Technical Assistance for Health Information Technology and Health Information Exchange in Medicaid and SCHIP

Welcome to the AHRQ Medicaid-SCHIP TA Webinar
Evaluating Health IT Projects: A State Perspective

Thursday, July 10, 2008 2:00 - 3:30 p.m. EST

Presented by:

Kim B. Davis-Allen – Director, TFQ/Medical Services Division

Gary Oderda – PharmD, MPH; Jonathan Nebeker, MS, MD; Wu Xu, PhD

Theresa I. Shireman – PhD, Kansas University Medical Center Department of Preventive Medicine & Public Health

* Please note all participants were placed on mute as they joined the session.

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Overview

- **Welcome** – Jessica Kahn, MPH, Medicaid Transformation Grants Project Officer, Centers for Medicare and Medicaid Services (CMS)
- **Before We Begin** – Jessica Kahn, MPH
- **Introductions** – Jessica Kahn, MPH
- **Presentations**
  - *Together for Quality Alabama's Transformation Grant*
    - Presented by Kim B. Davis-Allen – Director, TFQ/Medical Services Division
  - *Utah Medicaid Electronic Pharmacotherapy Risk Management*
    - Presented by Gary Oderda – PharmD, MPH; Jonathan Nebeker, MS, MD; Wu Xu, PhD
  - *Using Predictive Modeling to Improve Preventative Health Care in the Disabled Medicaid Population*
    - Presented by Theresa I. Shireman – PhD, Kansas University Medical Center Department of Preventive Medicine & Public Health
- **Question and Answer** – Jessica Kahn, MPH
- **Closing Remarks** – Jessica Kahn, MPH

Before we begin…

- Please note all participants were muted as they joined the Webinar.
- If you wish to be unmuted, choose the “raise hand” option to notify the host.
- If you have a question during the presentation, please send your question to ***all panelists*** through the chat. At the end of the presentation, there will be a question and answer period.
- Please e-mail Nicole Buchholz at nbuchholz@rti.org if you would like a copy of today’s presentation slides.
- We are currently in the process of posting all of the TA Webinar presentation slides to the project website.

Listserv Registration

- Please register for the listserv to receive announcements about program updates and upcoming TA Webinars.
- To register go to http://healthit.ahrq.gov/Medicaid-SCHIP .
- Click on “Medicaid-SCHIP Fast Facts” on the left side of the screen.
- There are two ways to register for the listserv:
  - 1. Click the link Click here to subscribe to the listserv that will open a prefilled e-mail message, enter your name after the text in the body of the message, and send.
  - 2. Send an e-mail message to: listserv@list.ahrq.gov.
    On the subject line, type: **Subscribe**.
    In the body of the message type: **sub Medicaid-SCHIP-HIT** and **your full name**. For example: sub Medicaid-SCHIP-HIT John Doe.
    You will receive a message asking you to confirm your intent to sign up.

Technical Assistance for Health Information Technology and Health Information Exchange in Medicaid and SCHIP

Together for Quality

Alabama's Transformation Grant

Kim B. Davis-Allen

Director, TFQ/Medical Services Division

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Need to Know . . .

Alabama

- 67 counties
- Largely rural
- 4 major metro areas
- 4.6m total population
- 1.3m children
- 21% population is Medicaid
- 40% of all children
- 48% of all births
- $3.4m in direct payments

Patient 1st

- Traditional PCCM model
- Basically since 1997
- Medical home concept
- About 420,000 enrollees
- About 1,100 providers
- Tiered case management fee
- Direct services are FFS
- Sharing of the savings

Framework . . .

Together for Quality

- $7.6M transformation grant
- Three components
  - Agency interoperability
  - Electronic health record
  - Chronic care management
- Stakeholder council
  - Five workgroups
- Patient 1st is the foundation
- “It’s a Pilot”

Goals and Approach

- Patient-centered, cost effective
- Meld disparate systems
- Built on existing resources
- Collaboration—“even if it kills you!”
- Transparent
- Integrated into daily operations

The Products . . .

Care Management

- Comprehensive chronic care management program
- Asthma and diabetes are targeted diseases
- Protocols designed to affect all disease facets
- Accomplished through Alabama Dept. of Public Health care coordinators (aka, care managers)
- Care managers provide patient training, education, and reinforcement

Measures

Asthma

- Asthma controller use
- Influenza immunization
- Emergency department visits
- Hospitalizations

Diabetes

- Influenza immunization
- Annual HbA1C
- Annual lipid profile
- Annual eye exam
- Annual urine protein screening

✓ Developed by the Clinical Workgroup

✓Target goals

Patients

- Patient 1st recipients
- Five, four, etc. missed opportunities
- Stratified by high, medium, and low
- Patient 1st PMP agrees to participate
- Strive to enroll 120% of target
- Minimum six months enrollment

@tool?

- Electronic health care record
  - Medicaid claims
  - BCBS claims
  - Lab values
  - Immunization history
- Overlaid with clinical rules and alerts
  - Asthma and diabetes are targeted diseases
  - Immunization alerts
  - Drug alerts
  - Allergies

The Inner Workings

- Vendor
- Web-based
- MPI logic
  - Match vs new
- Push/pull capability
  - HL7 request
  - CCD response
- Input from Clinical Workgroup
- Summary and detail information
- A product for providers to identify with
- Protected data
  (e.g., mental health diagnoses)
- Actionable alerts
  - Clinical
  - Workflow

HHS Interoperability

- Systems talking to systems
- Dept. of Senior Services
- Building the platform for other agencies
- Sharing data on common patients
- Workflow
- Paperless system

How Do We Know If It Works???

