

GLIDES Project – Technical Expert Panel

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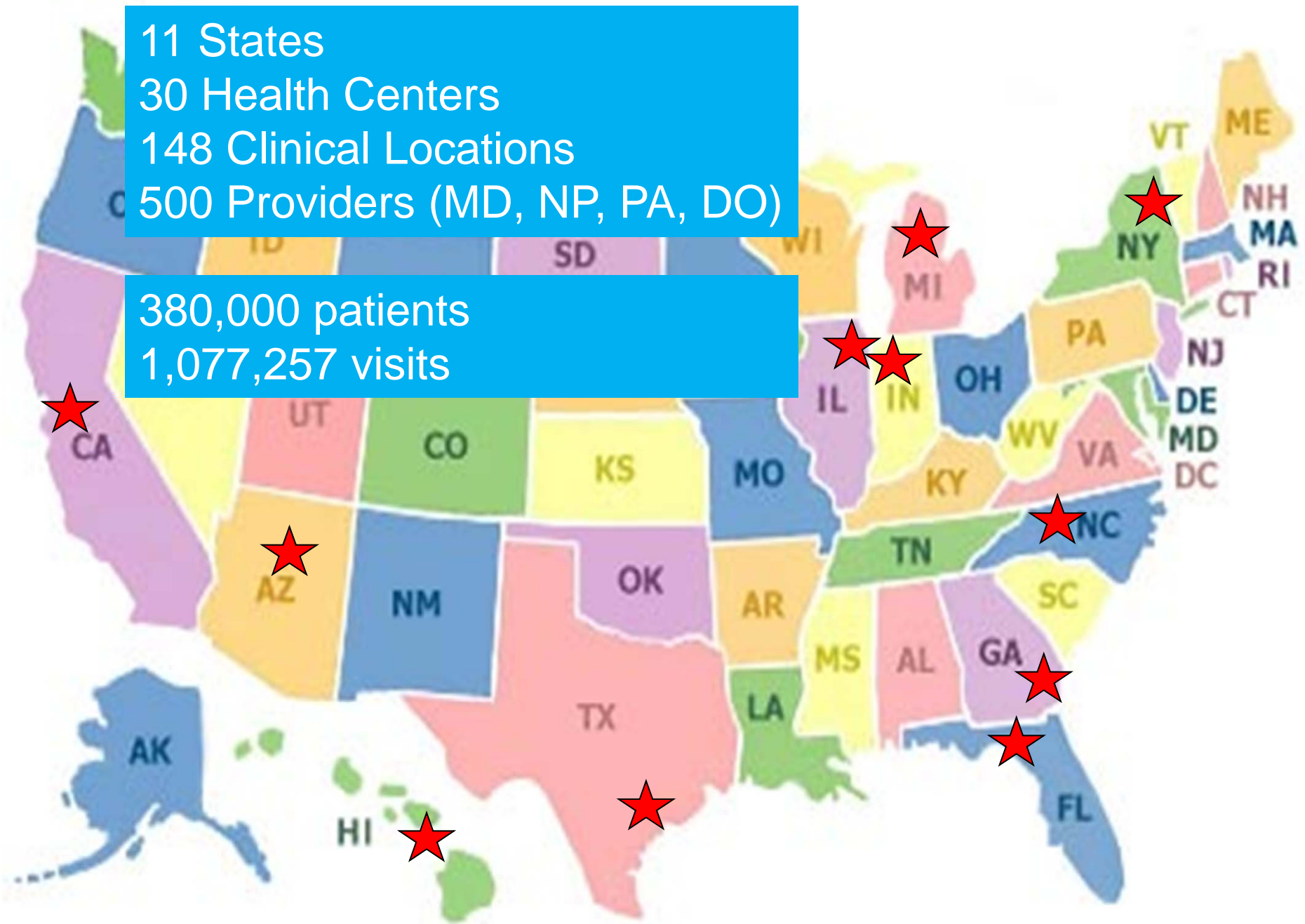


Alliance Overview

- HRSA funded **network/collaborative of Community Health Centers**
- Essentially a joint venture organizations with the desire and ability to work together on building some **common infrastructure to improve service delivery** and health status
- Dedication to **quality** and **use of data** to improve care
- Ability to access higher quality, efficiency and **economy of scale**
- Desire to ultimately **share with others**

