

# Report for Putnam County Early Childhood Vaccine Provider Survey

Putnam County Department of Health

## Introduction & Methods

The Putnam County Department of Health (PCDOH) Immunization Program conducted a short survey of medical practices participating in the Vaccines for Children (VFC) Program regarding early childhood immunization. The VFC program is a federally funded program that provides immunization to children at no cost for individuals that could not be vaccinated due to a cost barrier.<sup>1</sup> Putnam County has nine VFC practices, including the Putnam County Department of Health. The nine VFC practices constitute all primary care sites serving pediatric populations in Putnam County. The objective of the survey was to better understand clinician behavior and practice policies related to early childhood immunization. Knowledge gained will inform ongoing efforts to increase early childhood vaccination rates in Putnam County.

For the purposes of this report, early childhood immunizations are defined as those included in the 4:3:1:3:3:1:4 series, comprised of:

- 4 doses of diphtheria-tetanus-pertussis (DTap),
- 3 doses of polio,
- 1 dose of measles-mumps-rubella (MMR),
- 3 doses of hepatitis B,
- 3 doses of Haemophilus influenza type b (Hib),
- 1 varicella (chickenpox), and
- 4 pneumococcal conjugate (PCV13).

In 2021, the most recent year with data available, 62.9% of 24-35-month-old children residing in Putnam County were up to date on vaccines in this series by their second birthday, as compared to 70.8% in 2019. PCDOH aims to increase this vaccination rate to meet the New York State Department of Health (NYSDOH) Prevention Agenda goal of 70.5% by the end of 2024.<sup>2</sup>

The survey consisted of a mix of open-ended and multiple-choice questions (Appendix A). The unit of measure was the VFC practice site. It was conducted over the phone with staff (e.g., office managers, medical assistants, nurses, nurse practitioner, or physicians) who were instructed to provide answers regarding the pediatric portion of the practice site.

Data collection methods were flexible to accommodate practice needs and structure. In smaller practices the survey was completed as a single phone interview with a point of contact. It was more difficult to gather information from a single source in one phone call for practices that are part of larger entities. A fillable PDF was supplied to these practices to facilitate information collection ahead of a scheduled phone interview with a designated point of contact.

The following report contains statistics produced directly from the survey software (© 2023 Alchemer) with additional charts created with data exports in Excel.

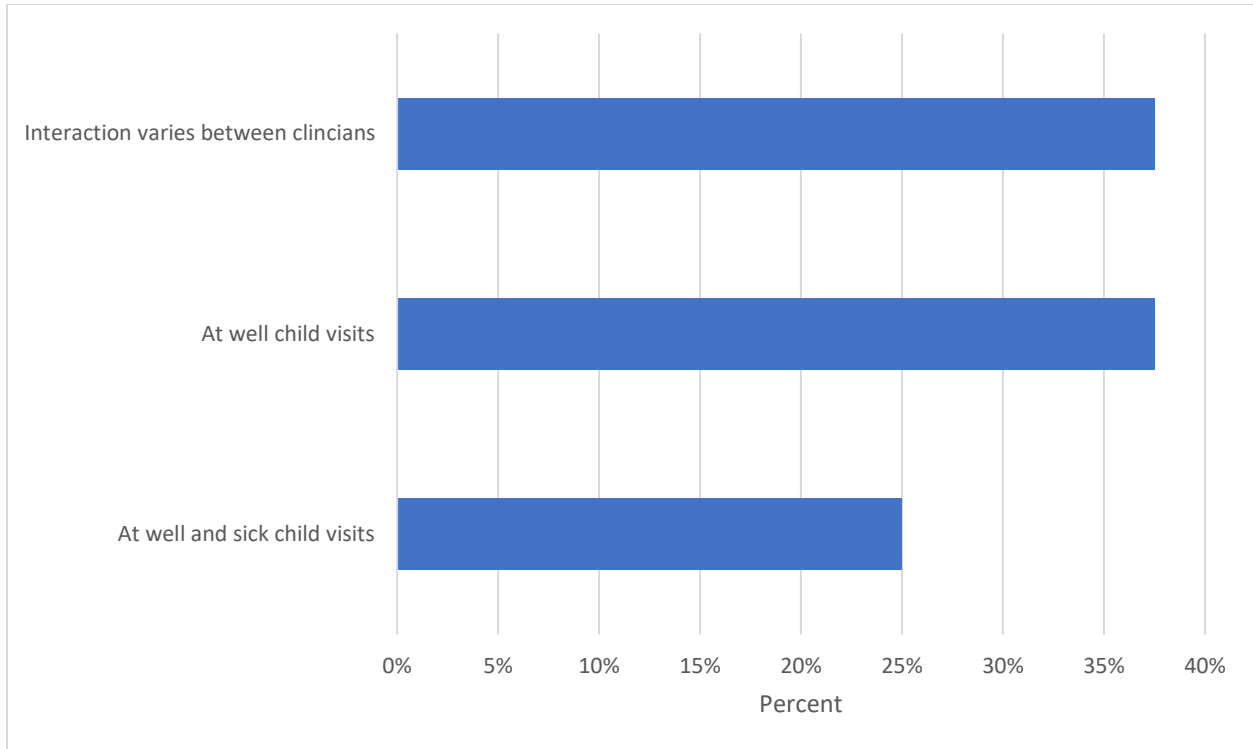
## Results

The response rate for this survey was 100% with all nine VFC practices fully completing the survey.

