

# From Transaction to Total Value Care

# **Geisinger's Transformation Roadmap**

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# **Agenda**

- Put yourself in your patient's shoes
- The Geisinger Story
  - History
- The Geisinger Transformation
  - Integrated Population Management
  - Value Micro-Delivery Systems
  - Quality Outcomes Program
- Guide to using data



#### **Our Founder**

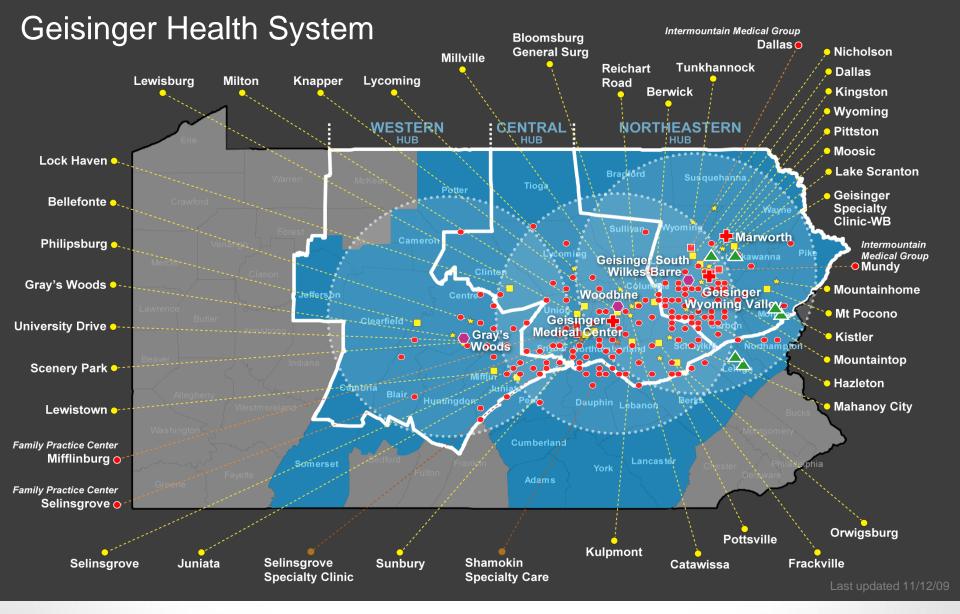


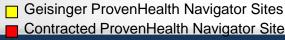
"Make my hospital right, make it the best."

Abigail Geisinger 1827-1921

"Geisinger Quality - Striving for Perfection"... 2006 - 2011







Contracted ProvenHealth Navigator Sites

Geisinger Inpatient Facilities Ambulatory Care Facility

Geisinger Health System Hub and Spoke Market Area Not for reuse or distribution without permission eisings! Health System Confidential and Propinitary

Careworks Convenient Healthcare



#### **Geisinger Health System**

An Integrated Health Service Organization

Provider Facilities \$1,671M

#### ➤ Geisinger Medical Center

- Danville includes Hospital for Advanced Medicine, Janet Weis Children's Hospital, Women's Health Pavilion, Level I Trauma Center, Ambulatory Surgery Center
- Geisinger Shamokin Community Hospital
- **➤** Geisinger Northeast
  - Geisinger Wyoming Valley Medical Center

includes Heart Hospital, Henry Cancer Center.

and Level II Trauma Center

- Geisinger South Wilkes-Barre includes Adult and Pediatric Urgent Care, Ambulatory Surgery Center, Inpatient Rehabilitation, Pain Management, and Sleep Center.
- · Geisinger Community Medical Center
- > Geisinger-Bloomsburg Hospital
- Marworth Alcohol & Chemical Dependency Treatment Center
- ➤ Mountain View Care Center
- ➤ Bloomsburg Health Care Center
- > > 77K admissions/OBS & SORUs
- >1,619 licensed inpatient beds

Physician
Practice Group
\$757M

- > Multispecialty group
- > ~950 physician FTEs
- > ~560 advanced practitioners FTEs
- 71 primary & specialty clinic sites (41 community practice sites)
- > 1 outpatient surgery center
- > ~ 2.3 million clinic outpatient visits
- > ~380 resident & fellow FTEs

Managed
Care Companies
\$1,541M

- ~322,000 members (including ~68,000 Medicare Advantage members)
- Diversified products
- > ~34,000 contracted providers/facilities
- > 43 PA counties

Note: Numerical references based on fiscal 2013 budget.