11 States
30 Health Centers
148 Clinical Locations
500 Providers (MD, NP, PA, DO)

380,000 patients
1,077,257 visits



Alliance Programs

Electronic
Medical
Records &
HIT

Quality
Improvement
& Research

Consulting &
Technical
Assistance

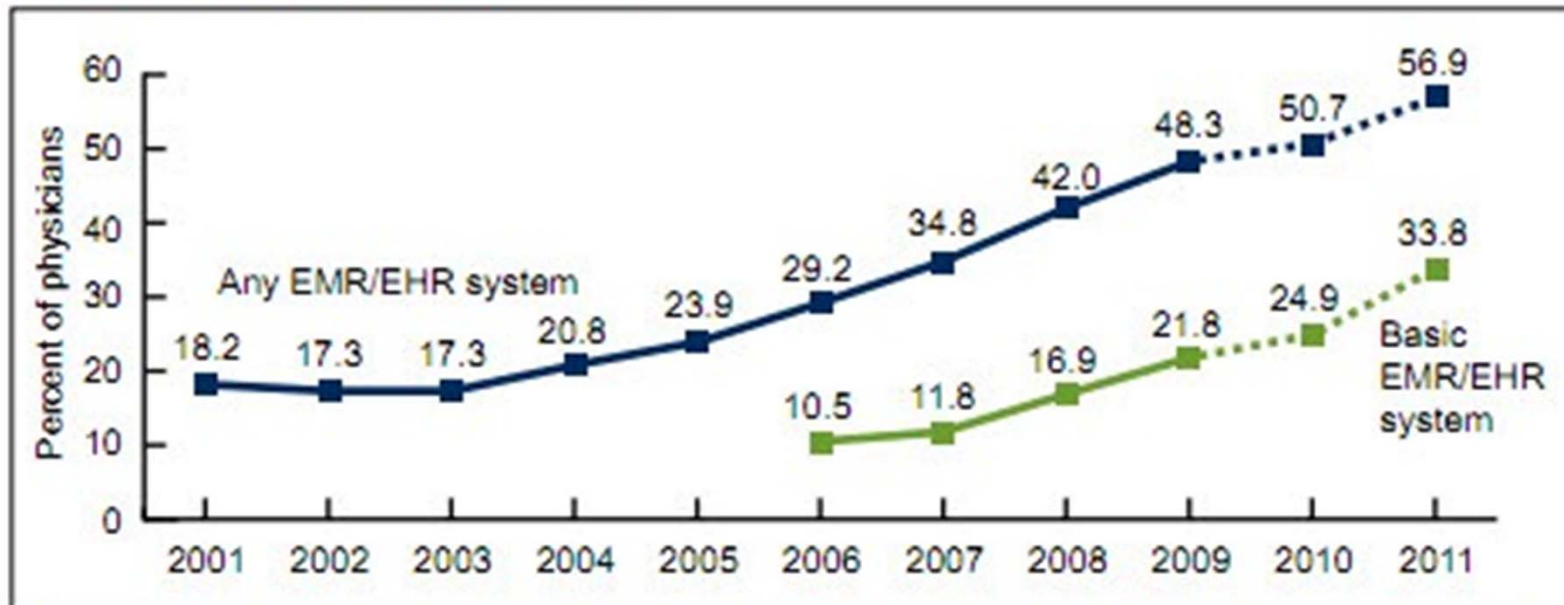
Technology
Innovations
&
Partnerships



ALLIANCE OF CHICAGO
Community Health Services, LLC

Adoption of EMR/EHR systems by office-based physicians has increased.