### Clinician Behavior and Standard Operating Procedures

Respondents were asked to answer the following questions regarding clinician behavior and standard operating procedures related to early childhood vaccination.

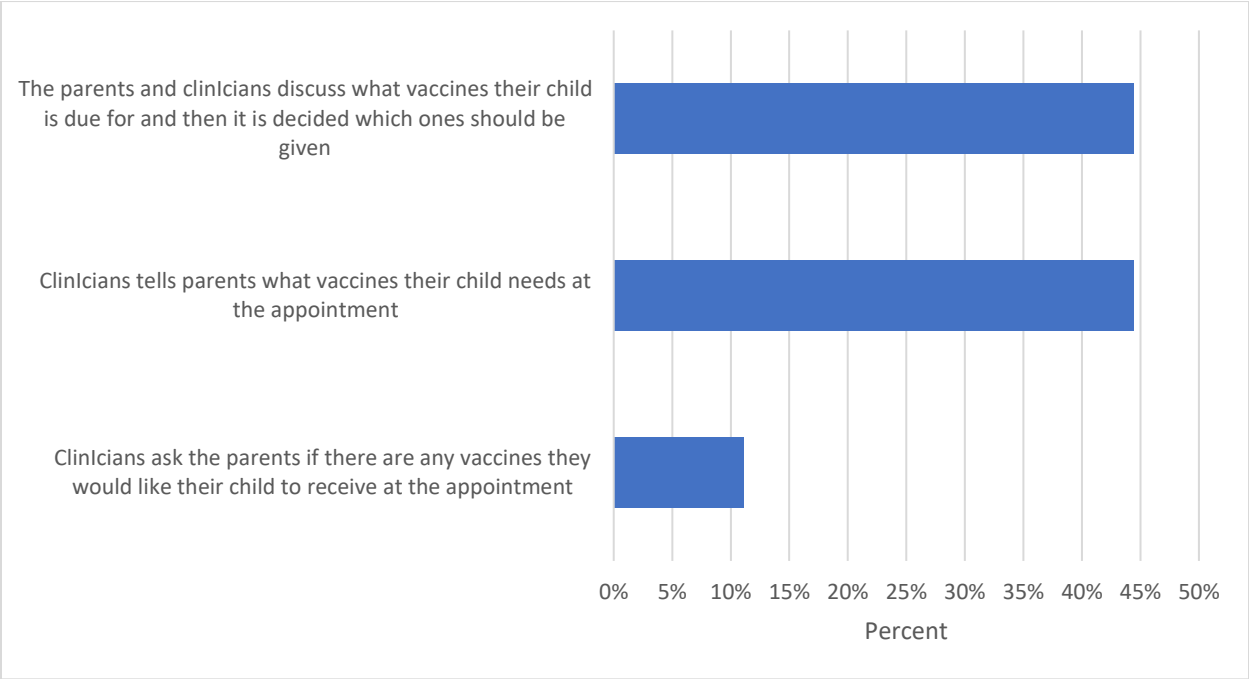
*When do clinicians in your practice make vaccine recommendations?*



| Value                                 | Percent | Responses |
|---------------------------------------|---------|-----------|
| Interaction varies between clinicians | 37.5%   | 3         |
| At well child visits                  | 37.5%   | 3         |
| At well and sick child visits         | 25%     | 2         |

Only eight of the nine practices responded to this question because it is not applicable to PCDOH, whose practice is limited to vaccine clinics. Three respondents said that all clinicians at their practice recommend vaccinations at well visits only, with only two practices recommending vaccines at both well and sick child visits. The remaining three respondents said that variation exists between clinicians in the practice.

*What best describes clinicians' interactions with patients concerning vaccines?*