The NEW ENGLAND JOURNAL of MEDICINE

#### SPECIAL ARTICLE

#### The Quality of Health Care Delivered to Adults in the United States

Elizabeth A. McGlynn, Ph.D., Steven M. Asch, M.D., M.P.H., John Adams, Ph.D., Joan Keesey, B.A., Jennifer Hicks, M.P.H., Ph.D., Alison DeCristofaro, M.P.H., and Eve A. Kerr, M.D., M.P.H.

Adults in the US received 54.9% of recommended care

Acute care – 53.5%

Care for chronic conditions – 56.1%

Preventive care – 54.9%



# Time Required for Primary Care of Patients

- Acute Care
- Preventive Care
- Chronic Care

- 4.6 hours/day
- 7.4 hours/day
- 10.6 hours/day 22.6 Hours/day



PHN: The foundation for transformation

 Transform primary care from transaction to value focus

 Act as Value Vehicle (Integrator) to improve quality and efficiency across the spectrum of care







# **Components of Transformation**

Geisinger's PHN model five core components:

- Patient Centered Primary Care
- Integrated Population Management
- Value Micro-Delivery Systems
- Quality Outcomes Program
- Value Reimbursement Program



# **Patient Centered Primary Care**

- Patient and family engagement & activation
  - Self-management education
  - Informed decision making
- Physician-led team based care
  - See value of population management
  - Set stage for expectation of practice
  - Acute/chronic illness care with enhanced access for expanded scope of services
  - Responsibility and awareness of where patient is at all times – hospital, SNF, home
- Chronic disease and preventive care optimization via ITenabled planned visits
  - EMR tools
  - HP tools for non-EMR practices



# Integrated Population Management

- Embedded Case Managers
  - Use of Predictive Modeling
- Monthly "Medical Home Meetings"
  - Physician leadership & engagement
  - Role delineation
  - Case studies
  - Outcomes review
- Data and Tools
  - Pushing typical HP analytics out to practice
  - Leveraging EHR capabilities



\$46,972.00

\$137,724.00

\$70,344.00

\$49,157.00

\$133,870.00

\$25,981.00

\$113,895.00

		Predictive Modeling							
Site#	Forecasted Risk Index	AIS	CIS	Risk Rank	Sex	Age	Total Paid	Forecasted Cost	Primary ETG
C101	4.1	91	35	5	M	82	\$42,187.00	\$44,456.00	Cerebrovascu Accident

M

M

F

M

F

M

F

68

67

75

81

71

81

79

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C101

C101

C101

C101

C101

C101

C102

80

100

93

94

97

90

95

4

6.21

3.19

4.53

10.2

5.59

8.87

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37

28

25

60

51

62

50

5

5

5

5

5

5

5

Program Status as of G Group 8/27/08 cular

Cardiovascular

Infectious Disease

**Degenerative Ortho** 

Cerebrovascular

Renal Failure,

Renal Failure,

Renal Failure,

Chronic & Nephrosis

Chronic & Nephrosis

Chronic & Nephrosis

Surgery

disease

Accident

\$43,405.00

\$67,387.00

\$34,563.00

\$49,173.00

\$110,630.00

\$60,613.00

\$96,235.00

MHOpen

met

Closed-Need

MHIdentified

Needs meet

MHOpen

MHIdentified

MHCL-CC

REDEFINING BOUNDARIES"