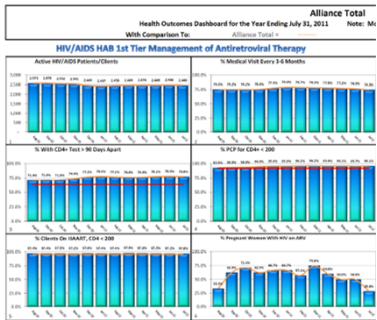
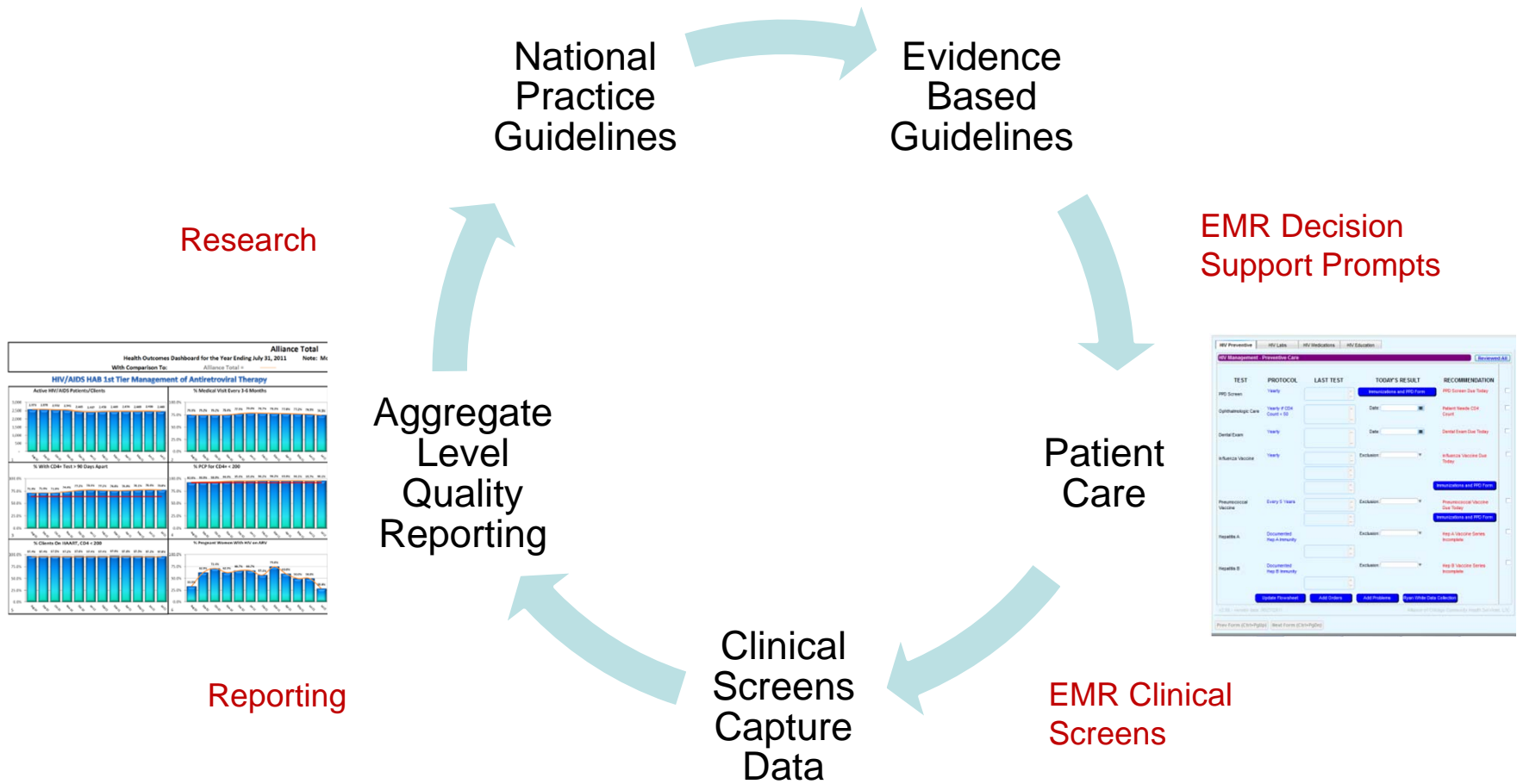
Figure 1. Percentage of office-based physicians with EMR/EHR systems: United States, 2001–2009, and preliminary 2010–2011



NOTES: EMR/EHR is electronic medical record/electronic health record. "Any EMR/EHR system" is a medical or health record system that is all or partially electronic (excluding systems solely for billing). Data for 2001–2007 are from the in-person National Ambulatory Medical Care Survey (NAMCS). Data for 2008–2009 are from combined files (in-person NAMCS and mail survey). Data for 2010–2011 are preliminary estimates (dashed lines) based on the mail survey only. Estimates through 2009 include additional physicians sampled from community health centers. Estimates of basic systems prior to 2006 could not be computed because some items were not collected in the survey. Data include nonfederal, office-based physicians and exclude radiologists, anesthesiologists, and pathologists.

SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.

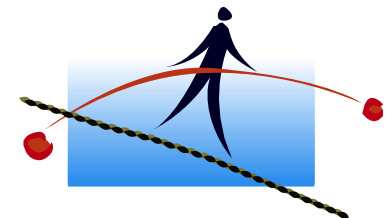
Link between EMR Adoption and Quality



Clinical Content Development

- **Benefit**

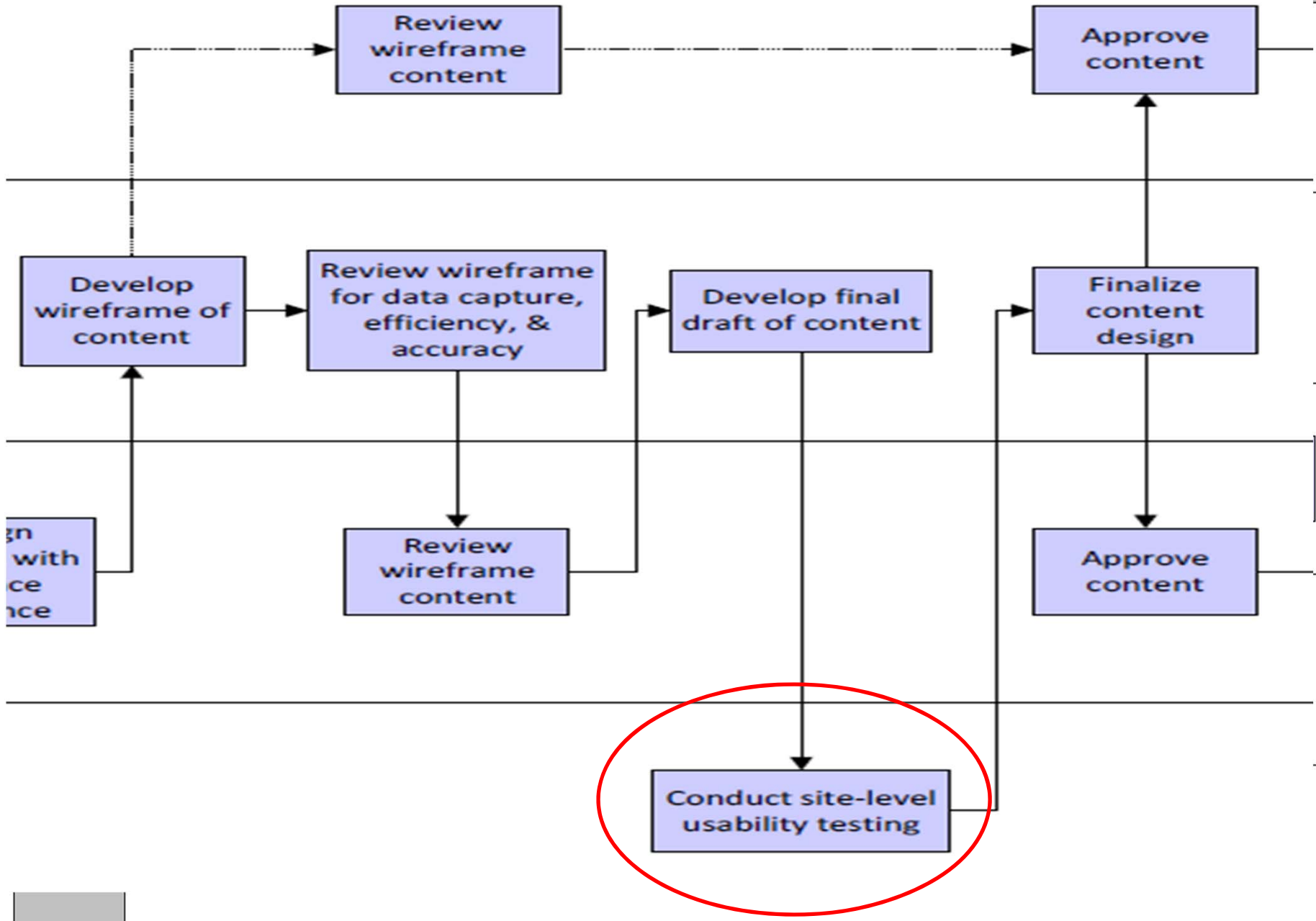
- Directly address **CHC needs** that affect us all
- **Structured, standardized data mapping** for reporting needs