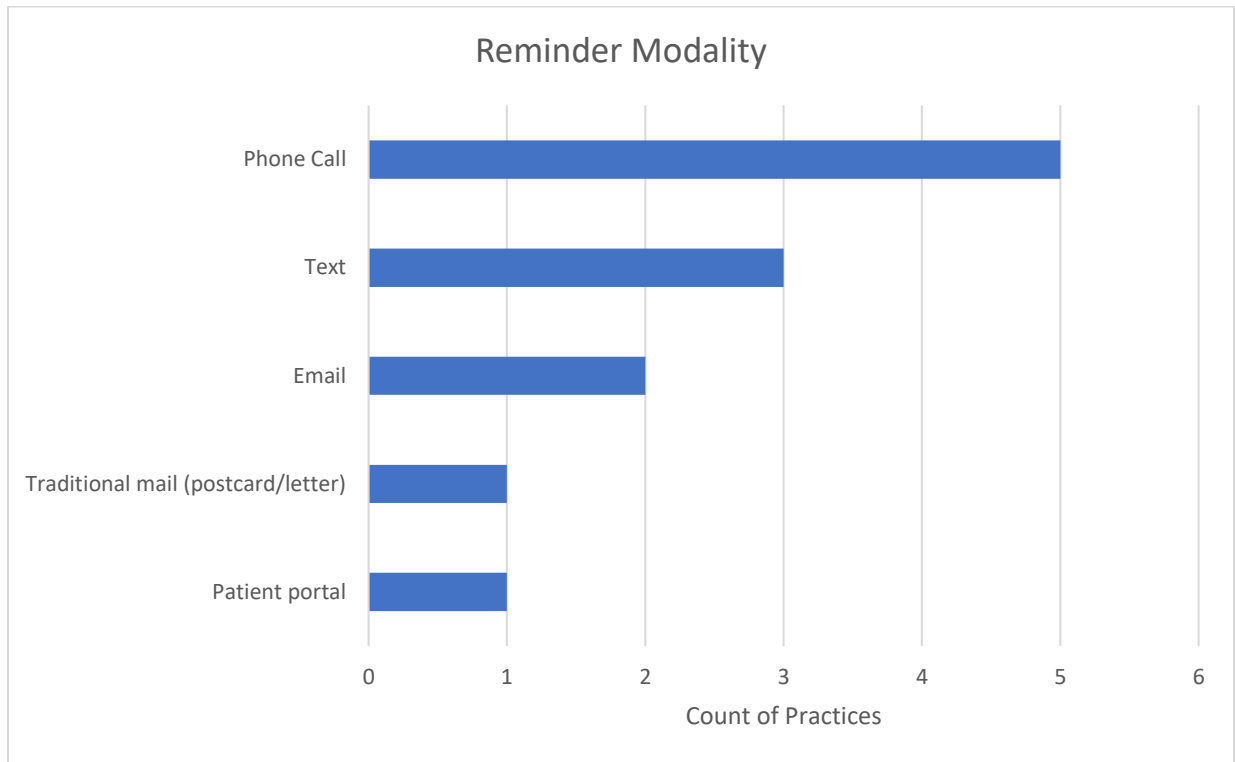


| Value   | Percent | Responses |
|---|---------|-----------|
| The parents and clinicians discuss what vaccines their child is due for and then it is decided which ones should be given | 44.4%   | 4         |
| Clinicians tells parents what vaccines their child needs at the appointment   | 44.4%   | 4         |
| Clinicians ask the parents if there are any vaccines they would like their child to receive at the appointment            | 11.1%   | 1         |

Four practices responded that they work with the parent and discuss together what vaccines their child should receive. Another four practices responded that the clinicians tell parents what their child needs, and one practice stated the clinicians ask the parents what their child needs at the appointment.

*Does your practice send reminders to patients when they are due for a vaccine? How does your practice send patient reminders?*

Four respondents state they consistently send reminders to patients when they are due for a vaccine, while two do not send any reminders, and three practices sometimes send reminders. The graph below depicts the method(s) of communications used by practices who send reminders. Respondents were asked to select all that apply for the methods that best fit their practice.



| Value                              | Responses |
|------------------------------------|-----------|
| Phone Call                         | 5         |
| Text                               | 3         |
| Email                              | 2         |
| Traditional mail (postcard/letter) | 1         |
| Patient portal                     | 1         |

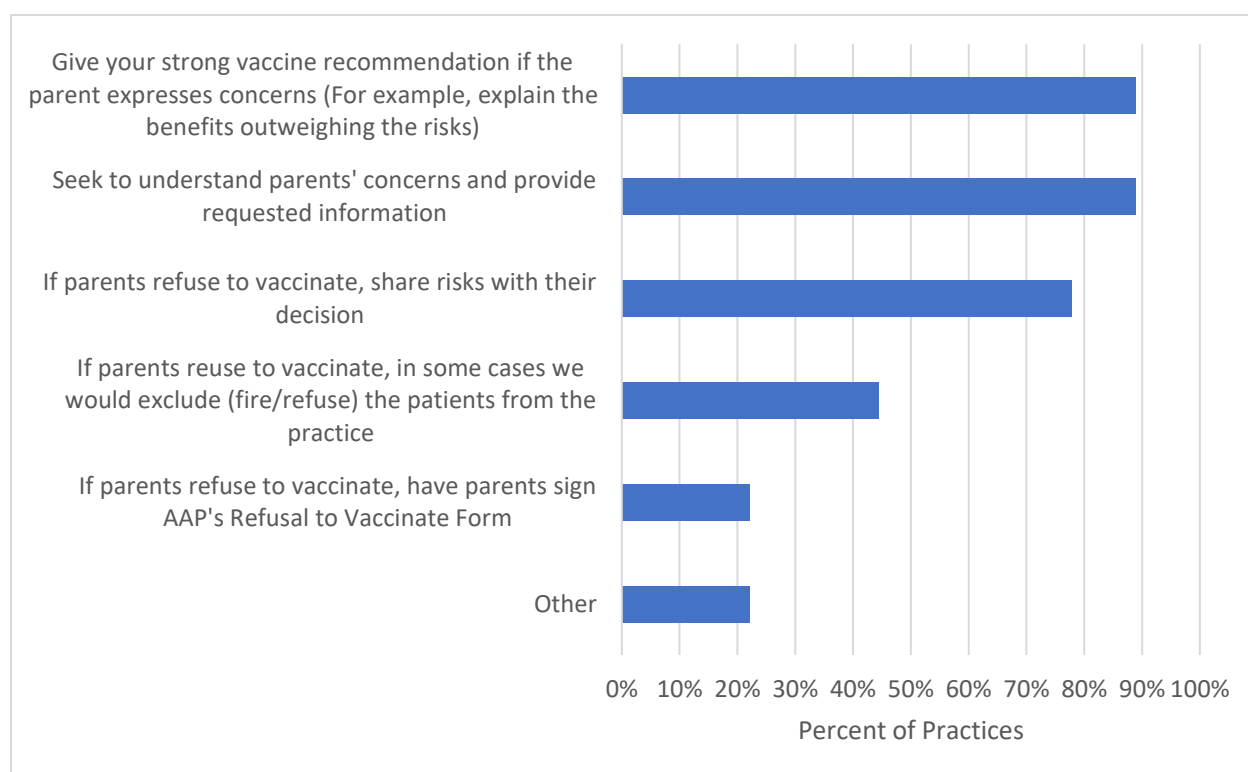
Of the seven practices that responded yes or sometimes to sending out reminders, five of those practices utilize phone calls for one of their methods of communication, with text messages being the second most common method in three practices. Five of the seven practices utilize multiple communication modalities.