For TFQ . . .

- Contracted for experience
- Logic model
- All components
  - In and out
- Involves all parties
- Beginning to end involvement
- End-user input

Evaluation Components

- Outputs
  - Care management
  - Qtool
  - HHS interoperability
- For each
  - Capabilities
  - Difficulties
    - Implementation issues, education, acceptance
  - Use vs use
- Long-term vs short-term

Specific Measures: Short -term

- Are HHS staff using the information?
  - Has it changed the process?
  - Do we still have paper?
- Are providers using Qtool?
  - Is it part of daily operations?
  - Define use
  - Who uses it?
- Is there a change in behavior of those with chronic conditions?
  - Patient perception
  - Quality of life measures
- What makes the difference?
  - Care management?
  - Qtool?
  - Both?

Specific Measures: Long-term

- Overall quality of care
  - Quantifiable
  - Measures
- Interoperability expansion
  - Has it made a difference
  - Does it appeal to other agencies?
- Stakeholders' perceptions
  - Is it what they thought? Envisioned?

In Summary . . .

- Tracking the transformation of our transformation
- Changing the way established systems operate
  - Does behavior change?
  - Does quality improve?
  - Is there buy-in to the change?

Do You Want More Information?

www.medicaid.alabama.gov

kim.davis-allen@medicaid.alabama.gov

Together for Quality

Tool Kit for Transformation

Technical Assistance for Health Information Technology and Health Information Exchange in Medicaid and SCHIP

Utah Medicaid Electronic Pharmacotherapy Risk Management

Gary Oderda, PharmD, MPH
Jonathan Nebeker, MS, MD
Wu Xu, PhD

Funded by the Agency for Healthcare Research and Quality

Key Participants

- Utah Department of Health
- University of Utah
  - VA Health Services Research & Development and School of Medicine
  - College of Pharmacy

*e*PRM Overview

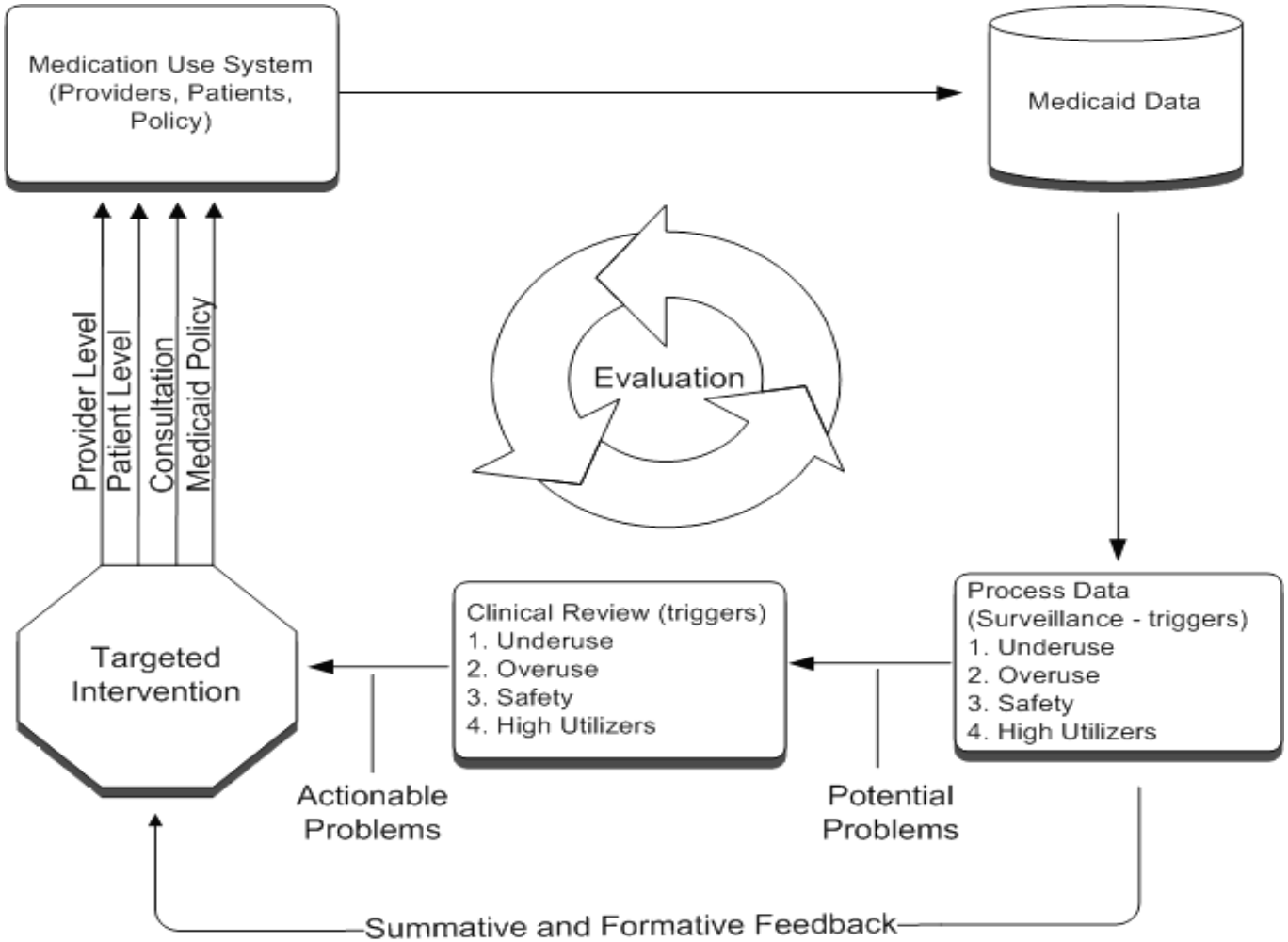
- Goals
- Reduce harm
  - Adverse events (ADEs)
- Improve quality
  - Target guideline outliers
- Reduce costs
  - Short-term utilization

