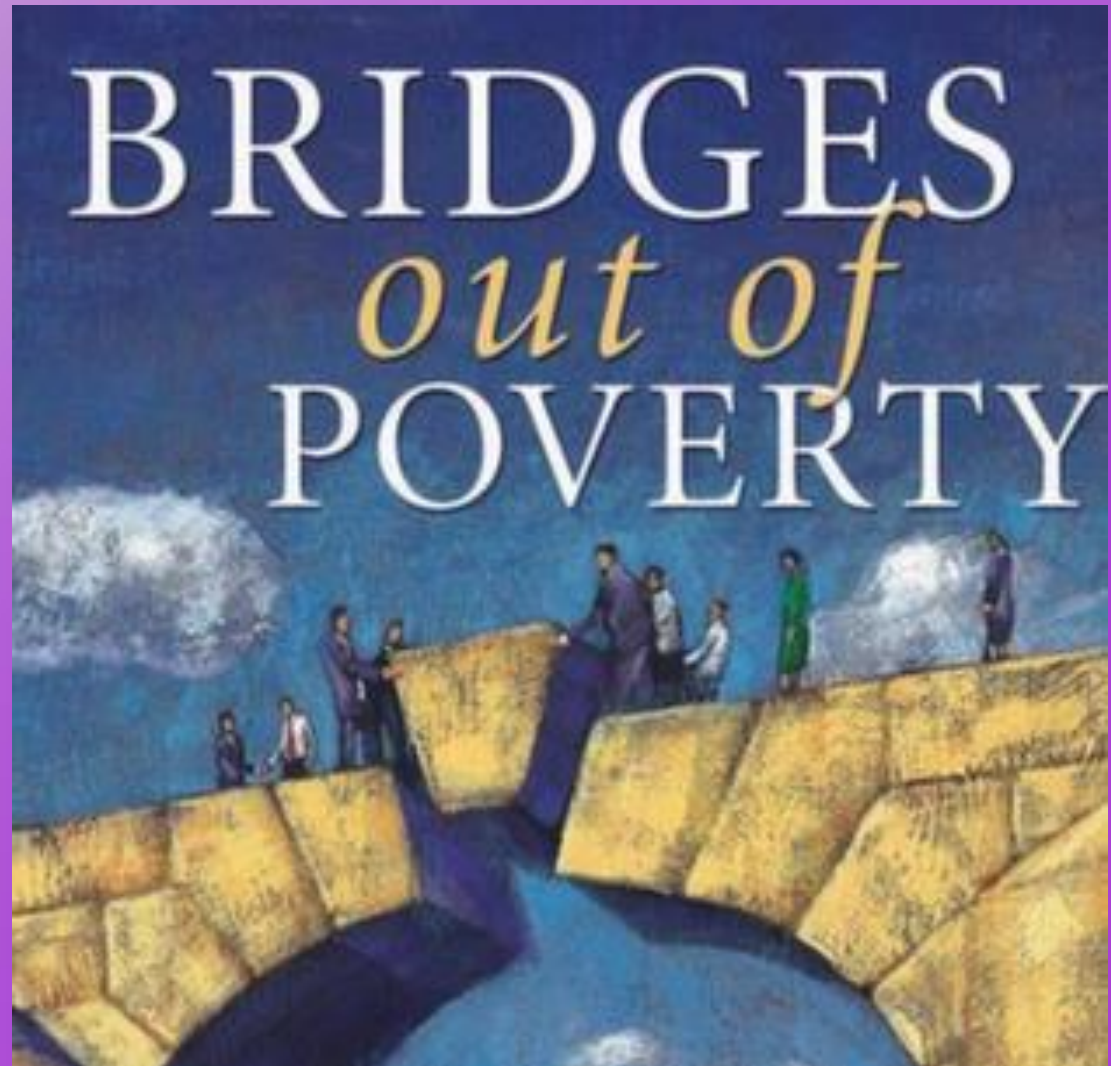
Spectrum of Prevention

	Influencing Policy & Legislation EPHS* #5	Changes in local, state & federal laws have the potential for achieving the broadest impact across a community. Effective formal & informal policies lead to widespread behavior change & ultimately change social norms.
	Mobilizing Neighborhoods & Communities EPHS #4	A relatively young concept, this includes meeting with communities to prioritize community concerns such as violence, unemployment and keeping families together, so that these needs may be addressed along with the health department goals.
	Changing Organizational Practices EPHS #6	Changes in internal regulations & norms, allows organizations to affect the health & safety of its members and the greater community.
	Fostering Coalitions & Networks EPHS #4	Coalitions & expanded partnerships are vital to public health movements and can be powerful advocates for legislative and organizational change. From grassroots partners to governmental coalitions, all have the potential to develop a comprehensive strategy for prevention.
	Educating Providers EPHS #8	Providers have influence within their fields of expertise to transmit information, skills, and motivation to their colleagues, patients & clients. They can become front-line advocates for public health encouraging the adoption of healthy behaviors, screening for risks and advocating for policies and legislation.
	Promoting Community Education EPHS #3	Community education goals include reaching the greatest number of people possible with a message as well as mass media to shape the public's understanding of health issues.
	Strengthening Individual Knowledge & Skills EPHS #3	This is the classic public health approach and involves nurses, educators and trained community members working directly with clients in their homes, community settings or clinics in order to promote health.

Focus of health and poverty through the lens of economic class.

Topics covered:

- Environment of poverty
- Effective communication
- Strategies' to improve outcomes in struggling clients
- Building community sustainability





CCHD was selected as one of NYSHHealth's six Healthy Neighborhoods Fund grantees, playing the lead role in coordinating a multipronged approach to improve the health of its residents

Barriers to achieving the goals presented by NYSHHealth included high food prices and transportation issues

The strategy, adopted by CCHD, is to improve access to nutritious food through local farmers markets and farm stands.

A Complete Streets initiative was also started to improve the walkability of communities and enhance other physical activity opportunities.