*Have any clinicians in your practice received training regarding vaccine hesitancy? What type of training have clinicians in your practice received?*

Of the nine practices that took part in the survey, one practice responded that all clinicians have received training, six practices responded that some of the clinicians have received training, and two practices responded that none of the clinicians received any sort of training. Among practices where all or some clinicians had received training, virtual training (e.g., recording or webinar) was the most commonly used modality (six practices), followed by in-person presentations/workshops (four practices), and academic journals (three practices).

*Does your practice have standard procedures in place for dealing with parents who are hesitant or refuse to vaccinate their children? What procedures are in place?*

All nine practices have procedures in place for dealing with hesitant parents or parents that refuse to vaccinate. The graph below depicts the proportion of practices using various procedures.<sup>3</sup>



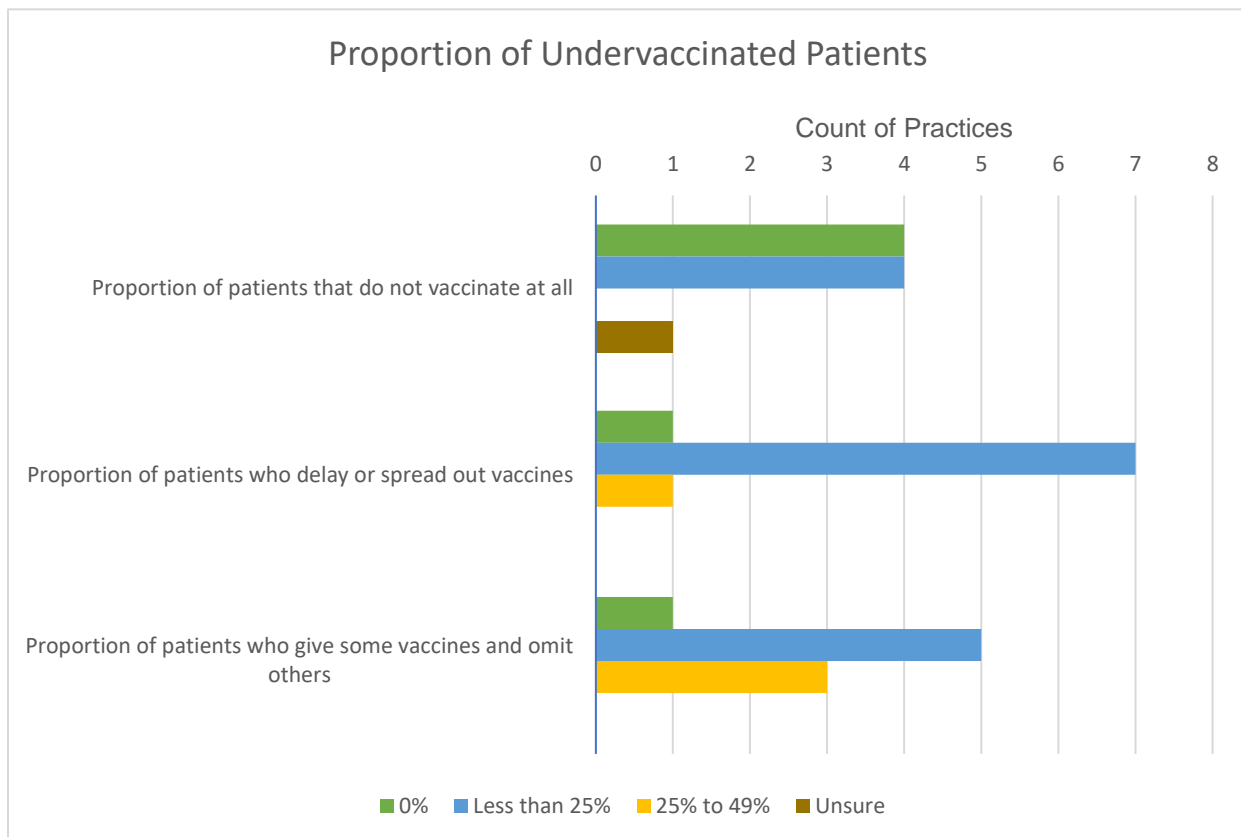
| Value  | Percent | Responses |
|--|---------|-----------|
| Give your strong vaccine recommendation if the parent expresses concerns (For example, explain the benefits outweighing the risks) | 88.9%   | 8         |
| Seek to understand parents' concerns and provide requested information   | 88.9%   | 8         |
| If parents refuse to vaccinate, share risks with their decision  | 77.8%   | 7         |
| If parents refuse to vaccinate, in some cases we would exclude (fire/refuse) the patients from the practice                        | 44.4%   | 4         |
| If parents refuse to vaccinate, have parents sign AAP's Refusal to Vaccinate Form  | 22.2%   | 2         |
| Other  | 22.2%   | 2         |

