

Continuous Quality Network (CQN) Pediatric Asthma

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Rationale

Performance measurement, benchmarking and continuous quality improvement have been identified as national health system priorities – Practical systems which support chronic disease management are not routinely available.

Methods



8 pediatric practices from AAP-CA2 participated in a ten month Learning Collaborative designed to help practices improve the care and outcomes of children with asthma by implementing the NHLBI/NAEPP asthma guidelines. Practice teams participated in a series of 4 learning sessions followed by action periods to try out changes in their ---setting. During the action period, practices measured their progress toward improvement goals. Expert faculty coached practice teams to assist them in applying key change ideas into their own offices/clinics. A multi-disciplinary "Core ---QI team" of clinical and administrative staff from their office consisted of a Lead Physician, Nurse / Nurse Practitioner or Medical Assistant, Practice Manager. -Full participation of the Core QI team included attendance at each of the 4 learning sessions (2 in person, 2 via webinar), participation in monthly conference calls and listserv discussions. The Core QI team met at least bi-weekly to plan and carry out small tests of change.

National Registry

The AAP provided access to a national asthma registry at no cost for the entire length of the project. Each practice signed the National Asthma Registry Participation Agreement which includes a Business Associate Agreement and Data Use Agreement with the AAP to allow the collection of Protected Health Information (PHI) to be entered in a National Asthma Registry, in full compliance with all HIPAA data protection requirements.

Data Collection

Collected data at the point of care used the CQN encounter form entering monthly data into a registry and completed surveys (Value, Sustainability Survey and Bi-monthly Practice Narrative)

CQN4 Asthma Data Collection Form

First Name: _____ Last Name: _____ Date of Birth: ____/____/____ MRN: _____
 Email address: _____ Insurance Company: _____
 Date of Visit: ____/____/____ Attending Physician: _____ Patient's first encounter form? ☐ Yes ☐ No
 Reason for visit: ☐ Asthma w/asthma ☐ Asthma exacerbation ☐ Asthma exacerbation follow up ☐ Spirometry visit ☐ Other

PARENT SECTION – Please complete questions 1-13. Thank you for helping us care for your child.

1. Has your child missed any days of school/daycare due to asthma in the past 6 months? ☐ Yes ☐ No ☐ Does not attend
 If yes, enter the number of days of school/daycare your child has missed in the past 6 months due to asthma ____ # of days
 2. Have you or your spouse missed any work days due to your child's asthma in the past 6 months? ☐ Yes ☐ No ☐ Not currently employed
 If yes, enter the number of days of work you or your spouse have missed in the past 6 months due to your child's asthma ____ # of days
 3. Has your child visited an Emergency Room or Urgent Care Center due to asthma in the past 12 months? ☐ Yes ☐ No If yes, how many visits? ____
 4. Has your child been admitted to the hospital due to asthma in the past 12 months? ☐ Yes ☐ No If yes, how many admissions? ____
 5. During the past week, how often did your child need a fast acting or quick relief medication, at times other than before exercise? (includes Albuterol, Ventolin®, Proventil®, Xopenex®) ☐ Not at all ☐ Less than 1 time per day ☐ 1-3 times per day ☐ 4 or more times per day ☐ Not sure
 6. For patients who use rescue/controller inhalers, is a spacer utilized? ☐ Yes ☐ No ☐ Not Sure
 7. How often does asthma limit your child's activities? ☐ Not at all ☐ A little of the time ☐ Some of the time ☐ Most of the time ☐ All of the time
 8. Over the previous 2 to 4 weeks, how frequently has your child experienced episodes of cough, shortness of breath, wheezing or reduced activity due to asthma during the DAY? ☐ 2 or fewer days per week ☐ more than 2 days per week but not daily ☐ Daily ☐ Throughout the day
 9. Over the previous 2 to 4 weeks, how frequently has your child experienced episodes of cough, shortness of breath, wheezing or waking up due to asthma at NIGHT? ☐ 2 or fewer times per month ☐ 3-4 times per month ☐ More than 1 time per week but not nightly ☐ Often 7 times per week
 10. How would you rate your child's asthma control during the past month? ☐ Very poorly controlled ☐ Not well controlled ☐ Well controlled
 11. How comfortable are you in your ability to manage your child's asthma, rated on a scale of 1-10? (Please circle)
 Not Comfortable = 1 2 3 4 5 6 7 8 9 10 = Very Comfortable
 12. Please mark all things (triggers) that make your child's asthma worse:
☐ Respiratory infections ☐ Weather/Climate ☐ Changes in weather ☐ Cold Air ☐ Air conditioning/heating ☐ Strong cleaners, air fresheners, aerosols, VOC's
☐ Exercise/Increased Activity ☐ Irritants (select all that apply) ☐ Tobacco Smoke ☐ Wood Smoke ☐ Air Pollution ☐ Perfumes ☐ Incense
☐ Allergens (select all that apply) ☐ Carpeting ☐ Cockroaches ☐ Rodents ☐ Animals ☐ Dust ☐ Pollen ☐ Stuffed Animals ☐ Outdoor ☐ Food ☐ Mold
 Other: _____ ☐ Don't know ☐ None
 13. When are asthma symptoms worse? (Check all that apply) ☐ Winter ☐ Spring ☐ Summer ☐ Fall