Vaccines for Adults

- Allows for no cost vaccine for adults that are underinsured or uninsured.
- Requires to computerize all vaccine inventories for ordering and tracking.





Capstone Project

Adult Vaccine assessment of
gaps and barriers to up-to-
date vaccination

Background

- Approximately 42,000 adults in the US die each year from vaccine preventable illness.
- The 2008 influenza vaccination rate for adults 18-65 years of age was only 25% compared with the Healthy People 2010 goal of 80%
- The rate for adults 65 years of age and older was ~ 67% compared with the goal of 90%
- Substantial burden on health-care related costs for individuals, and on the state and national level

What are the noted barriers?

- Limited public awareness about adult vaccinations
- Misinformation about vaccines
- Lack of vaccine requirements for adults
- Gaps in incorporation of routine vaccine needs assessment and recommendations for adults during health care visits
- The cost of stocking vaccines and providing vaccination services
- Inadequate and/or inconsistent payment for vaccines and vaccine administration
- Lack of health insurance and limited funding for programs to vaccinate uninsured adults
- Acute medical care taking precedence over preventive services

Objective

To gather data to determine strategies, barriers, gaps in treatment, and services needed to help ensure adults receive the recommended vaccines.

Research Questions

- What is the status of adult vaccination rates in Clinton County?
- What is the accessibility and availability of recommended adult vaccines in Clinton County?
- What is the general adult population's knowledge or awareness of adult vaccine needed and scheduled?
- What are the perceived barriers to offering adult vaccine management and application by health-care providers?
- What/Where are the gaps in vaccine management?
- What recommendations should be given for ensuring Clinton County meets the Healthy People 2020 objective for adult vaccination?

Methodology

Data Gathering

- To assess vaccination barriers and gaps in Clinton County for adults >18 years, data was first assessed using the New York State Department of Health database for adult immunizations in Clinton County.
- A systematic literature review was conducted via Google scholar, KState library, PubMed, and the CDC to review prior recommendations and reports on adult immunizations.
- Three questionnaires were constructed based on this literature for the assessment of vaccine knowledge and barriers for the Community at large, physicians and pharmacies.