Project Steps

- Select high-burden (cost+harm) conditions
- Identify patients with high *future* risk
- Identify providers with risky treatment patterns
- Intervene at provider and patient levels

The ePRM System Overview

Proposed in the Grant Application, June 2006



Goal of Performance Measurement for ePRM

- Select performance measures that represent medication-related quality and safety concerns that occur frequently, have a large financial or humanistic impact, and are actionable.

Criteria for Selecting Measures

1. Intended use of measures should be clear and compelling and meet a state priority.
2. Implementation of measures must be feasible with Medicaid pharmacy and medical claims data.
3. Must be considerable variation in the quality of care provided.
4. Information produced must be usable by health care professionals and other stakeholders to provide evidence a problem exists and to motivate performance improvement.
5. Scientific acceptability: reliability and validity.

Alert Categories

- Overuse
  - Dose thresholds
  - Interactions
- Underuse
  - Dose thresholds
  - Noncompliance
  - Escalation plus noncompliance
- Fraud

Examples of Areas Addressed

- Pediatric asthma
- Antipsychotics (pediatric)
- Antipsychotics (adult)
- Opioids
- Fraud

Interventions

- Clinics are randomly assigned to one of four treatment groups:
  1. Control
  2. Basic
  3. Medication therapy management services *plus* basic
  4. Process engineering *plus* basic

Treatment Groups

1. Control
   - No intervention
2. Basic only
   - Clinical pharmacist review
     - False positives
     - Recommendations to optimize therapy
     - Written materials sent to providers

EbPR (ASTHMA)

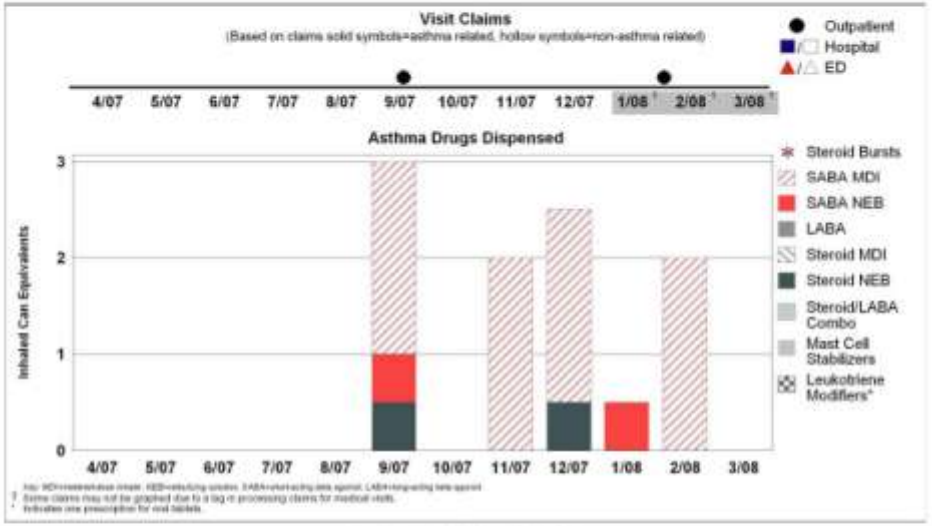
Evidence-based Pharmacotherapy Review

Utah Department of Health and University of Utah Health Sciences
421 Wakara Way, Suite 208, Salt Lake City, Utah 84108
Telephone 801.585.1065 / Fax 801.581.7442

Patient ID: **Last Name:** **First Name:**

Prescriber Name: **Sex:** **DOB:** **Age:**

PATIENT CLAIMS HISTORY



PHARMACIST RECOMMENDATIONS

Assessment	Recommendation	Rationale
Based on the quantity of albuterol that has been filled, your patient may have persistent asthma that is not well-controlled. It appears that your patient has a long-term inhaled steroid prescription that has not been consistently filled and used.	Consider reviewing the importance of adherence to the inhaled steroid regimen with her parent or guardian.	Daily use of an inhaled steroid is the preferred strategy for control of asthma symptoms in patients with all severities of persistent asthma. [1]
The records indicate your patient has been filling prescriptions for two forms of albuterol each month. He has been receiving albuterol nebulizer solution and a metered-dose inhaler.	Consider streamlining his regimen to include just one form of albuterol.	Nebulized therapy does not provide superior drug delivery compared to inhalers (when used with a spacer device). [1]
Your patient has a diagnosis of allergen-sensitive asthma.	Consider reviewing strategies to identify and avoid allergens with your patient and his guardian.	Allergen sensitivity is an important contributor to asthma-related morbidity, particularly in children. [1]

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Evidence-based Pharmacotherapy Review

Utah Department of Health and University of Utah Health Sciences
421 Wakara Way, Suite 208, Salt Lake City, Utah 84108
Telephone 801.585.1065 / Fax 801.581.7442

Patient ID: Last Name: First Name:

Prescriber Name: Sex: DOB: Age:

