

Children's Environmental Health

Denver Health Asthma Management Program



2005

Children's Environmental Health
Excellence Award



**DENVER
HEALTH**

Your Community Health Partner

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Pediatric Environmental Health Specialty Unit

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Vaccines and Autism

British doctor's autism research discredited

By Henry Chu
Los Angeles Times

LONDON» The British doctor whose suggestion of a link between the MMR shot and autism caused vaccination rates to plunge conducted his now-discredited research in a dishonest and irresponsible manner, medical authorities here concluded Thursday.

It was the latest development in a long-running health controversy that has seen measles make a comeback among British children after being all but wiped out.

The General Medical Council, Britain's medical regulator, found that Andrew Wakefield acted unethically in the way he collected blood samples from



Andrew Wakefield's study, based on 12 children, linked MMR shots and autism.

children and in his failure to disclose payments from lawyers representing parents who believed the vaccine for measles, mumps and rubella had hurt their kids.

The regulator also concluded that Wakefield acted with "callous disregard" by conducting invasive tests on children that were not in their best medical interests.

Wakefield, who now lives and works in the United States, called the allegations "unfound-

ed and unjust" and expressed deep disappointment with the council's finding.

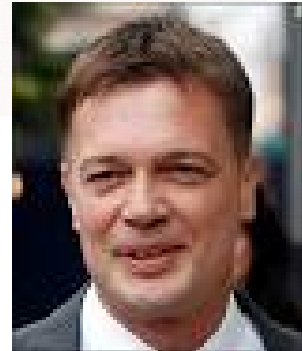
In 1998, Wakefield caused a national — and, later, international — stir with a study published in the prestigious British medical journal *Lancet* that suggested a possible link between the MMR vaccine and child autism.

His subsequent, widely publicized comments that he could no longer in good conscience recommend the vaccine caused a dramatic drop in vaccination rates across Britain. An anti-vaccination movement also sprang up in the U.S. after Wakefield appeared on "60 Minutes."

His study, however, was based on just 12 children. *Lancet* later declared that it never

should have published the report, and further studies have not been able to replicate Wakefield's results.

Although MMR vaccination rates have begun to recover, Britain has seen a surge in measles among children — more than 1,000 cases in 2008, an increase from several dozen annually a decade earlier.



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PEHSU Program Disclaimer

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DHAMP overview

- Community involvement
- Public schools
- Education & support for professionals/providers
- Interface with nursing programs
- Quality Improvement & Research



...and focus on where and how much time 'asthma experts' can spend with a patient and family

Why Asthma?

- R8 PEHSU is 10 years young
- Two ‘programs’ span that time
 - Lead and Asthma programs
- Lots of touches: patients/providers/community
- Grant spin offs
- Hear from you...

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Why Asthma?

or

a wonderful travel opportunity and a trainee in need

- Phoenix, AZ CEH workshop
- Nursing Doctor (ND) student } ...another grant

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Where to begin...

- Fledgling school-based effort } ...another grant
- Case/care management
- Questions about quality
- No champion

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Why Asthma?

- Support for providers
- Interface with schools



Denver Health SBCs

- EPR
- Teleform
 - workflow
- ‘electronic’
- QI concerns?