Questionnaires

- Community: Adults 18 years and older living in Clinton County
- Physician: All Primary Care Physicians (PCP) in Clinton County who treat patients >18 years
- Pharmacy: All Pharmacies in Clinton County

Sampling

Community

- Surveys dispersion via email and face-to-face interviews
- 335 collected responses of 82,128 with a noted 6% margin of error.
- Convenience sampling used due to the limited access to community phone numbers, including cell phone numbers,

Physician

- 40 primary care practitioners in Clinton county and 8 respondents

Pharmacy

- 21 pharmacies in Clinton County and 7 respondents

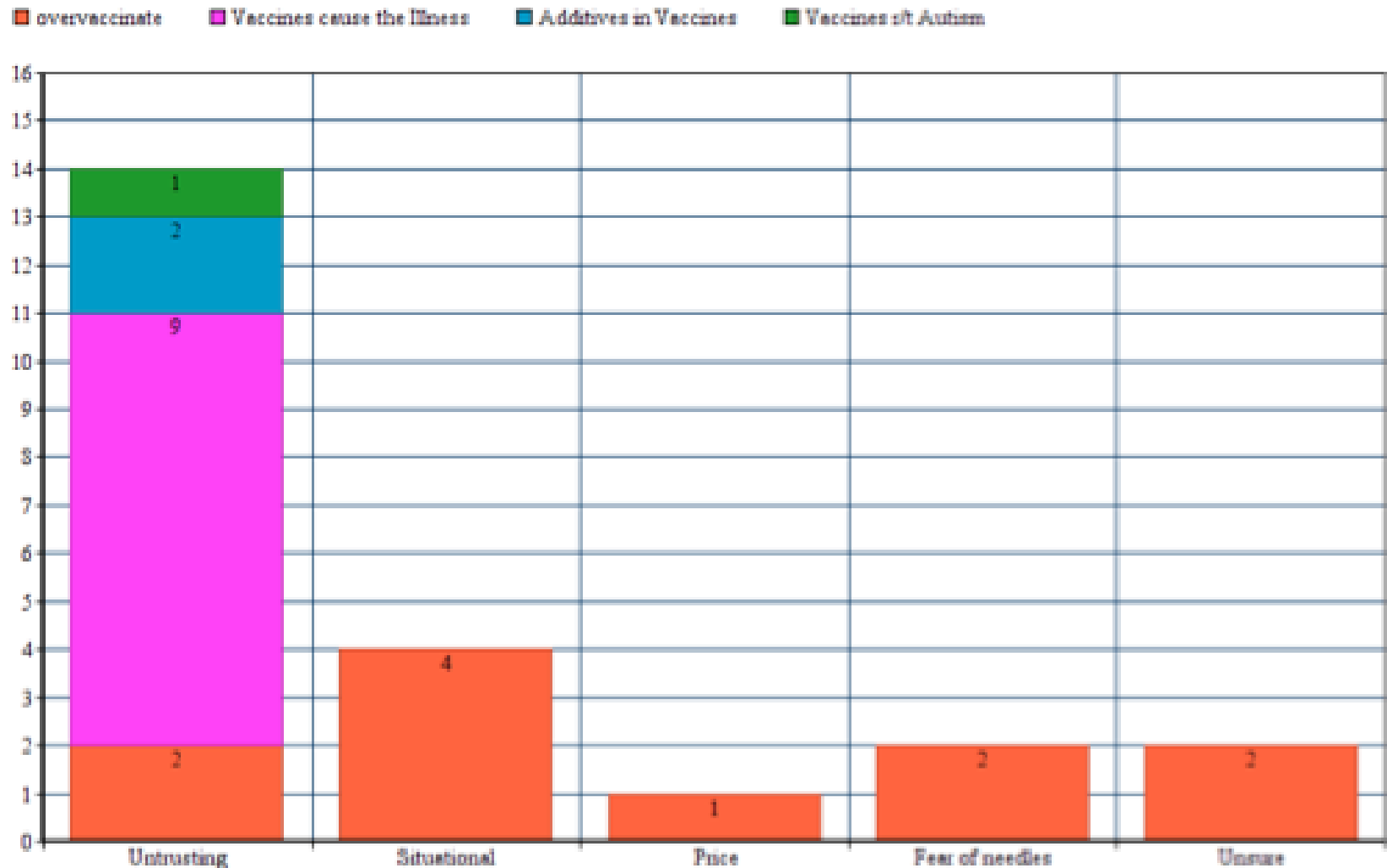
Results and Analysis

Community Survey

- Most respondents (85%) rated positive feelings toward routine immunization
- 15% reported negative feelings
 - Vaccines are not important
 - Vaccines are too Risky
 - No confidence in vaccines