COMPARISON OF PATIENT UTILIZATION AND NATIONAL GOALS

Average Number of Doses per Day *

Therapy	Past 12 Months	Past 3 Months	NHLBI Guideline Notes
Controllers			
Preferred			
Inhaled Steroids	0.16	0.00	≥1-2 doses per day indicates ideal use (approximately 1 inhaler per month). [1]
Adjunct / Alternative			
LABA	0.00	0.00	Add on only after inhaled steroid if more control is needed. [1]
Mast Cell Stabilizers	0.00	0.00	Add on only after inhaled steroid if more control is needed. [1]
Leukotriene Modifiers	0.00	0.00	Add on only after inhaled steroid if more control is needed. [1]
Relievers			
SABA	2.47	2.78	≥1.1 doses per day indicates asthma that is not well controlled (approximately 1 inhaler per 2.7 months). [1]
Indicators of Asthma Control			
Medication Ratio [Controller / (Controller+SABA)]	0.10	0.00	≤0.5 doubles the risk of hospitalization. [1-3]
Number of Steroid Bursts	0.00	0.00	>1 per year indicates asthma that is not well controlled. [1]
Number of ED Visits	0.00	0.00	≥1 per year indicates asthma that is not well controlled. [1]

Key: LABA - long acting beta agonist, SABA - short acting beta agonist, ED - emergency department

* Average number of doses per day indicates the average number of doses administered each day for each medication averaged over the past 12 or 3 months. For metered dose inhalers, two actuations is equal to one dose. For more detailed information, please visit www.health.utah.gov/medicaid/pharmacy/ebpr.

References

1. National Asthma Education and Prevention Program (National Heart Lung and Blood Institute). Third Expert Panel on the Management of Asthma. Expert Panel report 3: Guidelines for the diagnosis and management of asthma. [Bethesda, Md.]: National Institutes of Health, National Heart, Lung, and Blood Institute; 2007.
2. Schatz M, Zeiger RS, Vollmer WM, et al. The controller-to-total asthma medication ratio is associated with patient-centered as well as utilization outcomes. Chest. Jul 2006;130(1):43-50.
3. Schatz M, Nakahiro R, Crawford W, Mendoza G, Mosen D, Stibolt TB. Asthma quality-of-care markers using administrative data. Chest. Oct 2005;128(4):1968-1973.

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Treatment Groups

3. Medication Therapy Management (MTMS) with basic
   - Telephone intervention
   - Selected patients referred to pharmacist visit
4. Process engineering with basic
   - Three visits to medical practice
   - Physician/pharmacist team

Evaluation – University of Utah

- Primary evaluation
  - Cluster RCT
  - Evaluate process and outcome changes
    - Process: improved asthma controller to total asthma meds, medication adherence and per-sistence, reduction in antipsychotic polypharmacy, and hazardous opioid treatment patterns
    - Outcome: reduction in asthma-related emergency department (ED) visits, mental health institutionalization, opioid-related ED visits, etc.

Evaluation – University of Utah

- Secondary evaluation
  - Provider satisfaction, usability of feedback information, and perceived value of other interventions, recommendations for improvement of feedback materials
  - Patient satisfaction with MTM services
  - Drug-related problems identified and resolved with MTMS
  - Feedback from process engineering

Evaluation – Utah Dept. of Health

- Efficiency evaluation
  - Use episode of care analysis to evaluate impact on cost to Medicaid
  - Research license on the Ingenix/ Symmetry software
    - ETG, Episode Treatment Groups
    - ERG, Episode Risk Groups
    - PRG, Prescription Risk Groups

What is Episode of Care?