MHCL-

# **Embedded Case Management has been Core to our Success**

Personal Care Link

Embedded Case Manager

Recognized Team
Member

Comprehensive Care Review – medical, social support

TOC follow-up – acute care, SNF, ED

Direct phone access – questions, exacerbation protocols

Patient, family support contact

- High risk patient caseload

- 15 20% Medicare
- 5% commercial
- 125 150 pts per CM
- 1 CM per 800 Medicare lives
- 1 CM per 5000 commercial lives
  - Not disease management focused
  - Focus on those at most risk
- Focus on driving issue within the case

Regular follow-up of high risk patients

Facilitates access – PCP, specialist, ancillary

Facilitate special arrangements – home care, hospice, AAA

Links health care team to payer



# **Medical Home Meetings**

- Workflow issues
  - Reinforce communication
  - Identify opportunities
  - Propose solutions
- Case study review
  - Hospitalizations and readmissions
  - "Successes in the Office"
- Metrics review



# Medical Home Meetings Transitions of Care

- Patient contact within 24-48 hours post discharge
- Telephonic outreach
  - Medication reconciliation
  - Ensure safe transition post discharge with appropriate services in place
    - Home Health
    - DME
    - Safe to be in their home?
  - Facilitate post-hospital PCP appt. within 3 -5 days



#### **Medical Home Admission Review**

Was the patient in Active CM prior to admission?
When/What was the first contact with the office?
Did we employ any home management strategies?
Did we employ any office based strategies?
Did we employ any advanced office based strategies (IM/TV/Home IV etc)?
Did we make appropriate post admit CM contact (ideally <24 hours, target <=48 hours)?  Did we make appropriate post admit provider contact (ideally 3-5 days, target <=7 days)?
How could have we responded differently?



How was the process from the patient perspective?

#### **ProvenHealth Navigator Quality Criteria - 2009**

Quality Indicator	Goal			
Patient Encounters	Annual increase patient encounters			
Diabetes	Annual Improvement site Diabetes Bundle			
<b>Coronary Artery Disease</b>	Annual Improvement site CAD bundle			
Preventive Care	Annual Improvement site Preventive bundle			
Heart Failure	≥ 90% patients w/documented action plan			
Follow-up with Provider	> 75% within 1 week of Inpt/SNF discharge			
Follow-up with CM	> 75% telephone contact w/in 24 - 48 hrs discharge			
Patient Satisfaction	PHN patient satisfaction survey implemented on Phase 1 and Phase 2 sites			
Nursing Home Management	Nursing Home Medical Management Model operational and serving at least 2 MH sites per region			
NCQA PPC-PCMH Certification	Certification obtained			



#### **ProvenHealth Navigator Quality Criteria - 2010**

Quality Indicator	Goal
Diabetes	Annual Improvement site Diabetes Bundle
<b>Coronary Artery Disease</b>	Annual Improvement site CAD bundle
Preventive Care	Annual Improvement site Preventive bundle
Heart Failure	≥ 90% patients w/documented action plan
Follow-up with Provider	> 75% within 1 week of Inpt/SNF discharge
Follow-up with CM	> 75% telephone contact w/in 24 - 48 hrs discharge
Patient Satisfaction	PHN patient satisfaction survey
Nursing Home readmissions	Educate providers on the NH readmission tool/ each site to be aware of their current NH readmission rates
Efficient Specialist	Develop plan to utilize efficient specialists
Quality Improvement project	Develop a site-specific QI project



