AIM of this project  
Describe the aim of this project. What are you trying to accomplish? Every aim will require multiple small tests of change.

Over the next 15 months, among our patients ages 18 to 24 months, we will increase (below are samples, consider assessing practice rates and determining which vaccines are your biggest priority. Also consider using standing orders for adolescent vaccines):

- The percentage who are up-to-date on DTaP vaccine to 90%
- The percentage who are up-to-date on MMR vaccine to 90%
- The percentage who are up-to-date on the Combined 7-Vaccine series to 90%*

*Includes ≥4 DTaP doses, ≥3 Polio doses, ≥1 MMR dose, Hib full series, ≥3 HepB doses, ≥1 Varicella dose, and ≥4 PCV doses

Plan  
Describe the proposed test. What performance gap will it address? What idea will you test? What barriers will you need to overcome? What do you predict will happen?

Performance Gap
Our providers are very pro-vaccination, but we are hectic and often forget to order vaccines, especially when a child is not in for well care (but even sometimes when the purpose of the visit IS well care). We all agree with using the AAP immunization schedule, but slip up—especially during August when it’s crazy busy with back to school visits and February when we are swamped with sick visits.

Idea for Test
Our trial will be having MAs administer vaccines with a standing order if there is a licensed provider** present when vaccinating. (Note: some states may not allow MAs to administer vaccines. Each of the 50 states separately regulates physicians, nurses, MAs and other health-related practitioners. Contact your state immunization program or the appropriate state body [e.g., state board of medical/nursing/pharmacy practice] to determine who is authorized to administer vaccines under standing orders.)

**Often an RN fills this role. Practices without an RN should decide who would be most appropriate to fill this role.
For all children, the MAs will do the following (consider only doing this for children 2 and under, if it is too difficult to do for all children):

1. As soon as possible when the patient arrives, check the immunization record to see if any vaccines are due and if there are any contraindications to vaccination.
2. If a vaccine is due, the MA will prepare it.
3. The MA will check everything with a licensed provider before administering the vaccine (and the vaccine can be administered either before or after the doctor has seen the patient, or during a vaccine-only visit).
4. The MA will do all the charting per routine.
5. If the parent declines vaccination, the MA will ask the parent to speak to the physician about the vaccine, notify the physician, and track the outcome on our Vaccine Refusal Board (does talking to the physician lead to a change of heart about accepting a recommended vaccine?).

Barriers:
- The MA has to check with a licensed provider before administering the vaccine. If the physician is the only one available it wouldn’t save him/her any time.
- The patient record could be inaccurate and MAs should double check with the immunization registry. (The MA can also ask the parent if any other vaccines had been received, but receipt of a vaccine outside the office that is not in the registry should be verified).
- Parents may think it’s odd if the child is vaccinated before the doctor part of the visit?
- MAs may not be allowed to administer vaccines in some states. Each of the 50 states separately regulates physicians, nurses, MAs and other health-related practitioners. Contact your state immunization program or the appropriate state body (e.g., state board of medical/nursing/pharmacy practice) to determine who is authorized to administer vaccines under standing orders.
- Using standing orders results in different coding for immunization administration. Depending on your payers, this may affect overall payment for vaccine administration. Using Standing order for adolescent vaccines may be very effective.

Measures

What is the desired goal that will close the performance gap? Describe the specific measures that will determine a successful outcome for the test.

How we will measure our rates:
1. Aaron (the project manager) will sample all charts of patients 2 years and younger who come into the office for any reason over a 2-week period (up to 20 patients who arrive for any reason).
2. Ashley (the nurse) will check the charts for each of the 20 patients and record their vaccination status for the vaccine relevant to our project’s aim.

The table shows our current situation and our goal

<table>
<thead>
<tr>
<th>Up-to-date patents</th>
<th>Current Number of charts (percentage)</th>
<th>Current Number of charts (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP</td>
<td>14/20 (70%)</td>
<td>18/20 (90%)</td>
</tr>
<tr>
<td>MMR</td>
<td>14/20 (70%)</td>
<td>18/20 (90%)</td>
</tr>
<tr>
<td>Combined 7-Vaccine Series*</td>
<td>12/20 (60%)</td>
<td>18/20 (90%)</td>
</tr>
</tbody>
</table>

*Includes ≥4 DTaP doses, ≥3 Polio doses, ≥1 MMR dose, Hib full series, ≥3 HepB doses, ≥1 Varicella dose, and ≥4 PCV doses
## Predicted outcome:

Describe your plan for change. List the tasks and tools needed to perform the test. Predict what will happen when the test is carried out?

- The MAs and licensed provider(s) will be nervous at first, but soon this will be the routine and waiting for physician orders will seem slow!
- By the month’s end, 90% of the patients whose medical records were reviewed, will reflect the patient is up-to-date on all recommended vaccines.

### Do

Make a change! Try your change with a few patients over a short period of time. Collect data that can be measured. Describe what happened when you ran the test.

Only Becky and Cara (MAs) used the new process this week and it went pretty well. Angie (RN) worked really hard to make herself available ASAP (Angie is also an Immunization Champion). One doctor was a little put out and voiced a negative opinion of “protocol medicine,” but Dr. B talked to her and reminded her of our coverage rates at the start.
Did the change lead to the desire improvement? *Describe how the measured results compare to the predicted outcome.*

1. We saw some improvement in the rates for DTaP and MMR, but the composite rates did not change as much. We want to make sure the MAs are checking for all vaccines due at each visit.

2. Last week, 4 parents wanted to talk to the doctor before immunization and of those 2 still ended up refusing a vaccine.

<table>
<thead>
<tr>
<th>Up-to-date patients</th>
<th>Baseline Number of charts (percentage)</th>
<th>Cycle 1 Number of charts (percentage)</th>
<th>Goal Number of charts (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP</td>
<td>14/20 (70%)</td>
<td>16/20 (80%)</td>
<td>18/20 (90%)</td>
</tr>
<tr>
<td>MMR</td>
<td>14/20 (70%)</td>
<td>17/20 (85%)</td>
<td>18/20 (90%)</td>
</tr>
<tr>
<td>Combined 7-Vaccine Series*</td>
<td>12/20 (60%)</td>
<td>13/20 (65%)</td>
<td>18/20 (90%)</td>
</tr>
</tbody>
</table>

*Includes ≥4 DTaP doses, ≥3 Polio doses, ≥1 MMR dose, Hib full series, ≥3 HepB doses, ≥1 Varicella dose, and ≥4 PCV doses

Describe how you will modify the plan. *In the next test cycle based on “learnings” from this cycle. Or, describe a new idea to test to help you achieve your aim.*

- **Measure:** We will continue with the same measures for at least another cycle.
- **Train:** We decided to draft a list of all vaccines that patients in our target population could need (either per the schedule or for catch up) and post near the standing order forms to help MAs remember to vaccinate for all appropriate vaccines. Dr B will discuss these vaccine with the MAs so they can be familiar with all of them.

  Dr B will also discuss the contraindications checklist with Becky and Cara. They are nervous about making an error, so the team will also print out a more complete list from the CDC of conditions that are contraindications or precautions.

- **Motivate:** We decided that ALL the staff need to see the info on office rates so everyone will see and remember WHY we are doing this. Aaron’s going to post the chart every Monday morning. The bad thing about this is that the improvement will be so slow.

- **Follow-up:** We will have a team huddle on Monday mornings after the chart is posted to discuss specific concerns or goals for the week.

End of Cycle 1