Clinical Care

+

Medication

+

Hospital Care

+

+

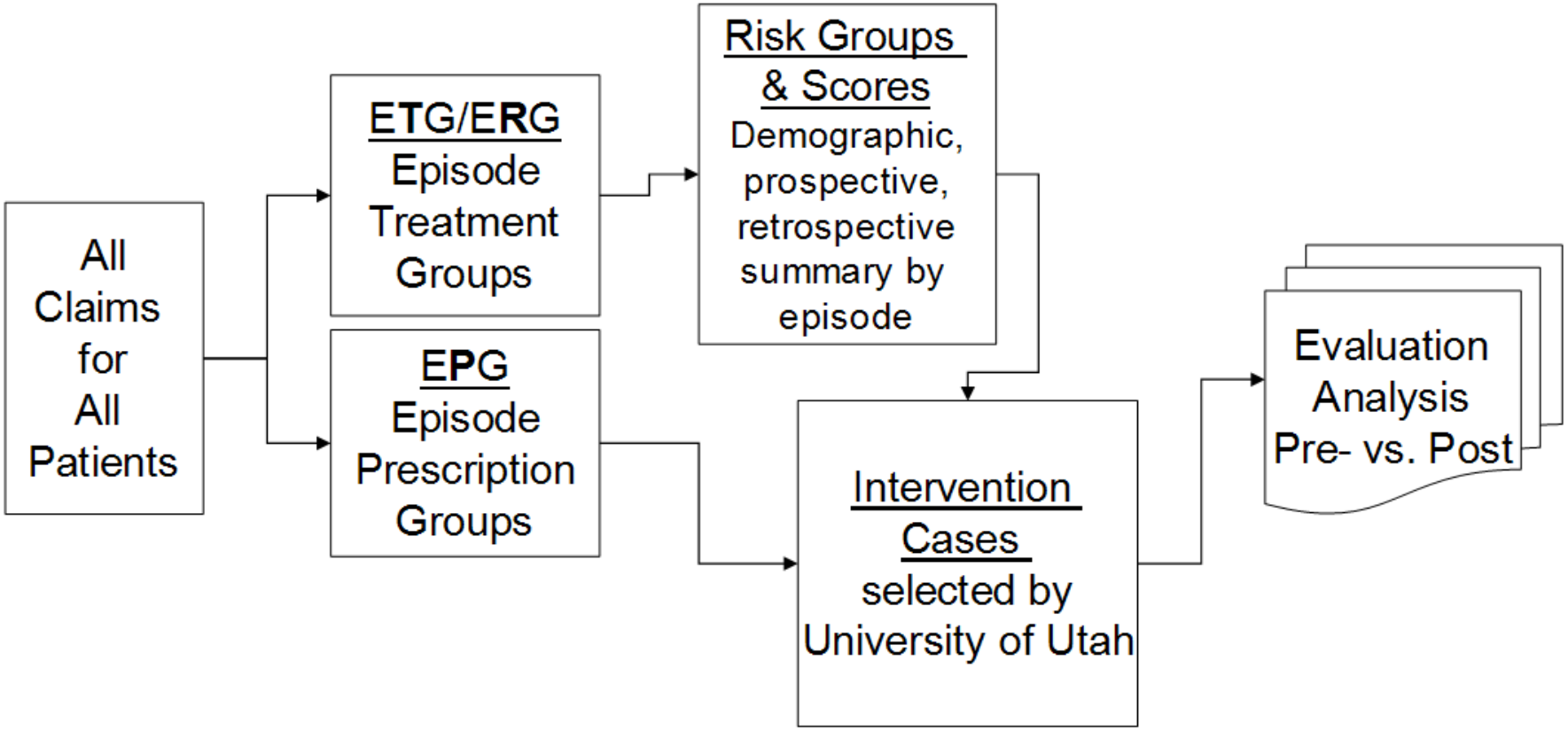
Emergency Care

Jan. July Dec.

Asthma Episode of Care

- Defined asthma into four categories for further stratified analysis:
  - Asthma w/o complication, w/o comorbidities
  - Asthma w/ complications, w/o comorbidities
  - Asthma w/o complication, w/ comorbidities
  - Asthma w/ complications, w/ comorbidities
- Calculated severity of illness by above categories by episode in addition to individual severity indexes.