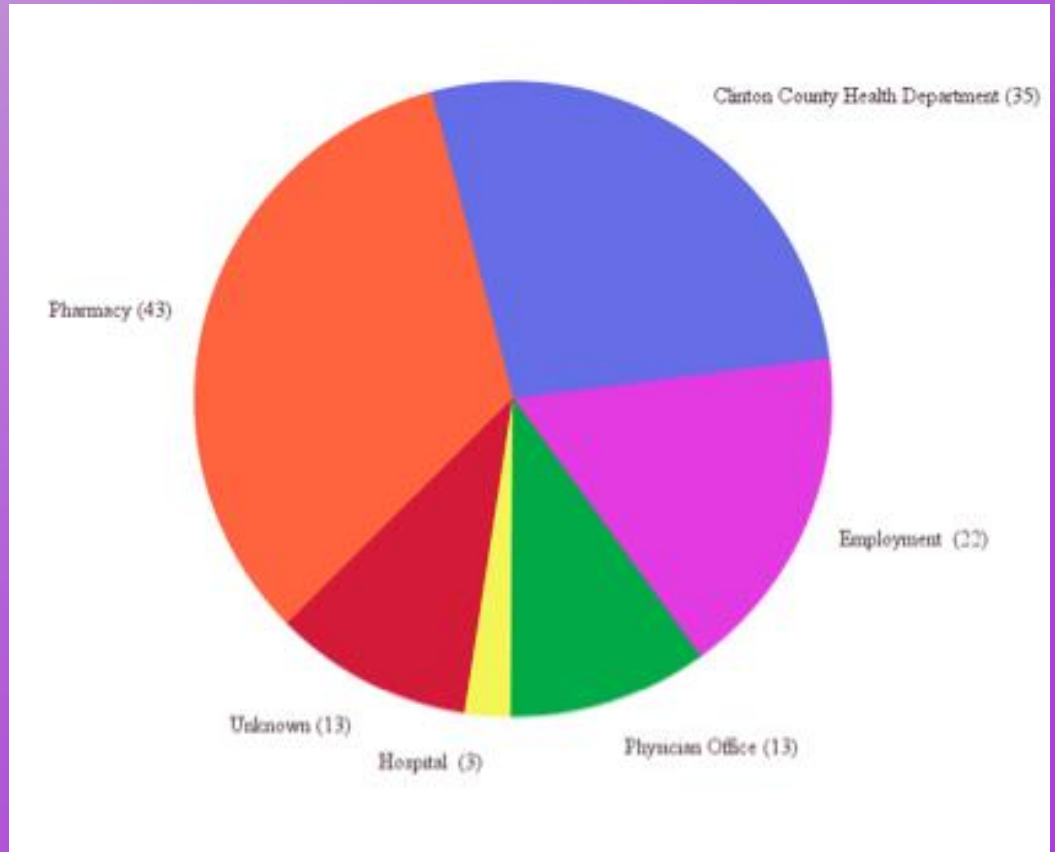
Community Survey

Community Survey: Reasons why not Fully Vaccinated



Reported Vaccination Locations

- 40% respondents reported that their PCP did not discuss immunizations with them or refer them elsewhere for immunization services.
- If not physician, where did they receive immunizations?



Physician Survey

- PCP response mirrors community responses
- The majority of PCPs (71.43%) refer patients elsewhere when they do not routinely stock vaccines.
- The main rationale to vaccine referral was divided evenly between not stocking the vaccine and the patient's insurance not covering a vaccine.
- Assessment of patient's immunization status was variable.
- A large percentage of PCPs (~43%) only assessed immunization status only when their patient's disease state warranted assessment.