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DENVER HEALTH PEDIATRIC ASTHMA ENCOUNTER

Primary Language: _____

Clinic/SBHC: Insurance _____

Grade _____ Accompanied by _____

Age _____ HT _____ in/cm WT _____ lb/kg

T _____ P _____ RR _____ B/P _____ / _____

Allergies Yes ☐ No: ☐ _____

Current Medications: _____

Chief complaint: _____

Annual Influenza vaccine: Yes ☐ No ☐

Tobacco Exposure: Yes ☐ No ☐

Place label here: OR

Date: _____

Name _____

MR# _____ PT# _____

DOB _____

Home Number: (____) ____-____

Signature: _____

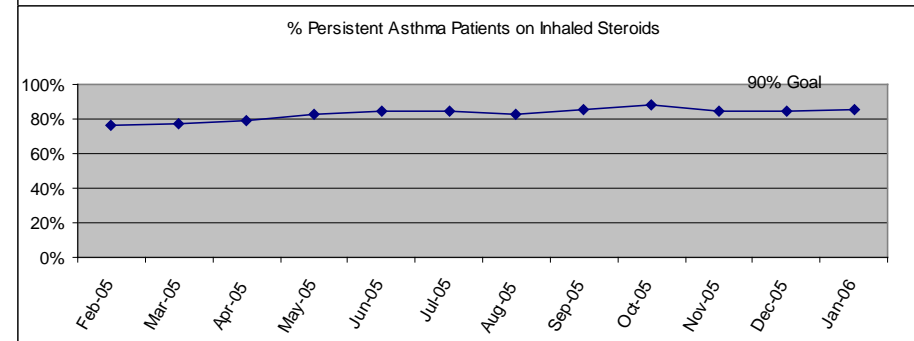
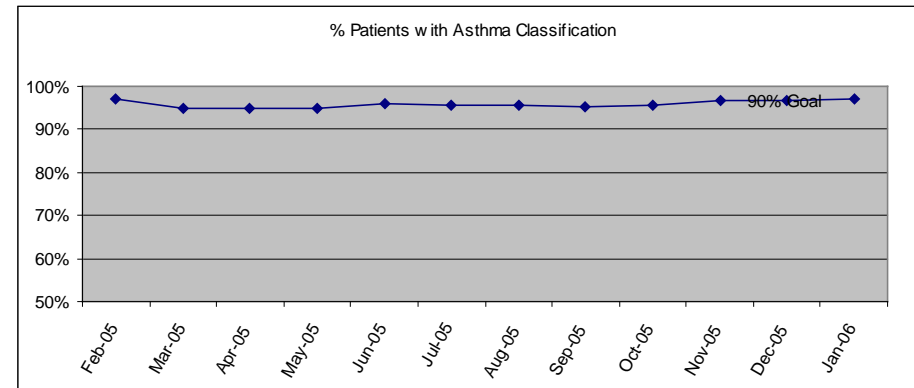
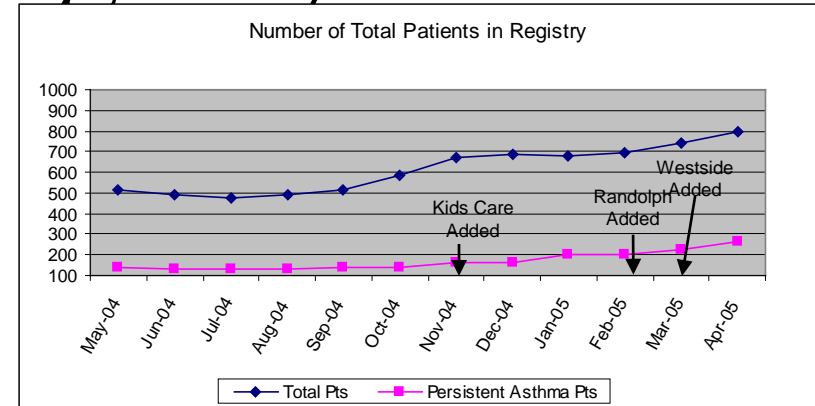
In last 3 months:				During Past 2 weeks			
Missed School Days? Yes <input type="radio"/> No <input type="radio"/> # <input type="text"/>				Daytime symptoms? Yes <input type="radio"/> No <input type="radio"/> # days <input type="text"/>			
PUCC/ED visits? Yes <input type="radio"/> No <input type="radio"/> # <input type="text"/>				Nighttime symptoms? Yes <input type="radio"/> No <input type="radio"/> # nights <input type="text"/>			
Hospitalization? Yes <input type="radio"/> No <input type="radio"/> # <input type="text"/>				Exposures/Triggers: _____			
Subj/Obj: _____				Peak Flow <input type="text"/> Personal Best <input type="text"/>			
Exam	N	A		Assessment: Asthma: Intermittent <input type="radio"/> Mild Persistent <input type="radio"/>			
General				Moderate Persistent <input type="radio"/> Severe Persistent <input type="radio"/>			
Skin							
Eyes							
Ears							
Nose							
Teeth				Plan: Albuterol <input type="radio"/> Inhaled Steroid <input type="radio"/>			
Throat							
Neck							
Lungs							
Heart							
Breasts				Self Mgmt Goal <input type="radio"/>			
Abd							
MSK				Patient & Family Education/Instructions			
Genitalia				Asthma Action Plan <input type="radio"/> Use of spacer <input type="radio"/> Smoke exposure <input type="radio"/>			
Neuro				Avoidance of Triggers <input type="radio"/> Use of Nebulizer <input type="radio"/> Use MDI <input type="radio"/>			
No <input checked="" type="checkbox"/> no review/exam				Video <input type="radio"/> Handout <input type="radio"/> Verbal <input type="radio"/> Understands <input type="radio"/> PFM <input type="radio"/>			
Counseling/Coordination > 50%				Return Visit <input type="text"/> / <input type="text"/> / <input type="text"/>			
Total Time: ____ min Couns/Coord Time ____ min							