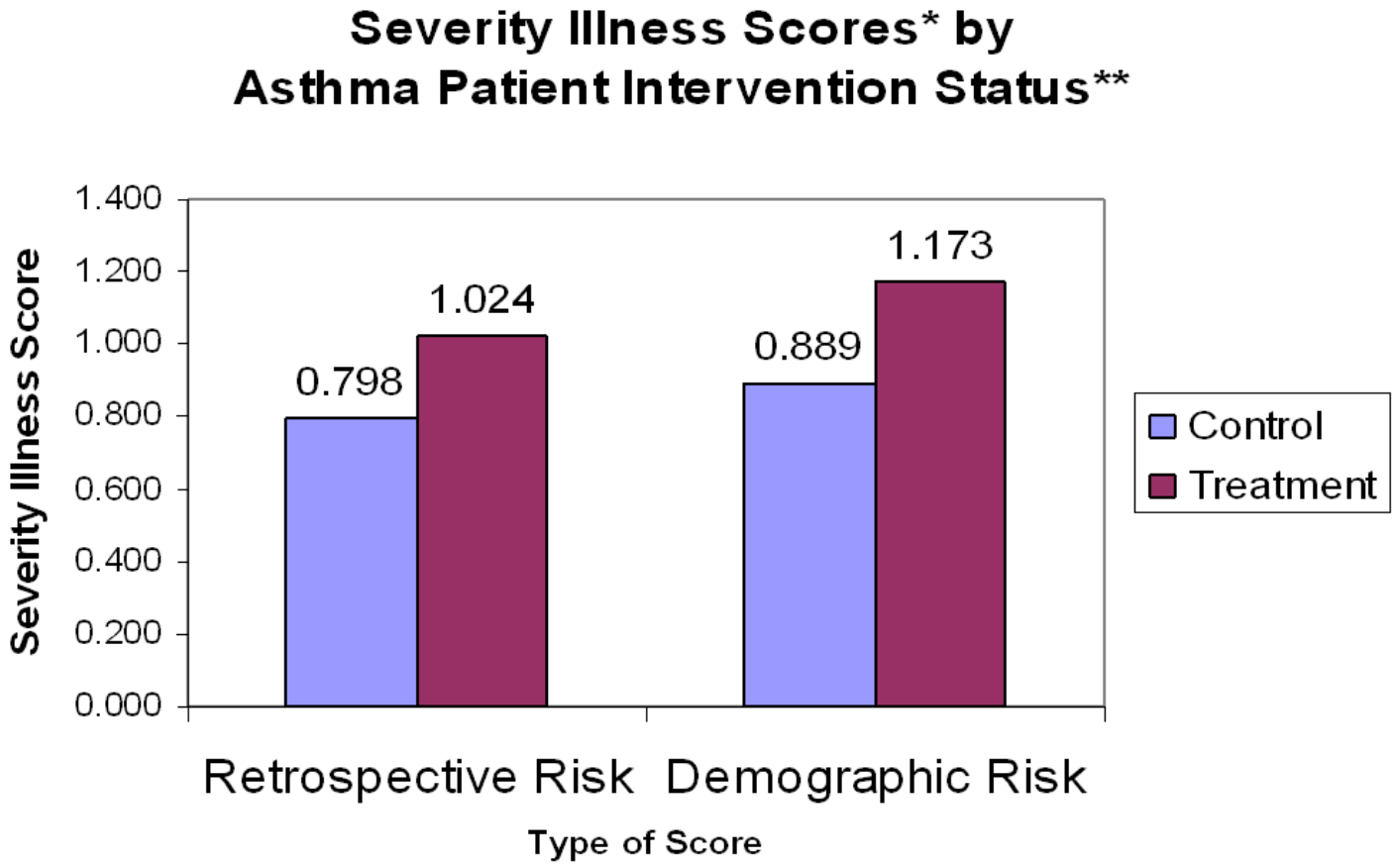
Process of Episode of Care Analysis



Baseline Analysis for Asthma Intervention

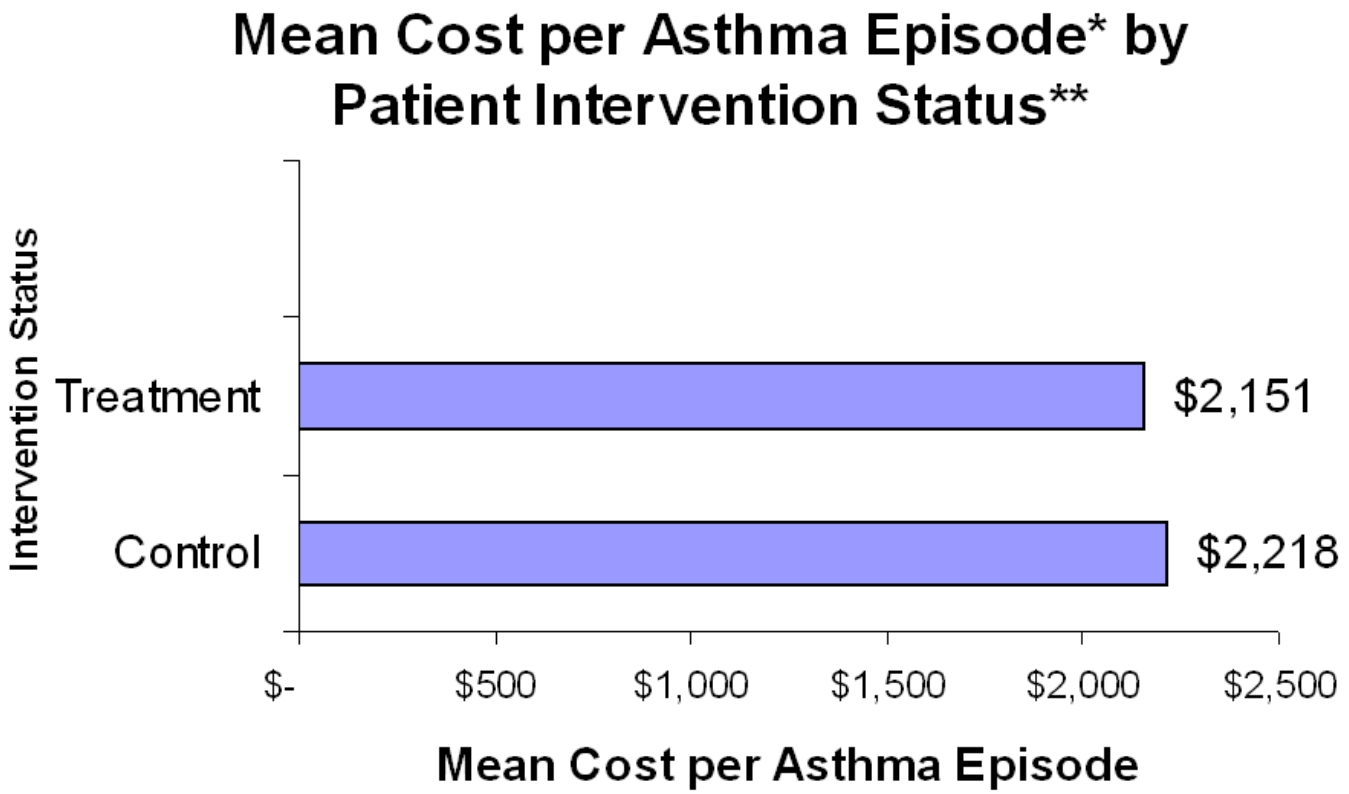
- Processed claims for all Utah recipients (FFS and Encounter)
- Analyzed claims for intervention group identified by research team at the University of Utah
- Established baseline measures for one-year period prior to start of intervention
  - Separate measures for each level of intervention
  - Means and medians of cost categories
  - Severity of illness based on demographics and retrospective care

Preliminary Findings: Asthma Baseline



* Calculated by Ingenix ETG Groups. ** No significant difference in T-Tests.

Preliminary Findings: Asthma Baseline (cont.)



* Calculated by Ingenix ETG Groups. ** No significant difference in T-Tests.

Acknowledgements

Utah DOH	College of Pharmacy	School of Medicine/VA
Lisa Hulbert	Ben Campbell	Brian Sauer
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	Wade Poulson	

Technical Assistance for Health Information Technology and Health Information Exchange in Medicaid and SCHIP

