

Risk Adjusted Rating

Medicaid Managed Information Systems
Nashville, Tennessee
September 17, 2008

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Founder and CMO
Parses, Inc.



AGENDA

Overview of RAR

State Perspective

Plan Perspective

Challenges

Benefits & ROI

Risk Adjusted Rating Methodology

Identifying Members – Only the Beginning

Validation, Proof and Reporting

Applying Clinical Analytics and Technology

End-to-End Technology Enabled RAR Workflow

Case Studies

Why worry about it?

\$Billions Lost

Reduced Case Management

Underreporting of Disease

Reduced Quality of Care

Risk Adjusted Rates

- Predicts medical expenses based on diagnoses
- Matches payment to risk: pay for risk enrolled
- Adverse selection & Fairness: real and imaginary
 - Cherry Pick Risk: paid too much
 - Attract the Sick: paid too little
- Allocates rates does not set the rates
- Improved Data to State: quality studies, P4P

Plans that serve the chronically ill well
Have the financing to provide services

State Perspective

- Improved Reporting to CMS
- Improved Case Management
- Improved Quality of Care
- Reduced Cost of Care
- Provide Proper Funding

\$Billions Lost

Reduced Case Management

Underreporting of Disease

Reduced quality of care

State Actions

- Drive compliance
- Alert physicians
- Work with medical societies
- Encourage, educate and support the plans

Plan Perspective

What are plan's thinking? Compliance, Revenue, Case Management

How are they reacting? Quick Fix vs. Outsource (Issues)

Perceived Benefits

- Improved Revenue
- Compliance
- Improved Case Management
- Improved Quality of Care
- Reduced Cost of Care: Reduce current/future spending

\$Billions Lost

Reduced Case Management

Underreporting of Disease

Reduce Quality of Care

What are the Challenges for Plans?

- Identifying members with high risk diagnoses
- Maintaining diagnosis: reducing loss of persistency
- Validating the diagnosis: high yield effort
- Proving the diagnosis: Choosing wisely
- Justifying the Project: Cost & Physician pushback
- Applying technology to process: Front end vs. back end

Even if the plan is aware, validating a high-risk diagnosis for a member is labor intensive and time consuming.

Problem → Missed Opportunities for Revenue, Risk Management

- 1) Persistence
- Members with Risk-Adjustment Dx lose it in next period!
-

- 2) Presumption
- Presumptive disability is present but not documented.
 - Members eligible for a special category (FFS, SSI, Duals)
 - *Example: Dually eligible but not dually enrolled*
-

- 3) Proxy
- Members with Risk-Adjustment Dx remain undiscovered
 - Diagnoses inferred but missing: *Insulin but no Diabetes*
 - Multiple diagnoses present but not visible or reported
-

- 4) Result
- \$\$ Millions in Lost Premium
 - \$\$ Millions in Unnecessary Medical Expenses
 - Missed Opportunity for Case Management of High Risk

10% Success = Positive ROI

Basic Capitation = \$150/month

High Risk Capitation = \$300/month

Audit Sample size = 1000 members

High risk members found	50 (5%)	100 (10%)	200 (20%)	300 (30%)	400 (40%)
Annual Revenue Increase	\$90,000	\$180,000	\$360,000	\$540,000	\$720,000
Cost @ \$100 per member	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Net Return	-\$10,000	\$80,000	\$260,000	\$440,000	\$620,000
ROI = Net return Divided by Cost	Negative	80%	260%	440%	620%

AUDIT PROCESS



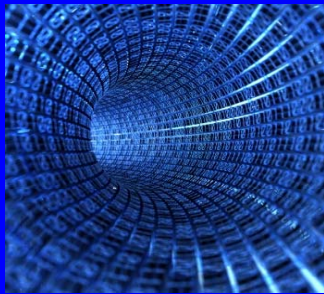


It's going to take me a little longer
to answer my e-mails now....