- **Challenge**

- Consistently **meeting the needs** across all Alliance Health Centers
- Keeping up with the **volume** of requests for clinical content development

Alliance Clinical Content Development Process

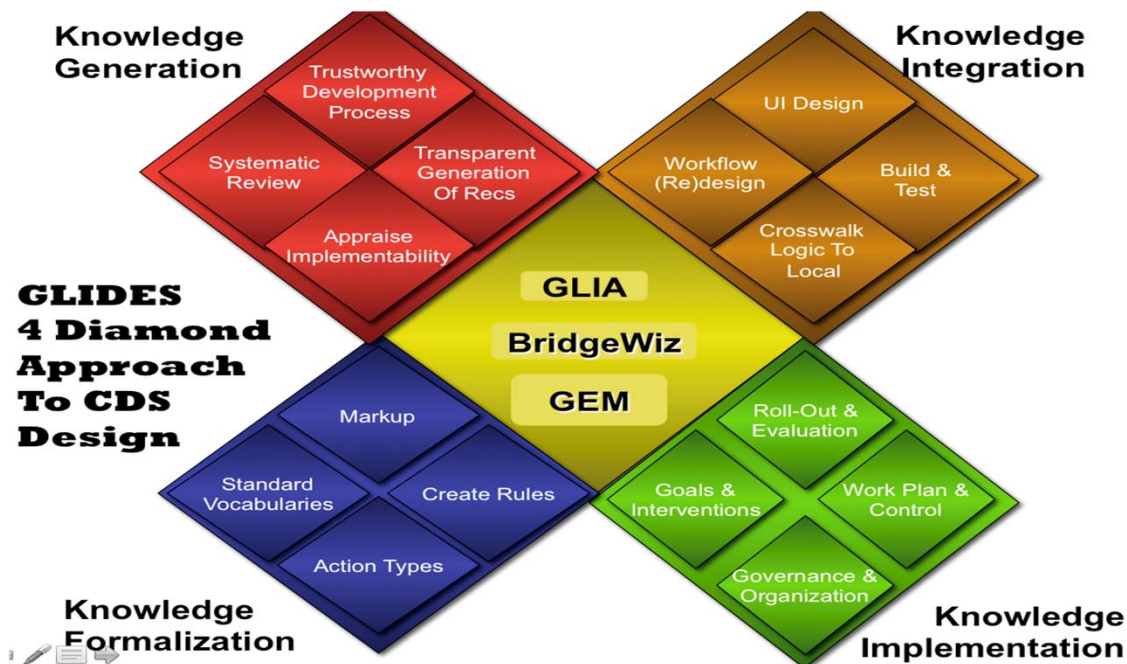


Overview of GLIDES Project



Expected Outcomes

- Update EMR based CDS for Asthma Management to reflect most current NHLBI Guidelines
- Incorporate EPA standards related to collecting asthma trigger data and developing interventions, (eg, large scale education programs)
- Demonstrate the use of GLIDES based CDS Implementation Toolkit



Phase 1: Building Revised Content

- Reviewed the Asthma CDS available from GLIDES
- Incorporated GLIDES CDS into Alliance Content
- Expanded GLIDES content to include EPA Standards for documenting and managing Asthma Triggers
- Key Deliverables:
 - Revised Asthma Content
 - Documentation of the lessons learned and key challenges associated with incorporating CDS developed “externally”

Assessment of Asthma Severity *Pediatric*

Asthma Control: Billy S. Pendergast

CLASSIFYING COMPONENTS OF ASTHMA SEVERITY AND INITIATING TREATMENT

Is patient currently on controller medication? yes no
 Has this patients severity been classified? yes no

Assessment for: Control Severity

----- Persistent -----

Impairment	----- Intermittent -----	Mild	Moderate	Severe
Cough due to asthma	<input type="radio"/> None	<input type="radio"/> <=2 days/wk	<input checked="" type="radio"/> >2 days/wk	<input type="radio"/> All Day
Wheezing	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk	<input type="radio"/> All Day
Chest tightness	<input type="radio"/> None	<input type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk	<input checked="" type="radio"/> Daily
Shortness of breath	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk	<input type="radio"/> All Day
Nighttime awakening	<input type="radio"/> None	<input checked="" type="radio"/> <=1x/month	<input type="radio"/> 1-2x/month	<input type="radio"/> All Day
Interference with normal activity Reduction in school/play/work	<input type="radio"/> None	<input type="radio"/> <-----	<input type="radio"/> Mild	<input type="radio"/> >1x/week
SABA use (not for EIB)	<input type="radio"/> None	<input type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk but r	<input type="radio"/> Several times per