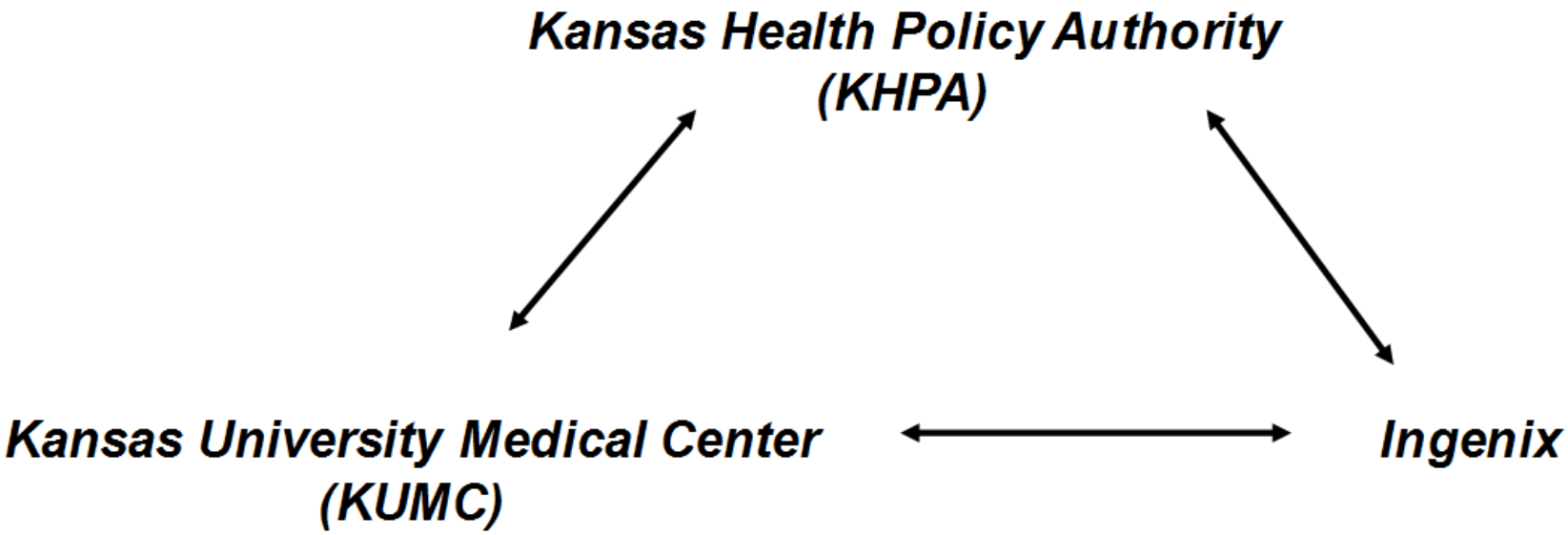
Using Predictive Modeling to Improve Preventative Health Care in the Disabled Medicaid Population

Kansas Medicaid Transformation Grant

Presented by:
Theresa I. Shireman, PhD
Kansas University Medical Center
Department of Preventive Medicine & Public Health

Funded by the Agency for Healthcare Research and Quality

Collaborative Effort



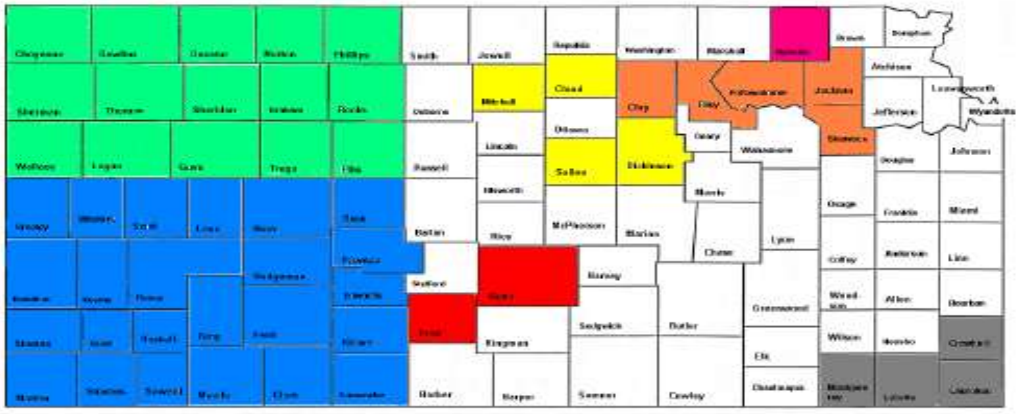
"…develop and maintain a coordinated health policy agenda to improve the health of all Kansans." KHPA

Statement of Project Need

- Persons with disabilities
  - Less likely to receive preventive health care services
  - High rates of chronic comorbidities
  - High rates of medication use: compliance problems
  - Face variety of barriers to quality health care
- Case managers and independent living counselors
  - Support/coordinate vocational and social services
  - New responsibility for medical services coordination
- Ultimate goal… *improve beneficiary health*!

Participating Agencies

- Case managers and independent living counselors recruited from selected agencies:
  - Community Developmental Disability Organizations (CDDOs)
  - Independent Living Centers (ILCs)



HIT Technology: ImpactPro™ (Ingenix)

- Web-based, claims-based querying tool
  - Medicaid-reimbursed services provided during preceding 12 months
- Identify opportunities for care
  - Evidence-based medicine guidelines
- Predictive risk groups [not using]
  - 3-month projections: costs/hospitalizations
  - Normed in commercially insured populations

Field Support

- Project website
- Monthly e-newsletters
  - Chronic diseases, physical health, dental care, medications
  - Feedback on care opportunities
- Consultation with team MD and RPH (KUMC)
  - E-mail based: triaged by project manager

HIT Evaluation: Case Manager/ Counselor Assessments

- Surveys
  - Baseline and conclusion of intervention
- Focus groups
  - Conclusion of intervention
  - Identify barriers and facilitators of implementation and program success
  - Team leaders and selected case managers

HIT Evaluation: Impact on Care

- Changes in:
  - Receipt of preventive care
  - Receipt of chronic care monitoring
  - Medication adherence
- Pre- vs. post-intervention claims data
  - Within participating agencies
  - Across participating and non-participating agencies