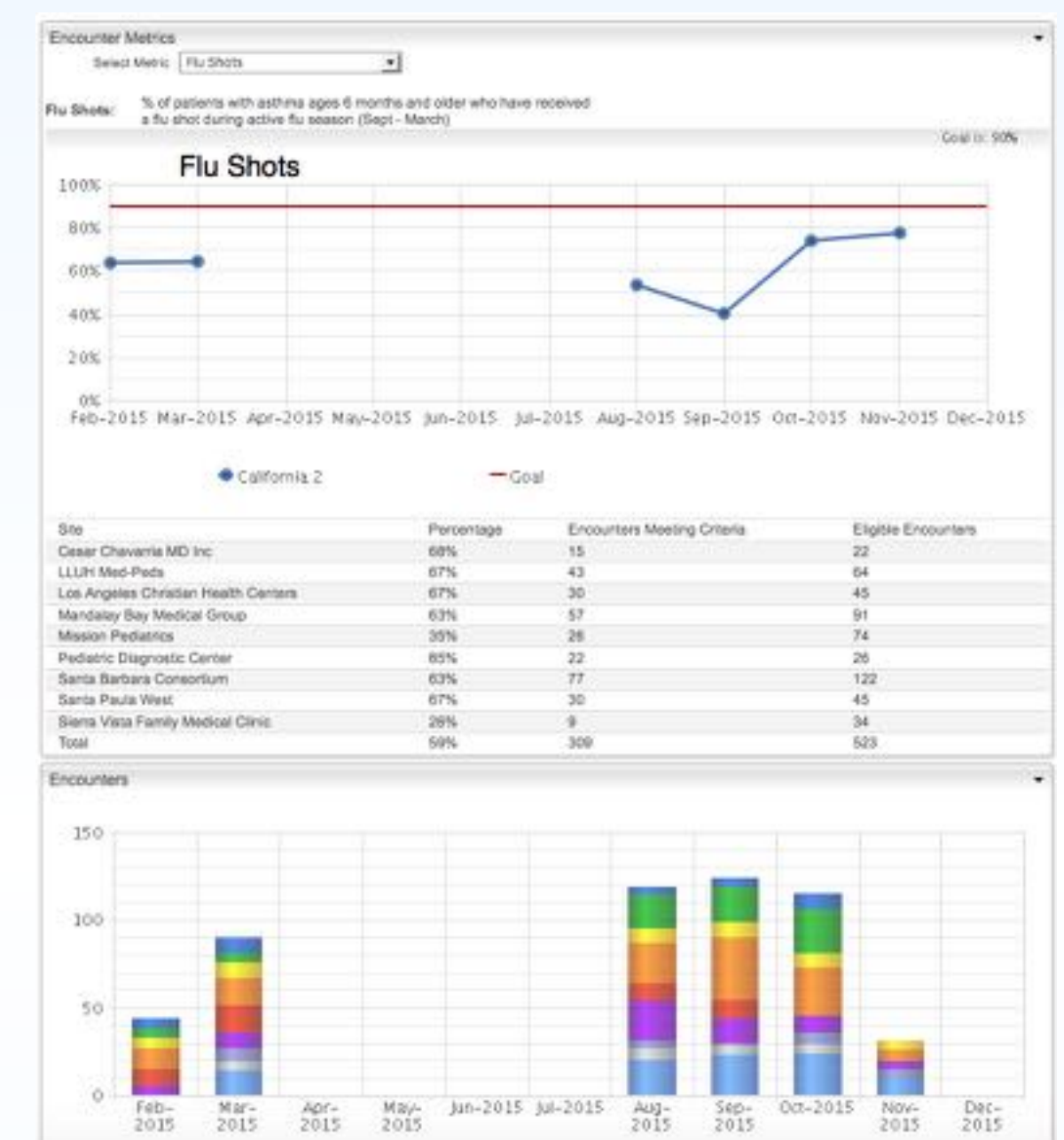