Impairment Classification:

Risk

Acute/ ER visit(s) due to asthma 0 1 in last year 2 in last year 3 in last year >=4 in last year
 Hospitalizations due to asthma 0 1 in last year 2 in last year 3 in last year >=4 in last year
 Exacerbations requiring oral systemic corticosteroids 0-1/year >=2 exacerbations in last 6 mont >=4 wheezing episodes/1 year

AND Risk Factors for persistent asthma

Medication Adverse Effect

Thrush
 Palpitations
 Jitteriness
 Sleep Disturbances
 Decreased Growth
 Other

Comments

Risk Classification:
Asthma Severity Classification: Moderate Persistent

Adult Severity

Asthma Control: Scott L. Davenport

CLASSIFYING COMPONENTS OF ASTHMA SEVERITY AND INITIATING TREATMENT

Is patient currently on controller medication? yes no

Has this patients severity been classified? yes no

Assessment for: Control Severity

----- Persistent -----

Impairment	----- Intermittent -----	Mild	Moderate	Severe
<input type="checkbox"/> Cough due to asthma	<input type="radio"/> None <input type="radio"/> <=2 days/awk	<input checked="" type="radio"/> >2 days/awk	<input type="radio"/> Daily	<input type="radio"/> All Day
<input type="checkbox"/> Wheezing	<input type="radio"/> None <input type="radio"/> <=2 days/awk	<input checked="" type="radio"/> >2 days/awk	<input type="radio"/> Daily	<input type="radio"/> All Day
<input type="checkbox"/> Chest tightness	<input type="radio"/> None <input type="radio"/> <=2 days/awk	<input checked="" type="radio"/> >2 days/awk	<input type="radio"/> Daily	<input type="radio"/> All Day
<input type="checkbox"/> Shortness of breath	<input type="radio"/> None <input checked="" type="radio"/> <=2 days/awk	<input type="radio"/> >2 days/awk	<input type="radio"/> Daily	<input type="radio"/> All Day
<input type="checkbox"/> Nighttime awakening	<input type="radio"/> None <input checked="" type="radio"/> <=2x/month	<input type="radio"/> 3-4x/month	<input type="radio"/> >1x/awk	<input type="radio"/> Often 7x/awk
<input type="checkbox"/> Interference with normal activity Reduction in school/play/work	<input type="radio"/> None <input type="radio"/> <-----	<input type="radio"/> Mild	<input type="radio"/> Moderate	<input type="radio"/> Severe
<input type="checkbox"/> SABA use (not for EIB)	<input type="radio"/> None <input type="radio"/> <=2 days/awk	<input type="radio"/> >2 days/awk but r	<input type="radio"/> Daily	<input type="radio"/> Several times per
Lung Function Normal FEV1/FVC: 8-19 yr 85% 20-39 yr 80% 40-59 yr 75% 60-80 yr 70%	<input type="radio"/> FEV>80% predict <input type="radio"/> <-----	<input type="radio"/> <-----	<input type="radio"/> FEV=60-80% pre	<input type="radio"/> FEV<60% predict
	<input type="radio"/> FEV/FVC normal <input type="radio"/> <-----	<input type="radio"/> <-----	<input type="radio"/> FEV/FVC - 5%	<input type="radio"/> FEV/FVC - >5%

Impairment Classification:

<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> 3 in last year	<input type="radio"/> >=4 in last year
<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> 3 in last year	<input type="radio"/> >=4 in last year
<input type="radio"/> 0-1/year		<input type="radio"/> >=2/year		