The Audit Process

Data Mining



**Acquire
Medical Records**



Archive



Image and Index



**Virtual Auditors
Access Tool**



Audit Trail and Report



Education and Monitoring



Preemptive Review

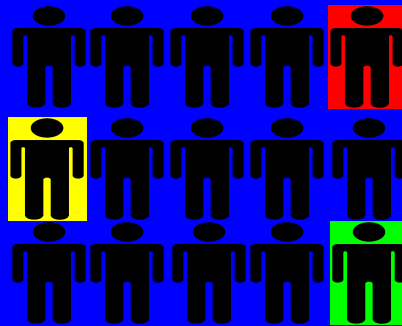


Data Mining

Validate Data



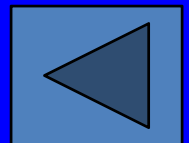
Identify Member



Confirm Diagnosis

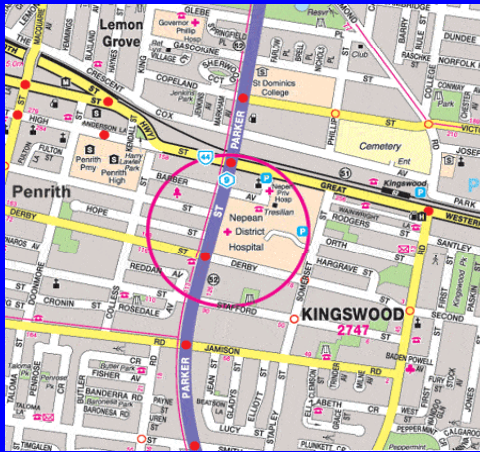


Choice



Acquire Medical Record

Identify Members



Pull High Yield Records



Create Letter Include Record List



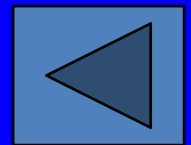
Mail Initial Letters



Fax Letters

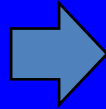


Contact Physician

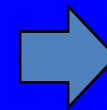


Archive Records

**Receive
Record By Mail**



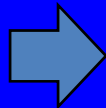
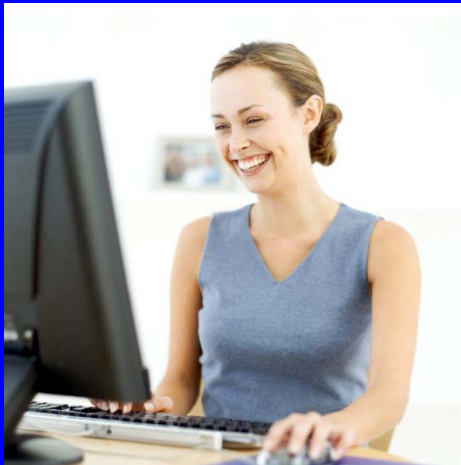
**Receive
Record By Fax**



**Receive
Record By E-Mail**



**Log into
Tracking System**



**Save Record
Into Audit System**

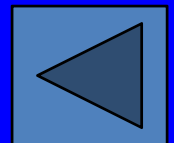
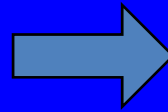


Image and Index

Convert Records



Identify Client, Physician, Member

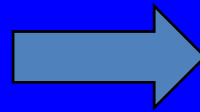


Determine Claim

Sample STERLING Option 1[®]
CMS-1500 Form P.O. Box 69314
 Harrisburg, PA 17106-9314