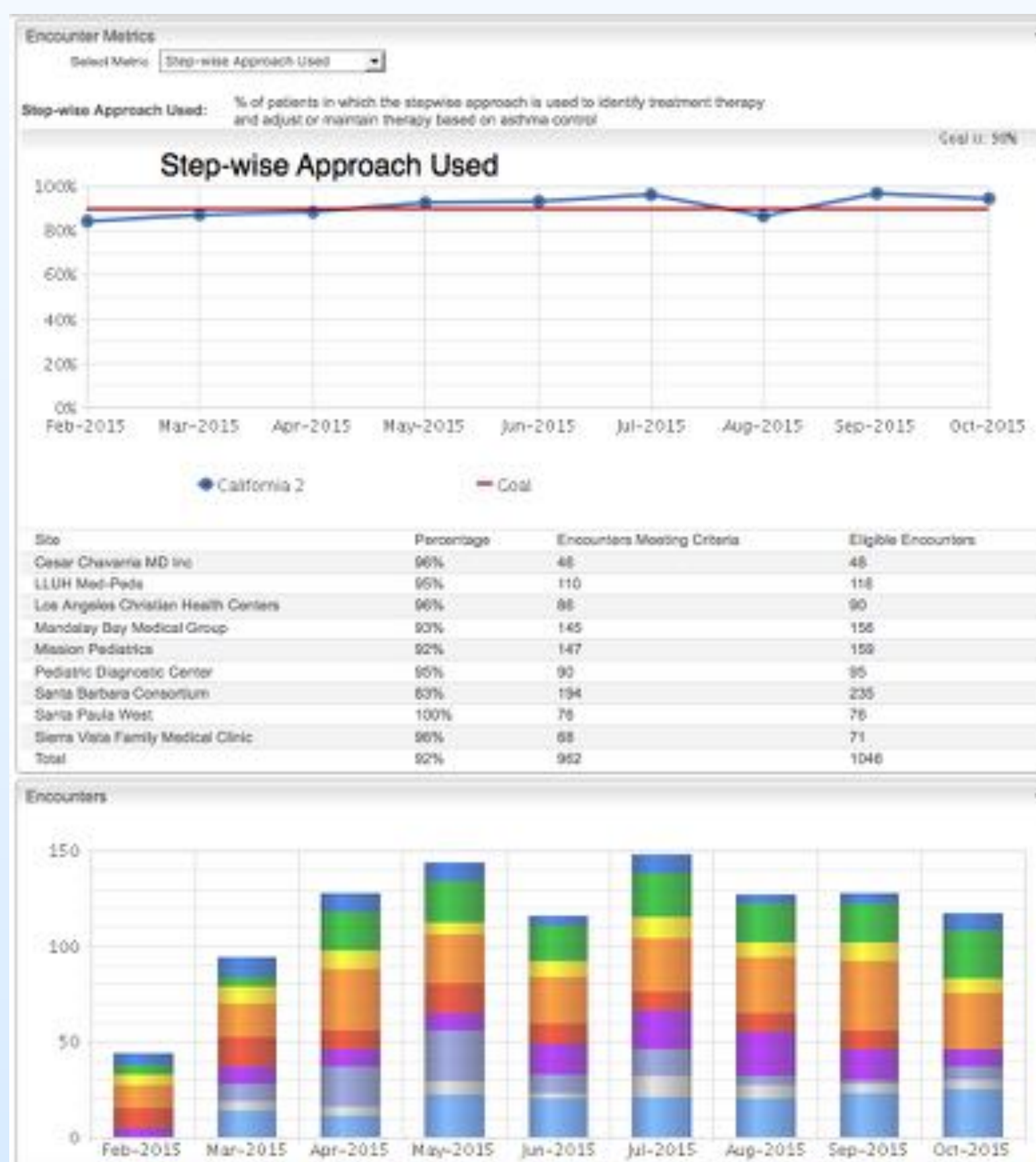