AND Risk Factors for persistent asthma

Medication Adverse Effect

Thrush
 Palpitations
 Jitteriness
 Sleep Disturbances
 Decreased Growth
 Other

Comments

Risk Classification:
Asthma Severity Classification: Mild Persistent

Assessment of Asthma Control

Pediatric

Asthma Control: Billy S. Pendergast

CLASSIFYING COMPONENTS OF ASTHMA CONTROL

Is patient currently on controller medication? yes no

Assessment for: Control Severity

Impairment	Well Controlled	Not Well Controlled	Poorly Controlled
Cough due to asthma	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Wheezing	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Chest tightness	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Shortness of breath	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Nighttime awakening	<input type="radio"/> None	<input type="radio"/> ≤1x/month	<input type="radio"/> >1x/wk
Interference with normal activity Reduction in school/play/work	<input type="radio"/> None	<input type="radio"/> <-----	<input type="radio"/> Some Limitation
SABA use (not for EIB)	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input checked="" type="radio"/> >2 days/wk but not dai <input checked="" type="radio"/> Several times per day

Impairment Classification: **Severe**

Risk	Well Controlled	Not Well Controlled	Poorly Controlled
Acute/ ER visit(s) due to asthma	<input type="radio"/> 0	<input checked="" type="radio"/> 1 in last year	<input type="radio"/> 2 in last year
Hospitalizations due to asthma	<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input checked="" type="radio"/> 2 in last year
Exacerbations requiring oral steroids	<input type="radio"/> 0-1/year	<input checked="" type="radio"/> 2-3/year	<input type="radio"/> >3/year

Risk Classification: **Moderate**

Asthma Control Classification: **Poorly Controlled**

Medication Adverse Effect

- Thrush
- Palpitations
- Jitteriness
- Sleep Disturbances
- Decreased Growth
- Other

Comments

Adult Control

Asthma Control: Scott L. Davenport

CLASSIFYING COMPONENTS OF ASTHMA CONTROL

Is patient currently on controller medication? yes no
 Has this patients severity been classified? yes no
 Assessment for: Control Severity

Impairment	Well Controlled	Not Well Controlled	Poorly Controlled
Cough due to asthma	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk
Wheezing	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk
Chest tightness	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk
Shortness of breath	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk
Nighttime awakening	<input checked="" type="radio"/> None	<input type="radio"/> <=2x/month	<input type="radio"/> 1-3x/wk
Interference with normal activity Reduction in school/play/work	<input checked="" type="radio"/> None	<input type="radio"/> <-----	<input type="radio"/> Some Limitation
SABA use (not for EIB)	<input type="radio"/> None	<input checked="" type="radio"/> <=2 days/wk	<input type="radio"/> >2 days/wk but not dai
FEV1 or peak flow	<input type="radio"/> ----->	<input type="radio"/> >80% predicted	<input type="radio"/> 60 - 80% predicted
ACT Score	<input type="radio"/> ----->	<input type="radio"/> >= 20	<input type="radio"/> 16 - 19
			<input type="radio"/> >=4x/wk
			<input type="radio"/> Extremely Limited
			<input type="radio"/> Several times per day
			<input type="radio"/> <60% predicted
			<input type="radio"/> <= 15

Impairment Classification: Minimal

Risk	Well Controlled	Not Well Controlled	Poorly Controlled
Acute/ ER visit(s) due to asthma	<input type="radio"/> 0	<input checked="" type="radio"/> 1 in last year	<input type="radio"/> 2 in last year
Hospitalizations due to asthma	<input type="radio"/> 0	<input checked="" type="radio"/> 1 in last year	<input type="radio"/> 2 in last year
Exacerbations requiring oral steroids	<input checked="" type="radio"/> 0-1/year		<input type="radio"/> >=2/year
			<input type="radio"/> >=3 in last year
			<input type="radio"/> >=3 in last year

Risk Classification: Low

Asthma Control Classification: Well Controlled

Medication Adverse Effect

Thrush
 Palpitations
 Jitteriness
 Sleep Disturbances
 Decreased Growth
 Other

Comments

Assessment of Triggers

Asthma Management - TEST: Billy S. Pendergast

Summary Severity Control Medications **Triggers** AActionPlan- 1 AAction Plan- 2 Pt Question.

Triggers:

Current Exposure?