All eight practices that selected the procedure of giving strong recommendations also selected seek to understand parents' concerns. Seven of the eight practices additionally selected that if parents refuse to vaccinate, they share information on risks related to this decision. Of these seven practices, two additionally responded that they request parents sign the American Academy of Pediatrics Refusal to Vaccinate form. There was a single practice that only selected exclusion of patients who do not vaccinate, but also stated that procedures vary among clinicians in the practice.

Of the four practices that stated they exclude (fire/refuse) patients who do not vaccinate, all said they refuse patients who do not vaccinate *at all*. No practices stated that they would exclude patients who will only vaccinate on a delayed or spread-out schedule, or patients that refuse some, but not all, early childhood vaccines. Additionally, only one of these four practice provided criteria for exclusion. This practice stated that they will allow the patient to go unvaccinated until age two, at which point they will no longer treat the patient until they have begun receiving their early childhood vaccines.

### Practice Characteristics

Participants were asked additional questions regarding their patient population characteristics in relation to early childhood vaccination status.



*Approximately what proportion of patients state they will not vaccinate at all?*

| Value         | Percent | Responses |
|---------------|---------|-----------|
| Unsure        | 11.1%   | 1         |
| 0%            | 44.4%   | 4         |
| Less than 25% | 44.4%   | 4         |
| 25% to 49%    | 0%      | 0         |
| 50% to 75%    | 0%      | 0         |
| Over 75%      | 0%      | 0         |

*Approximately what proportion of parents request to delay or spread-out early childhood vaccines?*

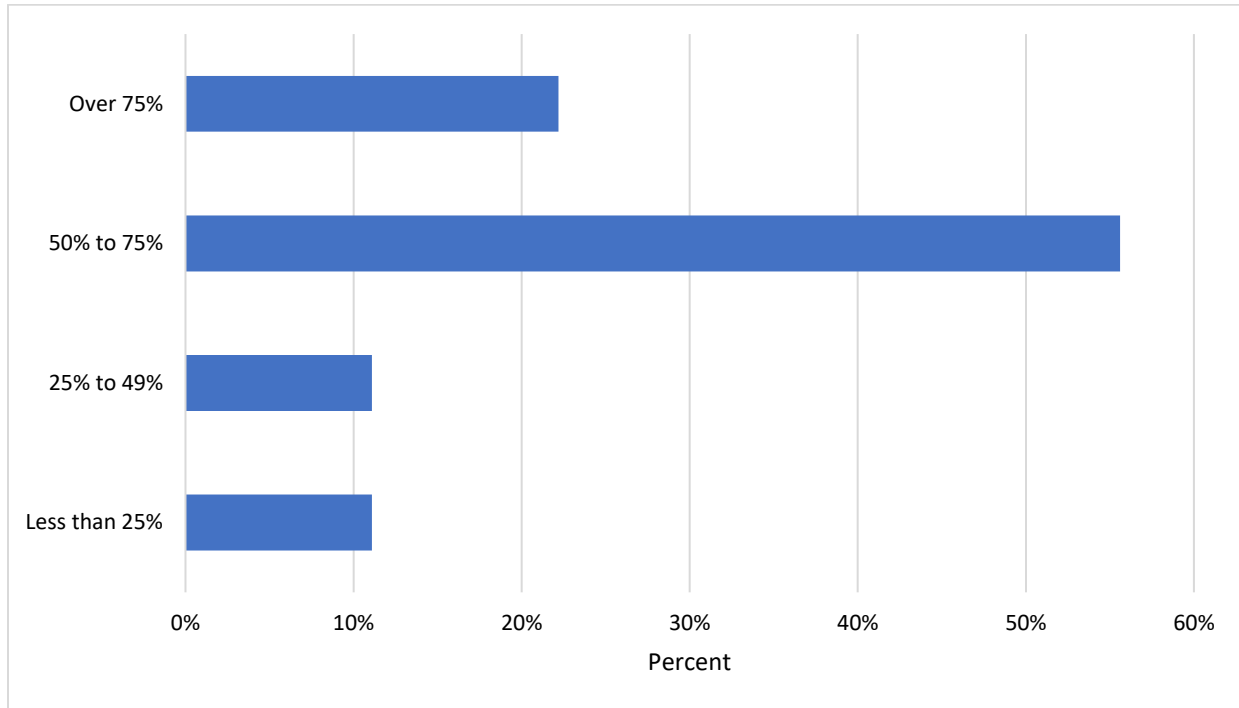
| Value         | Percent | Responses |
|---------------|---------|-----------|
| Unsure        | 0%      | 0         |
| 0%            | 11.1%   | 1         |
| Less than 25% | 77.8%   | 7         |
| 25% to 49%    | 11.1%   | 1         |
| 50% to 75%    | 0%      | 0         |
| Over 75%      | 0%      | 0         |