Caregiver

Attending

Initial Registry

- Total patients
 - Classification
 - Controller Rx
- Reporting (not initial)
 - High level
- Very basic



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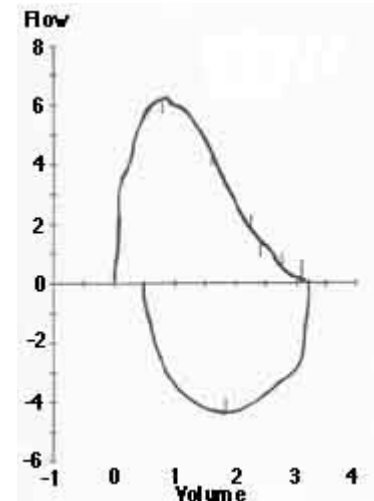
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EPR-3: Nat'l Guidelines

- Identify children appropriately
 - Control and Risk
- Look for 'persistence'
 - 'rule of 2'
 - EIB
- Move quickly to control disease
 - Rescue vs Control
 - Inhaled Corticosteroids
 - Environmental aspects
- Wean when ready
- Regular follow-up: spacer devices and spirometry



...another grant



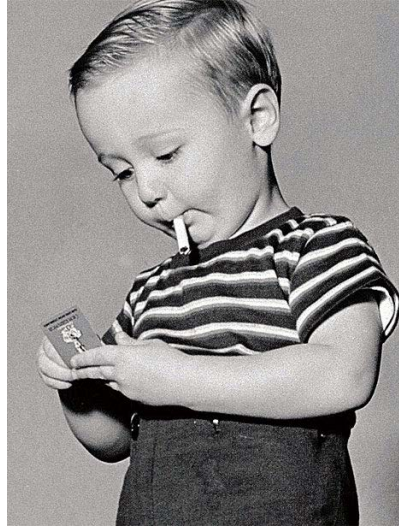
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Triggers of Asthma

- Colds
- Tobacco smoke
- Mold
- Pets/pests
- Pollution
- Weather change
- Strong odors
- Stress
- Exercise



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- Similar indicators
- Triggers added
- Spirometry added
- Interventions added
- Specific education
- Provider directed f/u

[illegible]Counts/Coord > 50% ☐ Total Time: min Counts/Coord time: min

Why Asthma?