1500 HEALTH INSURANCE CLAIM FORM
 APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE 06/05

1 MEDICARE MEDICAID MEDICARE PART B (Over 65) CHIP/STAP/ACA OTHER 1A INSURED'S ID NUMBER 656-55-5555A
 2 INSURED'S NAME (Last Name, First Name, Middle Initial) Smith, Bob A. 3 PATIENT'S BIRTH DATE 12 18 38 4 INSURED'S NAME (Last Name, First Name, Middle Initial) Same
 5 PATIENT'S ADDRESS (No. Street) 123 Paradise Road 6 PATIENT RELATIONSHIP TO INSURED Same 7 INSURED'S ADDRESS (No. Street) Same
 8 CITY Seattle 9 STATE WA 10 ZIP CODE 98101 11 INSURED'S POLICY GROUP OR PLAN NUMBER None
 12 OTHER INSURED'S POLICY OR GROUP NUMBER 13 EMPLOYMENT STATUS (Current or Previous) Full-Time 14 INSURED'S DATE OF BIRTH 12 18 38 15 INSURED'S SEX M
 16 OTHER INSURED'S DATE OF BIRTH 17 AUTO ACCIDENT? YES NO 18 EMPLOYER'S NAME OR SCHOOL NAME 19 INSURANCE PLAN NAME OR PROGRAM NAME
 20 EMPLOYER'S NAME OR SCHOOL NAME 21 OTHER ACCIDENT? YES NO 22 THERE ANOTHER HEALTH BENEFIT PLAN? YES NO
 23 INSURANCE PLAN NAME OR PROGRAM NAME 24 RESERVED FOR LOCAL USE 25 RESERVED FOR LOCAL USE
 26 READ BACK OF FORM BEFORE COMPLETING & SIGNING THIS FORM. PATIENTS OR AUTHORIZED PERSON'S SIGNATURE. I authorize the release of any medical or other information necessary to support this claim. I also request payment of payment benefits after it is paid to the party who assigns assignment.
 Signature on File DATE 02/14/2008
 27 AUTHORIZED PROVIDER'S SIGNATURE OR PREGNANCY 28 PATIENT HAS HAD SAME OR SIMILAR SERVICE FROM 29 DATE OF REFERENCE PROVIDER OR OTHER SOURCE 1234567890 30 DATE RELATED TO CURRENT PROVIDER FROM 31 CHARGES
 32 RESERVED FOR LOCAL USE 33 CHARGES (Last 3 Digits) 34 CHARGES ORIGINAL REF. NO.
 35 DISPOSITION OR NATURE OF ILLNESS OR INJURY (Please Items 1, 2, 3, 4 & 5 to Item 34E by Line) L250.00 36 ICD-9-CM PROCEDURE NUMBER 500000000
 37 ICD-9-CM CODE OF SERVICE TO Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 Y9 Y0 38 PROVIDER'S SERVICE OR SUPPLIER (Specify Unusual Circumstances) 39 PROVIDER'S PROVIDER ID #
 39-1 02 05 06 02 05 06 11 99212 1, 2 55.00 1 NR 3322221111
 39-2 02 05 06 02 05 06 11 85610 1, 2 30.00 1 NR 3322221111
 39-3 02 05 06 02 05 06 11 85635 1, 2 30.00 1 NR 3322221111
 40 FEDERAL TAX ID NUMBER 99-1234567 41 PATIENT'S ACCOUNT NO. 12345678 42 ACCEPT ASSIGNMENT? YES NO 43 TOTAL CHARGE 115.00 44 PAYMENT PAID 115.00
 45 PROVIDER'S SIGNATURE OR CREDENTIALS (Apply to this field and use make a part thereof) T. Jones 46 OFFICE FACILITY LOCATION INFORMATION 47 INSURANCE PROVIDER'S PH # (656) 555-5555
 Office Name 123 Main St. Provider Name
 Seattle, WA 12345-2345 Seattle, WA 12345-2345
 48 DATE 02/14/08 49 CLAIM NUMBER 111222333 50 APPROVED CMS-0028-0999 FORM CMS-1500 (08/05)



Link Claim

PARSES

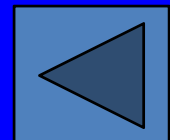
PROVIDER: Gambino-4012208 SPECIALTY: OB/GYN

PATIENT: Cecilia Altman
 DOS: 1/22/2002 REPORTED VISIT TYPE: Established Patient
 CLAIM ID: Demo.3 AUDITED VISIT TYPE: Select...

3 OF 10

SHOW CODE SUBMIT

WITH AUDIT TEXT WITH REVIEW
 99 99499



Audit Record

Medical Record

HISTORY AND PHYSICAL

PATIENT: Marge Pennyapple
PATIENT #: 0001
DATE: 2/4/04

REFERRING PHYSICIAN: Jane Smith, M.D.

CHIEF COMPLAINT: Chronic UTI's

HISTORY OF PRESENT ILLNESS: Ms. Pennyapple is a 29 year old young lady referred to us by Dr. Smith for evaluation of the above. She states that she underwent a c-section in 2003. This was complicated by a reaction to the epidural as well as a post-op hematoma. It has resulted in decreased sensation of her bladder filling. She has had some predominant urge incontinence and urgency, which was preceded by a stress incontinence that she has not been treated for. This has also resulted in a urinary tract infection about once a month. She seemed to be doing timed voiding on her own to decrease the amount of urine and to have less accidents. She says she has good stream when she voids. She feels like she does not completely empty. She has had no dysuria, frequency, or hematuria, but does have nocturia three times a night. Thus Dr. Smith referred her to us for evaluation of the infections and urinary incontinence. She has no history of stones, sexually transmitted disease, or family history of any urologic problems.