Barriers

Logistic concerns were not reported as a moderate or Major barrier

Financial concerns for cost and maintenance were a moderate concern

Acute visits took precedence over vaccination

	No Barrier	Minor Barrier	Moderate Barrier	Major Barrier	N/A	Weighted Average
Costs of buying vaccines upfront	0.00%	80.00%	0.00%	20.00%	0.00%	2.40
Maintenance and cost of adequate vaccine storage equipment.	40.00%	40.00%	0.00%	20.00%	0.00%	2.00
Not enough patients in your practice who need vaccines to justify the cost and hassle of stocking all vaccines.	16.67%	50.00%	33.33%	0.00%	0.00%	2.17
Possible financial loss due to expiration of vaccines prior to use.	40.00%	20.00%	40.00%	0.00%	0.00%	2.00
Difficulty determining if a patient's insurance will reimburse for a vaccine.	20.00%	60.00%	20.00%	0.00%	0.00%	2.00
The patient does not have insurance for vaccines.	0.00%	40.00%	40.00%	20.00%	0.00%	2.80
Persons who administer vaccines and staff who manage or support vaccine administration are knowledgeable and receive ongoing education.	60.00%	20.00%	0.00%	0.00%	20.0%	1.25
The hassle of ordering vaccines.	100.0%	0.00%	0.00%	0.00%	0.0%	1.00
Difficulty determining whether a patient has received a particular vaccine.	0.00%	60.00%	20.00%	20.00%	0.0%	2.60
Other preventative services take precedence during time-limited visits.	40.00%	40.00%	0.00%	0.00%	20.0%	1.50
Acute problems take precedence over vaccinations.	20.00%	0.00%	40.00%	0.00%	40.0%	2.33
Patients can receive vaccines elsewhere.	60.00%	20.00%	20.00%	0.00%	0.00%	1.60
Patients refuse vaccines for safety concerns or because they believe they do not need them.	0.00%	60.00%	40.00%	0.00%	0.0%	2.40

Pharmacy Survey

- All respondents reported positive feelings toward vaccine administration in their pharmacies
- A majority felt vaccine administration was a moderate impedance in their daily routine.
- Most pharmacies provided adult vaccinations and only required an off premises physician standing order to administer.
- The majority also felt that they had excellent knowledge of state and federal regulations in vaccine administration and had excellent staff support.

Potential Barrier

- Standardized immunization registry
 - 42% inputted into the state registry
 - More than 85% of documentation of vaccines in the pharmacy is kept in the pharmacy network of vaccination records

Limitations

- Self-reporting is a source of recall bias.
- The low response rate both overall and among provider and pharmacy surveys was a predominant weakness that limited the statistical accuracy of the study.
- The community survey relied on a convenience samples from non- random sampling potentially skewing the data

Conclusions

- Findings are consistent with the results of both past and recent vaccine administration research.
- Despite the availability of immunizations, many PCPs do not assess or discuss immunizations with their patients routinely leaving many patients unaware that they need vaccination.
- Although there was overwhelming positive support of immunizations, misconceptions do exist in the population.

Documentation

- Non-standardized documentation methods presented an obstacle to assessing immunization rates.
- Physician's offices use different electronic medical records contributing to the difficulty in streamlining accessible vaccine histories.
- Currently, children are mandated to participate in an immunization registry, however adult vaccinations are not required.

Recommendations

- PCPs should have regular discussions with all patients about their immune status
- Increased documentation for adult immunizations with pharmacies and providers needs to be addressed or we won't be able to track our immunization rates.
- It's possible Clinton County might already be meeting the Healthy People 2020 goal and not know it because of the lack of cooperation with our state's central adult immunization registry.
- It would be interesting to know what zip codes or geographic regions in the county these returns came from – were they spread throughout the county or representative of more concentration in the urban areas
- The community felt they were knowledgeable about their needed vaccinations. Future questioning should involve a more thorough discussion regarding individual vaccines.

Overall

Results from this survey suggest that efforts to increase communication and interaction between PCPs, The public health agency, and pharmacy vaccine providers may improve adult vaccination rates to meet the healthy people 2020 goals.

QUESTIONS