- Bridge the hospital and community clinics } ...another grant
- Respiratory therapist
- Community } ...another grant
 - School
 - Asthma nights
 - Patient navigators
 - Home visitation pilot

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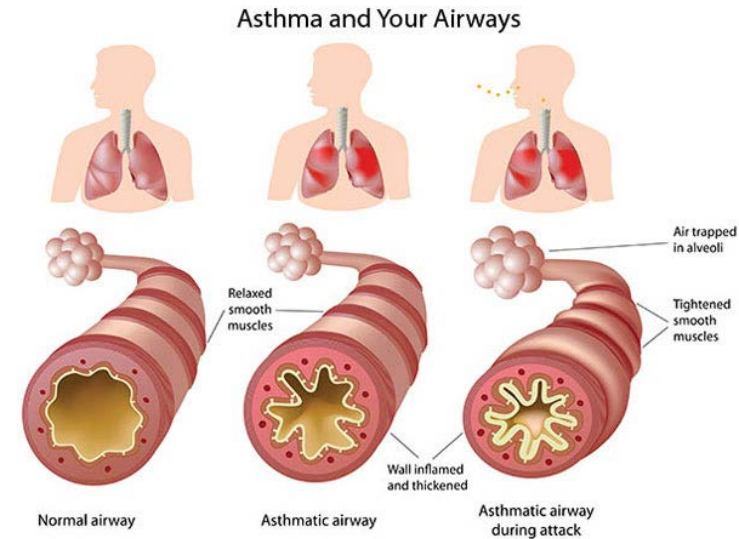


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How is Asthma treated?

- Bronchoconstriction
 - Albuterol, prednisone
- Inflammation
 - Inhaled corticosteroids
- Avoidance of triggers
- Self-management & goal setting
 - Asthma action plan
- Follow-up – at least 2 visits/yr



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What Asthma education is essential?

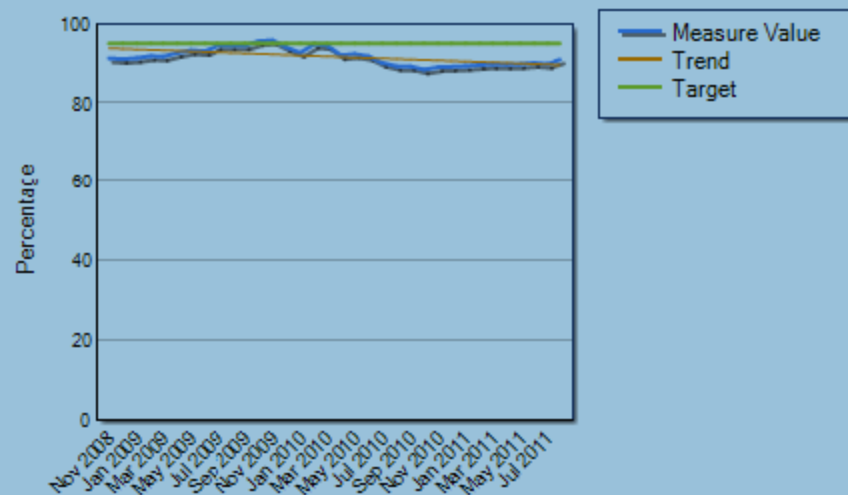
- Chronic
- Goal and expectation – normal (sleep/exercise)
- Exacerbations managed at home
- Control and Rescue
- Adherence to controller
- Regular visits

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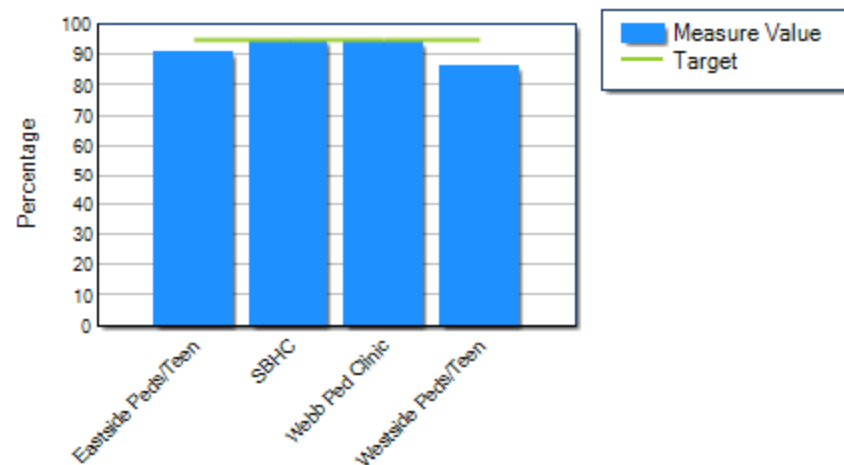
Persistent Asthma on Controller Medication