*Approximately what proportion of parents only want to give some early childhood vaccines and omit others?*

| Value         | Percent | Responses |
|---------------|---------|-----------|
| Unsure        | 0%      | 0         |
| 0%            | 11.1%   | 1         |
| Less than 25% | 55.6%   | 5         |
| 25% to 49%    | 33.3%   | 3         |
| 50% to 75%    | 0%      | 0         |
| Over 75%      | 0%      | 0         |

Four of the nine practices responded that 0% of their patients do not vaccinate at all, indicating that they exclude or will not accept patients who do not vaccinate. Four practices responded that less than 25% of the patient population is unvaccinated and one practice said they were unsure. Seven practices reported less than 25% of parents requesting to delay or spread-out early childhood vaccines, with one practice each stating 0% and 25-49% do so. Regarding proportion of parents who want to omit some vaccines, five of the nine reported that less than 25% do this, three of the nine report 25-49% do this, and one practice stated 0%, indicating they exclude patients from the practice who do not receive all early childhood vaccines.

*Approximately what proportion of your patient population lives in Putnam County?*



| Value         | Percent | Responses |
|---------------|---------|-----------|
| Over 75%      | 22.2%   | 2         |
| 50% to 75%    | 55.6%   | 5         |
| 25% to 49%    | 11.1%   | 1         |
| Less than 25% | 11.1%   | 1         |

Although all nine participating practices are located in Putnam County, their patients are not limited to residents of Putnam County. Two practices reported that over 75% of their patient population are Putnam County residents, five practices have a patient population of 50-75% Putnam County residents, and one practice each have 25-49%, and less than 25% of patients from Putnam County.

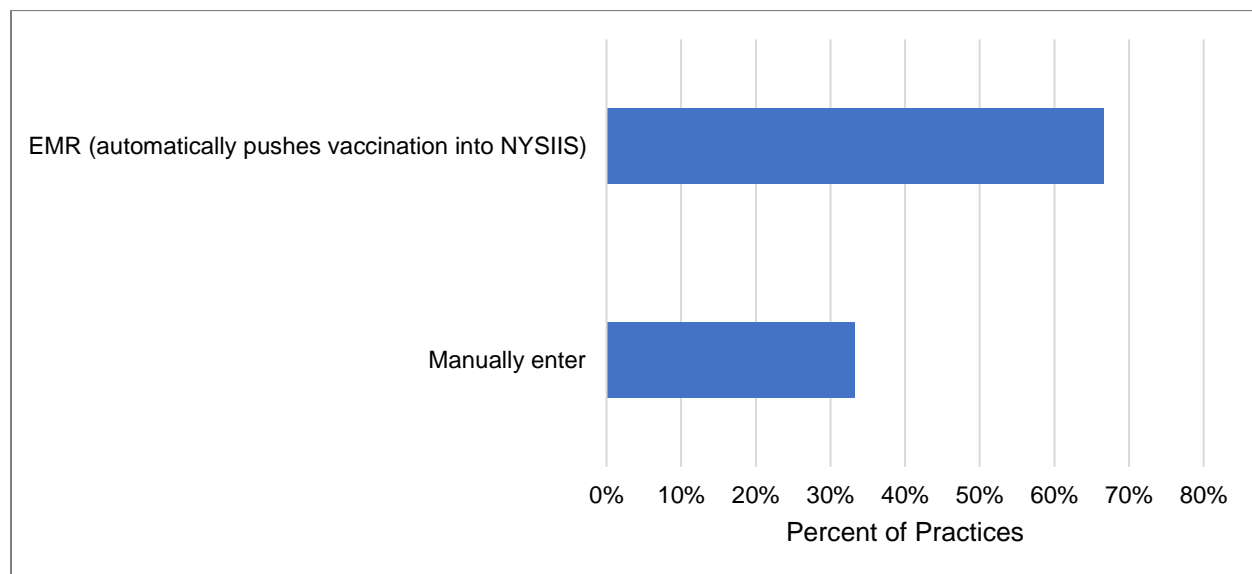


## New York State Immunization Information System (NYSIIS)

The final section of the survey contained questions regarding the New York State Immunization Information System (NYSIIS), NY's web-based statewide immunization registry. Utilization of this database is mandated by the New York State Department of Health for all vaccines administered to children less than 19-years-old.<sup>4</sup> This database allows providers to input vaccination records and run reports for their practice.

*How do you comply with the mandate to enter early childhood vaccinations in NYSIIS?*

When asked how they comply with the mandate to enter early childhood vaccines into NYSIIS, three practices reported they manually enter vaccination records for all of their patients into NYSIIS, while six reported that their electronic medical record (EMR) automatically pushes the vaccination data into NYSIIS.



| Value  | Percent | Responses |
|--|---------|-----------|
| EMR (automatically pushes vaccination into NYSIIS) | 66.7%   | 6         |
| Manually enter                                     | 33.3%   | 3         |

Of the six practices whose EMR pushes data to NYSIIS, one-third routinely verify that the data has transferred correctly into NYSIIS, while the other two-thirds report that they only verify the data sometimes.

Finally, given a scenario in which a parent brings vaccine records from another practice, respondents were asked if they would check to ensure these records were in NYSIIS, and if not, enter the data into the system as a historical vaccination. Historical vaccinations in NYSIIS are vaccines that a child received from another practice that the clinicians at the current practice did not administer. Eight of the nine practices reported that they always check to ensure vaccines are in NYSIIS, and one practice reported that they mostly check to ensure vaccines are in NYSIIS and input historical vaccines.