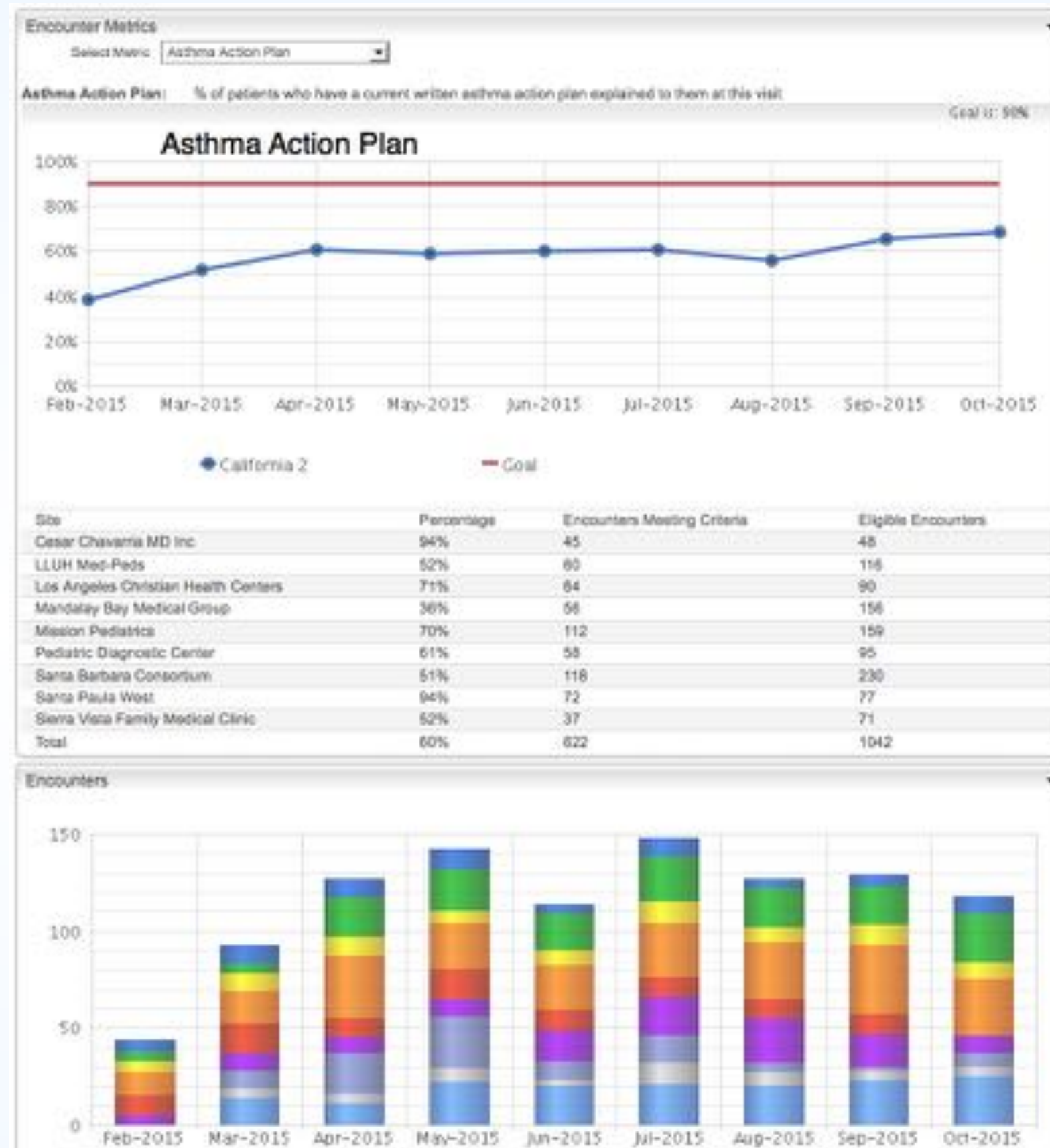
PHYSICIAN SECTION