Persistent asthmatics use of asthma controller medication Definition

Percent of patients on asthma registry (pediatric patients with ≥ 1 primary care visits in past 18 mos and ≥ 1 diagnosis of asthma in past 3 yrs) with persistent asthma who received a prescription for controller medication (as documented in the asthma pathway of the pediatric electronic encounter form).

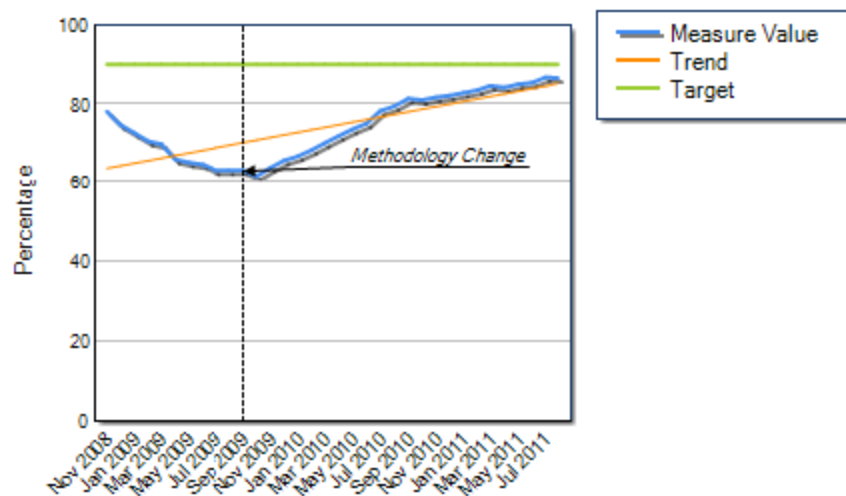
Persistent Asthma on Controller Medication (Aug 2011)



Clinic Data

Clinic	Measure Value (%)	Denominator	Target	Red Indicator
Eastside Peds/Teen	91.15	339	≥ 95.00	< 85.00
SBHC	94.63	205	≥ 95.00	< 85.00
Webb Ped Clinic	94.20	362	≥ 95.00	< 85.00
Westside Peds/Teen	86.15	426	≥ 95.00	< 85.00

Asthma Severity Assessment at Last Visit



Severity assessment at last visit Definition

Percent of patients on asthma registry (pediatric patients with ≥ 1 primary care visits in past 18 mos and ≥ 1 diagnosis of asthma in past 3 yrs) who received a severity assessment at their last primary care visit.

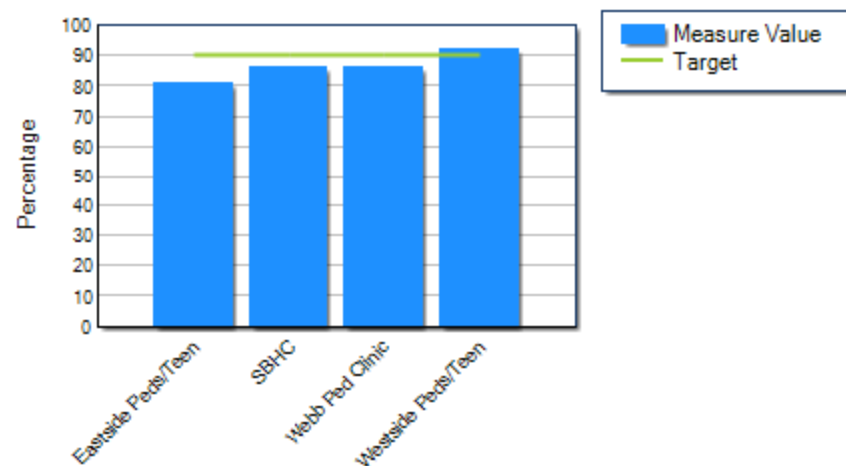
Annotations:

Jan 2007 - Start transition to LCR Pediatric Electronic Encounter and population based denominator.