## Discussion & Recommendations

Although there are only nine VFC practices in Putnam County, they vary greatly in size and structure. Of the nine practices, two are solo/small practices, five are part of larger entities, one is a federally qualified health center, and the last is the Putnam County Department of Health. The solo/small practices are independent businesses with only one physician and a smaller patient pool as compared to the larger entities employing multiple providers that are part of larger healthcare conglomerates. The federally qualified health center is the county's primary site providing affordable and quality primary care to patients who may not otherwise be able to access healthcare.<sup>5</sup> PCDOH is the safety net provider for vaccine administration and is not generally the primary source for patients to receive early childhood vaccinations.

We found notable differences in survey results by practice type, including differences regarding vaccine reminders, NYSIIS utilization, and exclusion of patients who do not vaccinate. For vaccine reminders, two of the larger entities that are part of the same conglomerate do not utilize reminders, while the seven other respondents utilize some form of reminder. For NYSIIS utilization, all three solo/smaller practices manually enter vaccination records from their EMR into NYSIIS, as their EMR is not set up to automatically push the data. On the other hand, the larger entities, along with the federally qualified health center, have EMR systems that automatically push vaccination data inputted into their EMR into NYSIIS. The lack of automated data transfer in small/solo practices could present greater risk for human error impacting data quality in NYSIIS. Of the four practices who exclude (fire/refuse) patients that do not vaccinate, three are practices that are part of larger entities (60% of larger practices included in the survey), and the remaining practice is a small/solo practitioner. Exclusion policies may be more common in larger practices because they do not have mandates to provide healthcare and are able to turn away patients. On the other hand, exclusion is not viable for a federally qualified health center or the health department because both are mandated to provide access to healthcare.

Survey limitations include sample size and proportion of patients in participating practices who reside in Putnam County. With only nine practices, we are unable to make inferences on the association between training in vaccine hesitancy, use of reminders, or other practice policies with vaccine rates. However, information obtained in the survey delineates what strategies could be employed to increase vaccine rates by practice. Likewise, this survey of county VFC providers is limited in its ability to describe early childhood vaccination at the population level because a portion of county residents obtain services from practices outside the county, and practices surveyed service populations that reside both in and out of Putnam County. A survey of parents of children between two to five years of age was run concurrently with this survey of VFC providers and will be an additional source of information on early childhood vaccination at the population level.

Our survey results reveal two strategies that could be leveraged to increase vaccination rates. Only two of the nine survey participants responded that clinicians make vaccine recommendations at well and sick child visits. Increasing the frequency and consistency of communicating the importance of staying up to date on vaccines may increase vaccine acceptance.<sup>6</sup> These conversations can be part of any visit to help encourage early childhood vaccinations to ensure increased protection against severe illness. An additional strategy is to increase utilization across all practices, and consistency within individual practices, of reminders/recalls (RR) notifications. Only half of survey participants responded that they send patients reminders when they are due for vaccines. Increasing utilization of RR, particularly by text message, has been shown to be effective in improving vaccination rates.<sup>7, 8</sup>

## References

1. <https://www.cdc.gov/vaccines/programs/vfc/about/index.html>
2. [https://webbi1.health.ny.gov/SASStoredProcess/guest?\\_program=%2FEBI%2FPHIG%2Fapps%2Fdashboard%2Fpa\\_dashboard&p=ch&cos=37](https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fdashboard%2Fpa_dashboard&p=ch&cos=37)
3. <https://www.cdc.gov/vaccines/hcp/conversations/talking-with-parents.html>
4. [https://www.health.ny.gov/prevention/immunization/information\\_system/faq\\_immunization\\_information\\_system.htm](https://www.health.ny.gov/prevention/immunization/information_system/faq_immunization_information_system.htm)
5. <https://bphc.hrsa.gov/about-health-centers/what-health-center>
6. <https://www.cdc.gov/vaccines/programs/iqip/talking-to-parents.html>
7. <https://pubmed.ncbi.nlm.nih.gov/33958086/>
8. <https://www.thecommunityguide.org/findings/vaccination-programs-client-reminder-and-recall-systems.html>

## Appendix A

### Early Childhood Vaccination Provider Survey

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#### Welcome

The Putnam County Department of Health Immunization Program is conducting a short survey with providers in VFC practices regarding Early Childhood Vaccination.

The survey was created and reviewed by the Health Department with the objective to better understand clinician behavior and practice policies related to early childhood vaccination, and information will inform current intervention to increase vaccination rates in Putnam County.

All of your information will be kept private and confidential, no clinicians from your practice will be identified by name in a survey report.