#### **2011 Quality Indicators**

Quality Indicators	Weight
Diabetes Bundle:  - Demonstrate improvement in bundle score over prior year or maintain an overall bundle rate above defined threshold and demonstrate improvement in one control measure such as A1C <7% (< 8% for GOLD), LDL <100, or BP<130/80 over prior year or maintenance above CPSL's optimum achievement level	10%
CAD Bundle:  - Demonstrate improvement in bundle score over prior year or maintain an overall bundle score above defined threshold and demonstrate improvement in one control measure such as LDL<100, or <70 if high risk, or BP<140/90 over prior year or maintenance above CPSL's optimum achievement level	10%
Preventive Care Bundle:  - Demonstrate improvement in bundle score over prior year or maintain an overall bundle rate above defined threshold and demonstrate improvement in Mammogram screening, Pap Screening, or Colon cancer screening over prior year or maintenance above CPSL's optimum achievement level	10%
Provider follow-up:  ≥ 75% provider visit within 7 days of acute or SNF discharge	10%
HTN Bundle:  - Develop and implement a process to improve htn control with demonstrated improvement in blood pressure control from baseline	10%
CM follow-up:  ≥ 75% telephone contact within 48 hrs of acute or SNF discharge	10%
Advanced Illness: - Develop & implement a training program on advanced illness for staff AND develop a reporting tool for measuring documentation of Advance Directives	10%
Nursing Home Readmission Rate:	10%

#### - Demonstrate improvement over previous year or maintain a rate below the defined threshold in the "Nursing

Home to home" 30 day-readmission rate **PHN Patient Satisfaction:** 

#### - Review site specific patient satisfaction data & implement action plan that was developed in 2010

TOTAL

**Quality Improvement Project:** 

- Implement the 2010 QI project developed & demonstrate an improvement from baseline

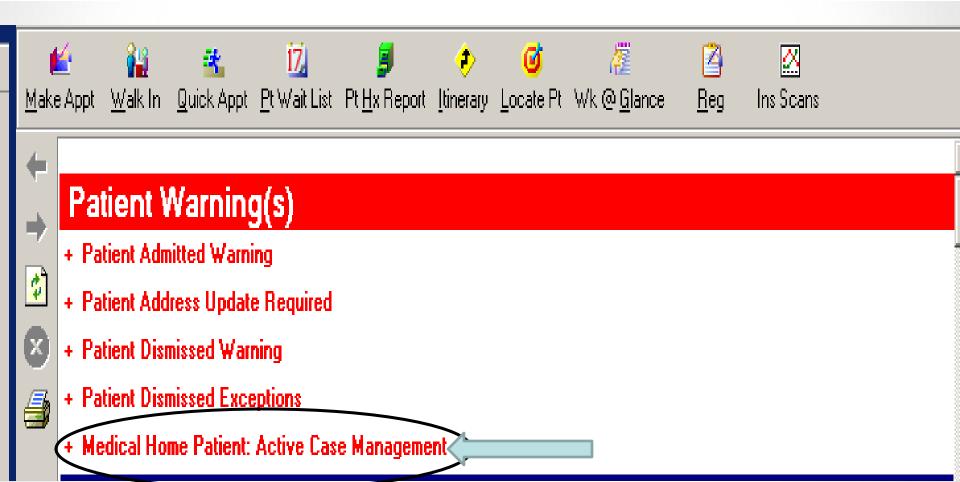
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10%