PAST MEDICAL HISTORY: significant for depression

PAST SURGICAL HISTORY: tonsillectomy, adenoidectomy, c-section and myringotomy tubes

MEDICATIONS: Zolft

ALLERGIES: STADOL, MORPHINE, LATEX, RELPAX

SOCIAL HISTORY: She is married and is a medical assistant at Jane's Clinic. She does not smoke. Drinks occasionally. No history of alcohol abuse. Exercises regularly

FAMILY HISTORY: significant for hypertension.

REVIEW OF SYSTEMS: please refer to the chart unless otherwise stated.

PHYSICAL EXAM: **Constitutional:** well-nourished, well-developed white female who looks her stated age, in no acute distress, pleasant and cooperative **HEENT:** within normal limits **Neck:** supple, no masses **Respiratory:** clear to auscultation. **Cardiovascular:** Regular rate and rhythm **Gastrointestinal:** abdomen is mildly obese, benign. No CVA tenderness, back without deformity **Extremities:** no clubbing cyanosis or edema **Neuro:** nonfocal. **Genitourinary:** pelvic exam was essentially unremarkable

LABS: urinalysis specific gravity 1.010, pH 5, otherwise negative. PVR of 60 cc

ASSESSMENT/PLAN: We will have her obtain a MES A symptom score, voiding diary and a local cystourethroscopy. We will obtain her records from Dr. Smith for further evaluation and review



Auditing Tool

P A R S E S

PROVIDER: GARCIA REYES- 214057
SPECIALTY: S-U

PATIENT: ABUNDIZ GUADALUPE
DOS: 11/7/2007

CLAIM ID: 2002317022847
MEMBER ID : 5B234

ICD9

	ICD 9 looking for		Doc Supports						
	Alpha description	Numeric (xxxxx.xx)	Yes	No	Hx	PE	Asses	Plan	Other
Code 1	<input type="text"/>	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 2	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 3	<input type="text"/>	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 4	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 5	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 6	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 7	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 8	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 9	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code 10	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comment



Audit Trail and Report

Audit Trail

The above code refers to:

Form: E/M Audit Trail (Data Version)

Claim Information:
 Last Name: DOB: First Name: AKA: Provider ID: 000
 IN DATE: 06/29/2006 DEN: 06/29/2006

Coding Summary:
 Code Set(s): ICD-9-CM-PCS Office
 Code Supported by Documentation: ICD-9-CM-PCS Office

ICD-9	ICD-9-CM	ICD-9-PCS	ICD-9-CM-PCS	ICD-9-CM-PCS	ICD-9-CM-PCS	ICD-9-CM-PCS
✓	✓	✓	✓	✓	✓	✓

Key: Coding Components that are under documentation
 Key: Coding Components that are supported by the code history of

Coding Detail Report:

ICD-9	ICD-9-CM	ICD-9-PCS	ICD-9-CM-PCS	ICD-9-CM-PCS	ICD-9-CM-PCS	ICD-9-CM-PCS
✓	✓	✓	✓	✓	✓	✓

CLAIMS SPECIFIC SUMMARY

Claim #	Patient Name	DOS	CPT	MR Requested	MR Received	Audit CPT	Chng. CPT	Chng. Date	HPI	ROS	PMHx	PE	Dx	Data	Risk	Status
064659515		05/29/2006	99205	04/13/2007	05/16/2007	99204			✓	✓	✓	✓	○	○	○	AFL
065659547		06/01/2006	99205	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064658842		11/20/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064660612		11/11/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064658235		06/18/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064636605		06/03/2005	99204	04/13/2007	05/16/2007	99203			✓	✓	○	○	○	○	○	AFL
064611040		10/23/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL
064624560		06/12/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL
064658841		11/11/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL
064611038		10/23/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL

AFL - Audit Findings Letter

ELEMENTS: HPI=History of present illness, ROS=Review of Systems, PMHx=Past Medical, social and family history, PE=95 or 97 exam, Dx=Number of diagnoses, Data=Amount of data reviewed, Risk=Medical Risk.