14. Has the patient received oral steroids for bronchospasm within the past 12 months? ☐ Yes ☐ No
 15. Indicate the patient's asthma severity level. (refer to the EPR-3 Tables 4-2b, 4-2c, and 4-4)
☐ Severe Persistent ☐ Moderate Persistent ☐ Mild Persistent ☐ Intermittent
 16. Physician assessment of control: What is the patient's current level of control during the past month? (refer to the NHLBI EPR-3 control tables - 3-5b, 3-5c, 3-5d, 4-3b, 4-3c, 4-7)
☐ Well controlled ☐ Not well controlled ☐ Very poorly controlled
 17. Have you used the age-appropriate NHLBI EPR-3 stepwise table to identify treatment options or to adjust therapy based on asthma control? (refer to the Stepwise Tables 4-1a, 4-1b, 4-3) ☐ Yes ☐ No
 18a. Is the patient on a controller medication? ☐ Yes ☐ No Medication name: _____
 18b. If yes, does the patient report using controller medication daily? ☐ Yes ☐ No ☐ Started this visit
 19a. Does the patient have a written asthma action plan? ☐ Yes ☐ No
 19b. If yes, was the plan updated as needed and reviewed with the patient and/or family at this visit? ☐ Yes ☐ No
 20. For patients age 5 years and older, has the patient had spirometry in the past 1-2 years? (Refer to Box 3-2)
☐ Yes: date ____/____/____ ☐ No ☐ N/A -Younger than 5 years
 21. Were asthma patient/family educational materials (other than the asthma action plan) provided and explained at this visit? ☐ Yes ☐ No
☐ Medication education ☐ Environmental triggers ☐ Smoking cessation ☐ Flu shot info ☐ Allergy testing ☐ Use of a spacer ☐ Other: _____
 22a. September-March (active flu season): Was a flu shot received? ☐ Yes date ____/____/____ ☐ No (see below)
 If no, reason ☐ Patient younger than 6 months ☐ Other contraindications ☐ Vaccine unavailable ☐ Other, please specify: _____
 22b. April-August (not flu season): Was a flu shot recommendation made for upcoming flu season? ☐ Yes ☐ No (see below)
 If no, reason ☐ Patient younger than 6 months ☐ Other contraindications
 23. Has the patient been seen by an allergist or pulmonologist during the last 12 months for assistance with asthma management due to severity of illness? (refer to specialist referral criteria) Specialist: _____ ☐ Yes ☐ No ☐ Referred this visit
 24. Asthma Follow-up Visit: Return in ____ weeks, or ____ months

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Results

Practice level data was posted, shared, and reviewed transparently with all clinicians in the practice and across the CQN collaborative (identifiable practice data was not shared outside of the collaborative without permission from the involved practices and from the principal investigator). Practice leaders and chapter leadership team were able to view individual physician improvement data for coaching purposes.



Discussion

Demonstrable improvements included Asthma Action Plans, flu vaccinations, NHLBI Guidelines for use of inhaled steroids, and decreasing smoke exposure. Unexpected roadblocks centered around data security concerns with one practice group experiencing a prior data breach.

Conclusion

A regional CQN with in-person and internet support can demonstrate practice improvement. Sustainability across multiple electronic health care records as opposed to a single central data registry must be addressed.