**Example 4, Missed Opportunities to Vaccinate: DO, STUDY & ACT phases**

### MODEL FOR IMPROVEMENT

#### Team Name: Loving Pediatrics

**Plan a Test of Change**

<table>
<thead>
<tr>
<th>Objective for this PDSA Cycle (Aim):</th>
</tr>
</thead>
<tbody>
<tr>
<td>By March 1, our practice will reduce the number of missed opportunities (MOs) to vaccinate to no more than 5%, with simultaneous doses of all eligible vaccines being the standard of care for immunizing all of our patients.</td>
</tr>
</tbody>
</table>

#### PLAN:

**QUESTIONS:** Can we reduce MOs in our practice by clearly identifying all of the vaccines due for a patient at that visit?

**PREDICTIONS:** We can reduce MOs only down to 15% because of parents’ vaccine hesitancy.

#### PLAN FOR CHANGE OR TEST: WHO, WHAT, WHEN, WHERE

On Thursday, Maria (LPN) will assess and put an alert in the record for each patient being seen by Dr. Correll that day who is due for one or more immunizations. She will highlight all of the vaccines due at this visit. (Note: This will be done prior to Dr. Correll seeing the patient). Sandra (MA/Tech) will administer the vaccines to patients.

#### PLAN FOR COLLECTION OF DATA: WHO, WHAT, WHEN, WHERE

At the end of the day, Maria will review each of those patient records and record if all recommended vaccines due were administered (yes/no). She will also record vaccines still needed (due but not given at the visit) and any notes in the record regarding immunizations. % of MOs = Number of patients not receiving all eligible vaccines/total # of patients needing vaccine(s).

### DO: CARRY OUT THE CHANGE OR TEST; COLLECT DATA AND BEGIN ANALYSIS.

REPORT THE RESULTS OF YOUR TEST HERE. Describe observations, problems encountered, and special circumstances.

Of the 30 patients that Maria roomed today for Dr. Correll, she identified that 20 of them were due for immunizations and highlighted all of the vaccines that were due. Dr. Correll reported that Maria’s assessments agreed with his and it was helpful to have all vaccines due highlighted. By the end of the day, all 20 of those charts were reviewed and 16 of those patients are now up to date with immunizations (80%).

### STUDY: COMPLETE ANALYSIS OF DATA; SUMMARIZE WHAT WAS LEARNED

Based on analysis, 4 (20%) patients needing immunizations did not receive everything they were due to get. Review of those 5 charts showed 2 (11 yr. olds) did not get Tdap because we are out of vaccine. 2 infants seen for 12-mos. visit did not get all shots (1 parent refused MMR and made appoint. to come back next week for flu shot because concerned about too many shots today, 1 patient received 4 doses and was advised by Sandra to come back for other vaccines but no next appoint. was made).

1. Tdap vaccine unavailable due to backorder. Will be shipped next week
2. Note put in patient record to discuss MMR vaccine when patient comes back for flu shot next week. Will identify at least 1 parent education resource in our Toolkit to share with this patient/family.
3. Sandra indicated she is not comfortable giving more than 4 vaccinations to a child at 1 visit. She will watch the DVDs we have on vaccine administration and meet with Deb (Nurse Manager) on Monday.

### ACT: ARE WE READY TO MAKE A CHANGE? Modifications or refinements to the test?

**PLAN FOR THE NEXT CYCLE**

Cycle #2 (same Plan) will be done on Tuesday (1/15) to again test simultaneous doses of vaccine and assess MOs.

---

*Developed by Ruth S Gubernick, MPH for the Comparison of Immunization Quality Improvement Dissemination Strategies Project (2013)*