✓ = supported by documentation
 ○ = not supported by documentation

Audit Summary

Medical Records Reference Sheet Date: 06/12/2007

Records Requested: 10

Dr. Sample

Overall Error Rate: 30%

Claims Specific Summary

Claim #	Patient Name	DOS	CPT	MR Requested	MR Received	Audit CPT	Chng. CPT	Chng. Date	HPI	ROS	PMHx	PE	Dx	Data	Risk	Status
064659515		05/29/2006	99205	04/13/2007	05/16/2007	99204			✓	✓	✓	✓	○	○	○	AFL
065659547		06/01/2006	99205	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064658842		11/20/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064660612		11/11/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064658235		06/18/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	✓	○	○	○	○	AFL
064636605		06/03/2005	99204	04/13/2007	05/16/2007	99203			✓	✓	○	○	○	○	○	AFL
064611040		10/23/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL
064624560		06/12/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL
064658841		11/11/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL
064611038		10/23/2005	99204	04/13/2007	05/16/2007	99204			✓	✓	○	○	○	○	○	AFL

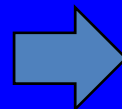
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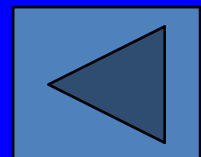
✓ = supported by documentation
 ○ = not supported by documentation



Deliver Hardcopies



Updates Available Over Internet



Education

Parses Education Workflow

Website



Links to References (95/97 DG's)
 Links to Testing
 Links to Education



Detailed Report

FDA



Increased Acceptance



Physician Learns from his Records

Side by Side

1:1 or Group

Webinar

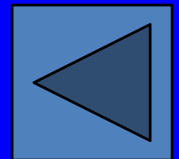
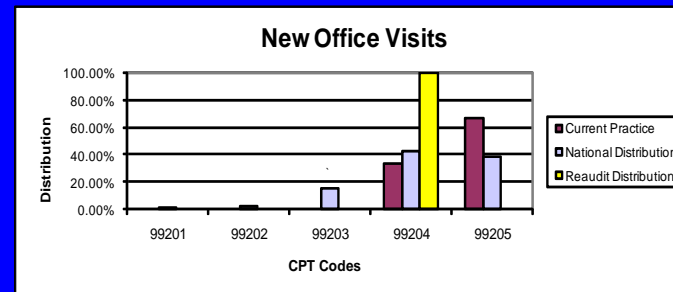
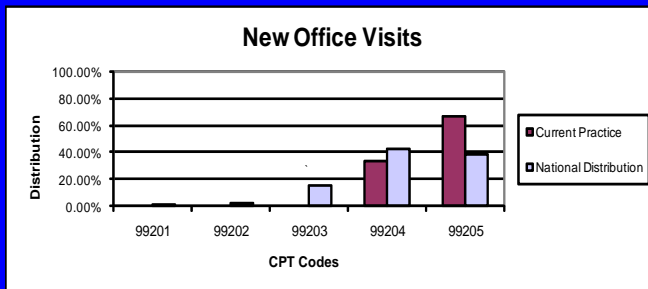