Allergies:

Dust Mtes:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Pollen/Cut Grass/Flowers:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Animals:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Mice/Rats/Cockroaches:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Indoor Mold:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>

Irritants:

Tobacco Smoke:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Outdoor Pollution:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Wood Smoke:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Chalk Dust:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Cleaning Products:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>

Current Allergy List: **Update Allergies**

Comorbidities -

Please review patients problem list for diagnosis that may impact acthma including GERD, Rhinitis, and Depression

Asthma Assessment

Asthma Assessment: Billy S. Pendergast

Previous Control Classification		Previous Severity Classification on 09/09/2011	
Control Class:		Severity Class:	Moderate Persistent
Impairment:	Moderate		
Risk:	Moderate		
Previous Step:	Step 3		

Provider Assessment - Today

Current level of control is: Well Controlled Not Well Controlled Very Poorly Controlled

Inhaler Technique: Correct Incorrect N/A

Adherence: N/A Good Fair Poor

Environmental Control: Adequate Inadequate N/A

Coexisting Conditions: yes no

Psychosocial Factors: yes no

Alternative Dx ("e.g. vocal cord dysfunction"): yes no

Decision Support - Today

Control Class: **Not Well Controlled** **Recommend step up in therapy**

Impairment: **Moderate**

Risk: **Moderate** **--- Regular follow up every 2 - 6 weeks ---**

Re-Classify Patient Asthma Severity

Intermittent Asthma Step 1 Step 2 Step 3 Step 4 Step 5 Step 6

Persistent Asthma: Daily Medication

Provider Assessment / Step Comments:

Preferred:	Preferred: Low-dose ICS Alternative: Cromolyn or Montelukast	Preferred: Medium-dose ICS	Preferred: Medium-dose ICS + either LABA or Montelukast	Preferred: High-dose ICS + either LABA or Montelukast	Preferred: High-dose ICS + either LABA or Montelukast Oral systemic corticosteroids
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Asthma Medication Management

ASTHMA MEDICATION: Billy S. Pendergast

Problems	Medications	Allergies
OTITIS MEDIA (ICD-382.9)		
<input type="button" value="Update Problems"/>	<input type="button" value="Update Meds"/>	<input type="button" value="Update Allergies"/>

Selected Treatment Step : 3

Quick-Relief
Short acting B-2 agonist

PROVENTIL 90 MCG/ACT AERS

Long Term Control
Preferred

1. Medium-dose inhaled steroid

- FLOVENT 110 1 puff BID
- PULMICORT 0.5 MG/2ML SUSP
- QVAR 40 2 puffs BID
- QVAR 80 2 puffs BID

Asthma Action Plan

Asthma Management - TEST: Billy S. Pendergast

Summary Severity Control Medications Triggers AActionPlan- 1 AAction Plan- 2 Pt Question.

Asthma Management - Asthma Action Plan Recommendations

Green Zone [Definition](#)

Peak Flow Range **Instructions** Reviewed

More than:

No previous result

Instructions

Take controller medications as prescribed.

Before exercise, take puffs of 5-60 minutes before exercise.

Avoid things that make your asthma worse.

Avoid tobacco smoke.

Ask people to smoke outside.

Other:

Instructions:

Yellow Zone [Definition](#)

Peak Flow Range **Instructions**

From:

To:

Instructions

First... Continue taking controller medications as prescribed.

Add quick-relief medication: ALBUTEROL SULFATE (2.5 MG/3ML) 0.083% NEBU 2.5 mg .5cc with 3cc NS nebulized every 4 hours

If you are taking your quick-relief medication more than 2 to 3 times/week, then call your provider.

If your symptoms and/or peak flows do not improve after 1 hour of treatment, then...

Take quick relief medication:

Take quick relief medication:

Call your primary care provider if no improvement in days.

Other:

Instructions:

Red Zone [Definition](#)

Peak Flow Range **Instructions**

Less than:

Instructions

Take this medication: ALBUTEROL SULFATE (2.5 MG/3ML) 0.083% NEBU 2.5 mg .5cc with 3cc NS nebulized every 4 hours.

Call your provider NOW.

Go to the nearest emergency room.

Call 911 if person doesn't respond to you, skin is sucked in around the neck and ribs, and/or if lips or fingernails are grey or blue.

Make an appointment with your primary care provider within two days of an emergency room visit or hospitalization.

Other:

Instructions:

Phase 2: Evaluating Results

- Conduct Usability Testing
- Incorporate SME Feedback into revised CDS
- Train Key Staff on New Asthma CDS
- Support implementation of New Asthma CDS
- Evaluate Clinician Adoption and Satisfaction with Revised CDS

Key Deliverables

- Documentation of Usability Testing Results
- Synthesize results of CDS Satisfaction survey and Adoption Measures

Thank You

Email:

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