Sep 2008 - Complete transition to LCR Pediatric Electronic Encounter and population based denominator.

Sep 2009 - Stopped including paper asthma form data from before LCR Pediatric Electronic Encounter in registry.

Asthma Severity Assessment at Last Visit (Aug 2011)



Clinic Data

Clinic	Measure Value (%)	Denominator	Target	Red Indicator
Eastside Peds/Teen	80.86	956	≥ 90.00	< 80.00
SBHC	86.50	763	≥ 90.00	< 80.00
Webb Ped Clinic	86.14	678	≥ 90.00	< 80.00
Westside Peds/Teen	92.26	982	≥ 90.00	< 80.00

Updates in DH system

- An antiquated care model
- Patient Navigators
 - Transition care for kids admitted to the hospital
 - Transition care for kids seen in the ED/DECC
- Active recall/outreach for kids without a visit in 6 or more months
- Home visitation pilot
- Expansion to adults with asthma

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The Asthma Control Test (ACT)

- Patient Reported Outcome (PRO)
- Inquires about symptom days and nights
- Functional score
- Objective interpretation: 19
- Validated for 4 yo and older (incl adults)
- Spanish

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THE ACT

- PRO
- PCMH




CHILDHOOD ASTHMA CONTROL TEST for children 4 to 11 years

- Step 1: Let your child respond to the first four questions (1 to 4). If your child needs help reading or understanding the question, you may help, but let your child select the response. Complete the remaining three questions (5 to 7) on your own and without letting your child's response influence your answers. There are no right or wrong answers.
- Step 2: Write the number of each answer in the score box provided.
- Step 3: Add up each score box for the total.
- Step 4: Take the test to your child's Care Provider to talk about your child's total score.


19 or less if your child's score is 19 or less, it may be a sign that your child's asthma is not controlled as well as it could be.

Have your child complete these questions.





1. How is your asthma today?

 0 Very Bad	 1 Bad	 2 Good	 3 Very good
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2. How much of a problem is your asthma when you run, exercise or play sports?

 0 It's a big problem, I can't do what I want to do.	 1 It's a problem and I don't like it.	 2 It's a little problem but it's okay.	 3 It's not a problem.
---	---	--	---

3. Do you cough because of your asthma?

 0 Yes, all of the time.	 1 Yes, most of the time.	 2 Yes, some of the time.	 3 No, none of the time.
---	--	--	---

4. Do you wake up during the night because of your asthma?

 0 Yes, all of the time.	 1 Yes, most of the time.	 2 Yes, some of the time.	 3 No, none of the time.
---	--	--	---

Please complete the following questions on your own.

5. During the last 4 weeks, how many days did your child have any daytime asthma symptoms?

Not at all 5	1-3 days 4	4-10 days 3	11-18 days 2	19-24 days 1	Everyday 0
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6. During the last 4 weeks, how many days did your child wheeze during the day because of asthma?

Not at all 5	1-3 days 4	4-10 days 3	11-18 days 2	19-24 days 1	Everyday 0
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7. During the last 4 weeks, how many days did your child wake up during the night because of asthma?