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#### Provider

1) IQIP practice VFC pin

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2) Number of providers at practice

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3) Name of interviewee

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4) Call back number and extension

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5) Interview status (*For PCDOH use only*)

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#### Pediatrician behavior related to recommending early childhood vaccination

##### 6) When do clinicians in your practice make vaccine recommendations?

- At well child visits
- At well and sick child visits
- Clinicians do not make vaccine recommendations
- Interaction varies between clinicians

##### 7) What best describes clinicians' interactions with patients concerning vaccines?

- Clinicians tell parents what vaccines their child needs at the appointment
- The parents and clinicians discuss what vaccines their child is due for and then it is decided which ones should be given

Clinicians ask the parent if there are any vaccines they would like their child to receive at the appointment

Clinicians do not talk about vaccines

Interaction varies between clinicians in practice

Other - Write In (Required): \_\_\_\_\_ \*

**8) Does your practice send reminders to patients when they are due for a vaccine?**

Yes

No

Sometimes

***If “Yes” or “Sometimes” to question 8:***

**9) How does your practice send your patients reminders?**

Email

Text

Phone call

Traditional mail (postcard/letter)

Patient portal

Other - Write In (Required): \_\_\_\_\_ \*

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How are pediatricians responding to hesitant parents?

**10) Have any clinicians in your practice received training regarding vaccine hesitancy?**

None of the clinicians

Some of the clinicians

All of the clinicians

***If “Some of the clinicians” or “All of the clinicians” to question 10:***

**11) What type of training have clinicians in your practice received? (*Resources can be provided upon request*)**

In-person presentations/workshops

Virtual training (recording or webinar)

Academic journals

Other - Write In (Required): \_\_\_\_\_ \*

***If “None of the clinicians” to question 10:***

**12) Is your practice open to receiving training and information on vaccine hesitancy?**

- Yes
- No
- Unsure

**13) Does your practice have standard procedures in place for dealing with parents who are hesitant or refuse to vaccinate their children? (For example, give strong vaccine recommendations, understand parents' concerns, provide AAP's Refusal to Vaccinate form, or exclude from practice)**

- Yes
- No

***If “Yes” to question 13:***

**14) What procedures are in place?**

- Give your strong vaccine recommendation if the parent expresses concerns (For example, explain the benefits outweighing the risks)
- Seek to understand parents' concerns and provide requested information
- If parents refuse to vaccinate, share risks with their decision
- If parents refuse to vaccinate, have parents sign AAP's Refusal to Vaccinate form
- If parents refuse to vaccinate, in some cases we would exclude (fire/refuse) the patient from the practice
- Other - Write In (Required): \_\_\_\_\_\*

***If “If parents refuse to vaccinate, in some cases we would exclude (fire/refuse) the patient from the practice” to question 14:***

**15) What is your practice's criteria for excluding/refusing patients who do not vaccinate? (This question only refers to early childhood vaccines (4:3:1:3:3:1:4, not the flu or COVID shots). Select all that apply.**

- We refuse patients who state they will not vaccinate at all
- We refuse patients who state they will only vaccinate on a delayed or spread out schedule
- We refuse patients who state they will only allow their children to be vaccinated with some vaccines and plan to omit others
- Other - Write In (Required)

***If “If parents refuse to vaccinate, in some cases we would exclude (fire/refuse) the patient from the practice” to question 14:***

**16) Does your practice have a set number of attempts to overcome vaccine hesitancy/refusal to vaccinate before excluding a patient?**

- Yes
- No

***If “If parents refuse to vaccinate, in some cases we would exclude (fire/refuse) the patient from the practice” to question 14:***

17) Approximately how many attempts does your practice make to overcome vaccine hesitancy/refusal to vaccinate before excluding a patient.

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### **Patient Population Characteristics**

**18) Approximately what proportion of patients state they will not vaccinate at all? (0% refers to practices who ask about vaccination prior to taking on families/patients)**

- 0%, we do not accept patients who do not vaccinate
- Less than 25%
- 25% to 49%
- 50% to 75%
- Over 75%
- Unsure

**19) Approximately what proportion of parents request to delay or spread out early childhood vaccines? (0% refers to practices who ask about vaccination prior to taking on families/patients)**

- 0%, we do not accept patients who will not comply with vaccination schedule
- Less than 25%
- 25% to 49%
- 50% to 75%
- Over 75%
- Unsure

**20) Approximately what proportion of parents only want to give some early childhood vaccines and omit others?**

- 0%, we do not accept patients who refuse to give any early childhood vaccines
- Less than 25%
- 25% to 49%

- 50% to 75%
- Over 75%
- Unsure

**21) Approximately what proportion of your patient population lives in Putnam County?**

- Less than 25%
  - 25% to 49%
  - 50% to 75%
  - Over 75%
  - Unsure
- 

**Practice Use of the NYS Immunization Information System (NYSIIS)**

**22) How do you comply with the mandate to enter childhood vaccination in NYSIIS?**

- Manually enter
- EMR (automatically pushes vaccination into NYSIIS)
- Other - Write In (Required): \_\_\_\_\_ \*

***If “EMR (automatically pushes vaccination into NYSIIS)” for question 22:***

**23) Do you routinely verify the transfer of data from EMR to NYSIIS? (For instance, if your EMR is updating and patient information does not transfer data, do you check for verification and accuracy)**

- Yes
- No
- Sometimes

**24) If a parent comes in with vaccination records from another practice that you did not administer, do you routinely check to ensure these records are in NYSIIS and input that data as historical vaccination if not present? (Historical vaccination in NYSIIS: vaccinations that a child has received at another practice that you did not administer)**

- Always
  - Mostly
  - Sometimes
  - Never
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## **Thank You!**

If you have any questions or would like additional information and resources, please contact the Putnam County Department of Health Immunization Program: 845-808-1332.

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