Care Opportunities

- “Out of the box” – Ingenix ImpactPro
  - 110 care opportunities
  - Deactivated
    - Not clinically current
    - Redundant or combined into a single CO
    - Not relevant to target population
- User-defined: added/modified
- Deployed 103 care opportunities

Consistency of Quality of Care Measures

- Crosswalk comparison
  - Ingenix ImpactPro care opportunities
  - CMS quality measures
  - HEDIS measures (NCQA 2008)
- Lack of lab data and severity of illness limits measures
- Table available upon request

Diabetes Care: HbA1c

	Participating Agencies		
	CDDOs	ILCs	Non-Participating Agencies
Care Opportunity Description	**N = 73**	**N = 173**	**N = 7,041**
Blood glucose monitoring:			
No HbA1c last 6 months	**61.6%**	**69.4%**	**67.1%**
No HbA1c testing in 12 months	**46.6%**	**54.3%**	**50.1%**

National Medicaid benchmark (HEDIS), 2006:
No HbA1c in last 12 months 23.8%

Available http://web.ncqa.org/tabid/334/Default.aspx

Diabetes Care: Other Labs

	Consumers from Participating Agencies*		Non-Participating Consumers†
	CDDOs	ILCs	
Care Opportunity Description	N = 73	N = 173	N = 7,041
Follow-up care and monitoring of other lab values:			
No evidence of lipid testing	72.6%	69.4%	64.6%
No evidence of visit to eye specialist	68.5%	73.4%	72.8%
Inadequate diabetes care follow-up every 6 months	38.4%	40.5%	50.7%

National Medicaid benchmark (HEDIS), 2006:

No evidence of eye exam	51.4%
No evidence of lipid testing	19.5%

Available http://web.ncqa.org/tabid/334/Default.aspx

Depression Care Measures

	Consumers from Participating Agencies*	Non-Participating Consumers†
Care Opportunity Description	**N = 179**	**N = 5,236**
No follow-up to the initiation of prescription therapy	**10.1%**	**7.4%**
No refills for antidepressives in recent 3 months	**1.1%**	**2.4%**

Hypertension Care Measures

	Consumers from Participating Agencies*	Non-Participating Consumers†
Care Opportunity Description	**N = 179**	**N = 6,487**
No evidence of diuretics while on other hypertension drugs	**43.0%**	**34.2%**
No refills for antihypertensives in recent 3 months	**8.4%**	**10.6%**
Insufficient (gaps in) refills for antihypertensives	**2.2%**	**4.4%**

Asthma Care Measures

	Participating Agencies*	Non-Participating Agencies†
Care Opportunity Description	**N = 61**	**N = 2,186**
Medication-related issues:		
No evidence of inhaled steroids for asthma	**57.4%**	**58.0%**
Multiple prescriptions for rescue meds	**47.5%**	**39.5%**
Evidence of beta-2 agonists w/o inhaled steroids	**36.1%**	**26.9%**
No evidence of rescue med	**29.5%**	**35.5%**
Asthma-related health care use:		
No evidence of primary care visit in recent 6 months	**59.0%**	**68.2%**

Cancer Screening Rates

Cancer Screening (code)		CDDOs	ILCs	Non-Participating Consumers†
No evidence of breast cancer screening	Females, ages 40 up to 65 years	N = 171 70.2%	N = 322 79.2%	N = 17,076 73.9%
No evidence of cervical cancer screening	Females, ages 18 up to 65 years	N = 395 78.5%	N = 367 88.3%	N = 23,561 78.8%
No evidence of colorectal cancer screening	Males & females, ages 50 up to 65 years	N = 175 83.4%	N = 322 80.1%	N = 18,484 76.4%

Cholesterol Monitoring

Cardiac Event Prevention		CDDOs	ILCs	Non-Participating Consumers†
No evidence lipid testing: adults	Males & females, ages 40 up to 65 years	N = 362 84.0%	N = 462 81.4%	29,984 79.8%
No evidence of lipid testing: atypical antipsychotic users	Males & females, ages 18 up to 65 years: min 3 Rxs for atypical	N = 155 87.1%	N = 50 84.0%	4,615 73.9%

User-defined care opportunities.

Other Categories of Measures: ImpactPro

- Atrial fibrillation
- Breast cancer
- Coronary artery disease
- Cerebrovascular disease
- Heart failure
- Chronic kidney disease
- Chronic obstructive pulmonary disease
- Gastric ulcer
- Hepatitis
- Hyperlipidemia
- Low back pain
- Migraine
- Multiple sclerosis
- Osteoarthritis
- Osteoporosis
- Otitis media
- Parkinson's disease
- Prostate cancer
- Rhinitis
- Sinusitis
- Urinary tract infection

Summary

- Disabled Medicaid enrollees (KS)
  - Significant gaps in care, especially in chronic disease monitoring and cancer screening
  - Can case managers/counselors address unmet needs?
- Claims data-based quality measures
  - Limited without clinical specificity or markers
  - Gross visit/medication use level details

Comments and Recommendations for Future Sessions

- Please send your comments and recommendations for future sessions to the project's e-mail address:

  Medicaid-SCHIP-HIT@ahrq.hhs.gov

Project Information

Please send comments and recommendations to:
Medicaid-SCHIP-HIT@ahrq.hhs.gov

or call toll-free:

1-866-253-1627

Medicaid-SCHIP-HIT@ahrq.hhs.gov
http://healthit.ahrq.gov