Not at all 5	1-3 days 4	4-10 days 3	11-18 days 2	19-24 days 1	Everyday 0
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SCORE

TOTAL

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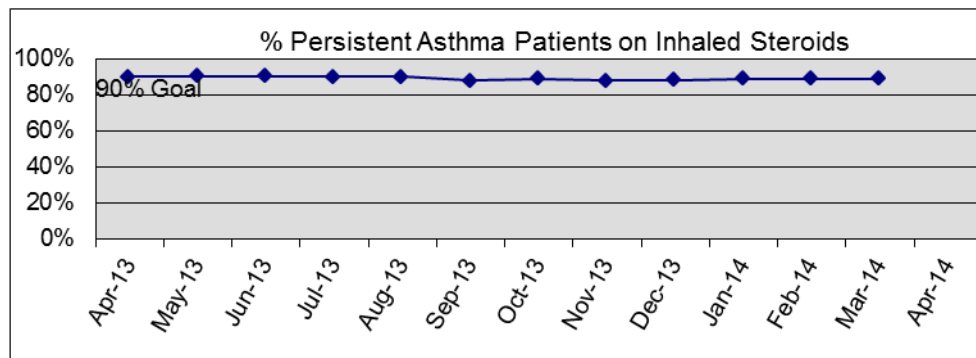
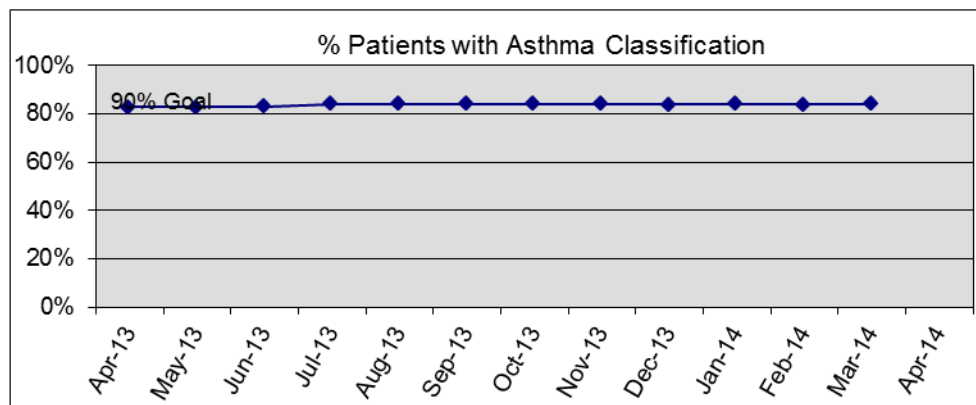
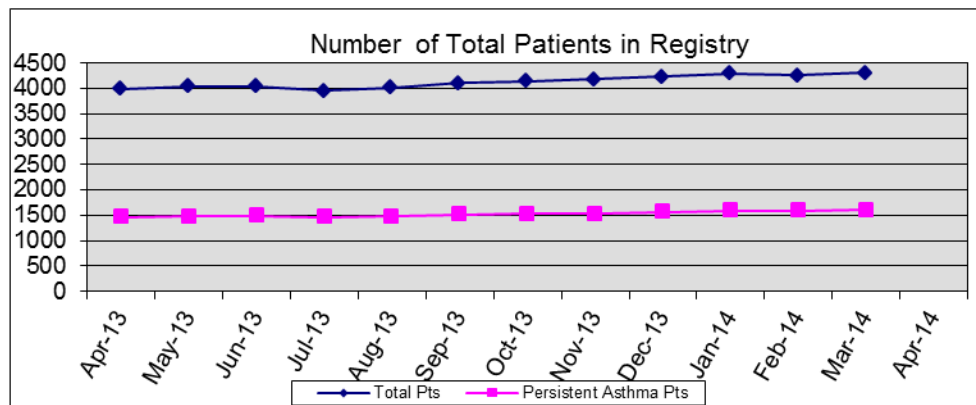
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ACT 4-11yrs ENG 2012-05-10

Discussion

- 4200 children
- 9000 adults
- HEDIS



Summary

- Asthma is very common
- Asthma is under-recognized/treated
- Provider and patient issues
- Must understand the environment/mitigate pro factors (in a 20' office visit)
- Disparities exist
- High risk kids can be identified
- Efficacious interventions exist: national guidelines
- *Integration*: clinic/PCP, specialists, schools, community
- Specific DH resources: Kid's Care Specialty Clinics
 - Asthma Working Group/AQCI at DH

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Discussion