Review Actual Physician Records



Individualized Training

Track
 And
 Monitor

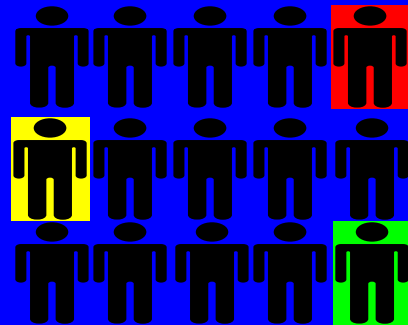


Preemptive Review

Review Member



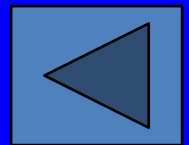
Identify Member



Contact Doctor



Doctor Visit



Typical Components of Complete Solution

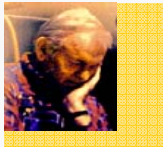
-
- | | |
|----------------|---|
| 1. Data Mining | <ul style="list-style-type: none">• Identify Members with Suspected High Risk Diagnoses |
| – Validation | <ul style="list-style-type: none">• Confirm Diagnoses: Identify High-yield Members |
| – Data Mining | <ul style="list-style-type: none">• Choose Wisely: Identify High-yield Medical Records |
-
- | | |
|-----------------------|--|
| 2. Case Documentation | <ul style="list-style-type: none">• “Virtual Medical Record” documents evidence of diagnoses |
|-----------------------|--|
-
- | | |
|-----------------|---|
| 3. Chart Review | <ul style="list-style-type: none">• Retrieve Medical Record: Source Document• Audit Medical Record: MD, RN, CPC• Resubmit correct diagnosis |
|-----------------|---|
-
- | | |
|---------------|---|
| 4. Enrollment | <ul style="list-style-type: none">• Identify members with eligible disabilities, status, conditions• Assist Members in Enrollment in SSI/SSDI/ Medicare, other |
|---------------|---|
-
- | | |
|-----------------------------|---|
| 5. Monitoring and Education | <ul style="list-style-type: none">• Rolling analysis follows Members to avoid loss of persistency• Identifies members with emerging high risk potential• Educate Providers in advance of Reporting Period |
|-----------------------------|---|
-
- | | |
|----------------------|---|
| 6. PREEMPTIVE REVIEW | <ul style="list-style-type: none">• Identify Members who need PCP Visit |
|----------------------|---|
-

Hi-Yield Chart Review

- Use clinical algorithms, and mine data to identify members/records with overlooked diagnoses that influence risk scores
- Clinically Based Algorithms Identify High Yield Charts
- High Yield List reduces chart review by 2/3 – focusing on remaining 1/3 with relatively high probability of finding an overlooked diagnosis
- 40% to 60% of High Yield Charts yielded overlooked diagnoses
- ROI using High-Yield Chart Review Exceeds 250%

Case Illustrations: Before/After our Analysis

Member Profiles



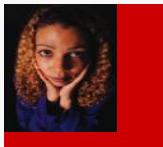
Tom

- Multiple Sclerosis
- Asthma (smoker)
- COPD



Frances

- Longstanding diabetes
- Hypertension/Strokes
- Depression



Nadia

- Prior depression Dx
- Recently became Pregnant



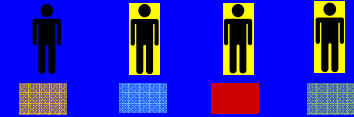
Mae

- Spine injury
- Wheelchair dependent
- Dually eligible but not dually enrolled

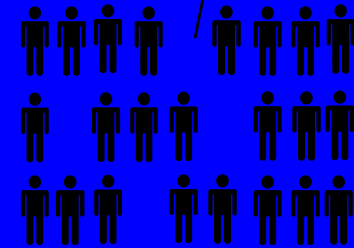
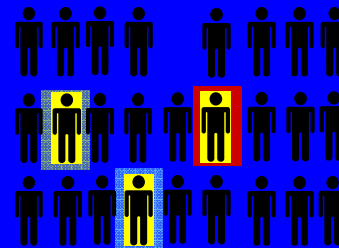
Before

After

Documented as Eligible for Higher Premium



General Membership



Tom

- One Dx documented
- Eligible for Risk Adjustment

- Additional Dx documented
- Higher Risk Adjustment

Frances

- Dx not documented despite longstanding diabetes
- Missed Risk Adjustment

- 2nd & 3rd Dx identified and documented
- Risk adjustment applied

Nadia

- Prior depression Dx makes pregnant teen RAR eligible But pregnancy Dx not discovered = no Risk Adj.

- Pregnancy triggers early identification of eligibility
- Risk adjustment applied

Mae

- Disability = eligible for SSA and Medicare, but she is not yet enrolled
- Missed Risk Adjustment

- Mae gets help applying for SSI/SSDI & Medicare
- Now dually enrolled, she is eligible for special carve-out
- Reduced risk for Health Plan

Expected Benefits

- Recover/Preempt lost persistency
- Higher top line from Higher premiums
- Higher Bottom Line → Lower medical expenses through identification of high risk consumers for Case Management
- Flexible over time as Risk Adjustment rules change
- Shift Health Plan risk to FFS or other Programs

Thank you

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White papers and Case Studies