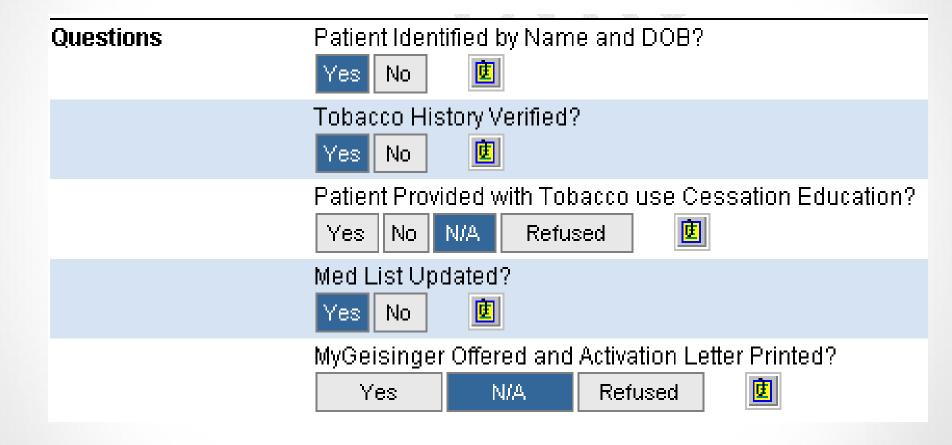
10%

# **EHR Alert for Scheduling**





# **Nurse Rooming Tool**

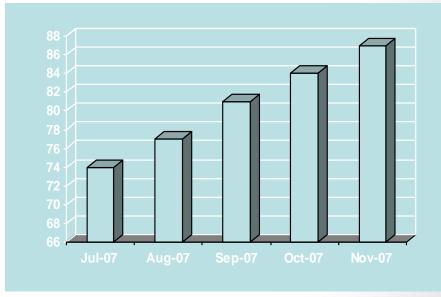


# Nurse Rooming Tool Improvements

#### **MyG Enrollments**

# 8000 7000 6000 5000 4000 3000 2000 Nurses Dec-05 Jan-06 Feb-06 Mar-06

# **Urine Micro albumin**



#### Patient Activation: Portal-Based Report Card

#### Your online health management tool

The following Health Reminders are recommended for people of your age, gender, and medical history. If the procedures and dates are different from what your doctor has discussed with you, please follow your doctor's recommendation.

If you want to find previous dates that health reminders were completed, click date Last Done.

Schedule	Name	Due Date	Status	Last Done
	DILATED EYE EXAM (PERFORMED BY AN EYE DOCTOR)	03/06/1968	Overdue	
	URINE MICROALBUMIN (URINE PROTEIN)	03/06/1968	Overdue	
	DIABETIC FOOT EXAM (AT LEAST EVERY 12 MONTHS)	03/06/1968	Overdue	
	PNEUMONIA SHOT (ONCE IN A LIFETIME, MINIMUM)	03/06/1968	Overdue	
	HEMOGLOBIN A1C (3 MONTH BLOOD SUGAR AVERAGE)	03/06/1968	Overdue	
	Mammogram-yearly, Ages 40-75	07/07/2006		07/07/2005
	DILATED EYE EXAM (PERFORMED BY AN EYE DOCTOR)	10/01/2006		
	LDL CHOLESTEROL (BAD CHOLESTEROL)	01/28/2007		01/28/2006
	Pap Smear (Every 2 Years)	02/13/2008		02/13/2006

To request an appointment for one of the procedures listed above, check in the schedule column and click **Schedule**.



#### **Provider Best Practice Alerts**

#### ▶ BestPractice Alerts CKD-3. Hgb target 10-12. Last HGB=8.8 on 7/31/2009 ✓ Open SmartSet: GHS CKD STAGE 3 ABNORMAL HGB Jump to CKD Management Report CKD-3. Phosphorus target 2.7-4.6 Last PHOSPHORUS=5.2 on 7/31/2009 ☑ Open SmartSet: GHS CKD STAGE 3 ABNORMAL PHOSPHORUS Jump to CKD Management Report To Dx of CAD and comorbid condition(s) - DM, HTN, CKD, and/or LVSD. Consider ACE/ARB therapy. Jump to Order Entry The Dx of CAD-LDL less than 100 is standard. Last LDLCALC=165 on 7/31/2009 Last LDLDIRECT: Not on file Last LDLCHOL: Not on file ✓ Open SmartSet: BPA GHS CAD LDL #3391 Hx of CAD. Consider aspirin, unless contraindicated. ✓ Open SmartSet: CAD ASPIRIN ORDER #3392 The Dx of CAD and comorbid condition(s) - DM, HTN, CKD, and/or LVSD. Consider ACE/ARB therapy. Jump to Order Entry



#### **Diabetes Best Practice Alerts**

#### BestPractice Alerts

#### Action(s)

- Dx of DM. LDL every 12 months, Standard <100.</p>
  - Open SmartSet: BPA GHS DIABETES LDL
- Dx of DM. Pneumovax at least one lifetime vaccine. One time revaccination >64 years old (if vaccine given more than 5 years ago).
  - ✓ Open SmartSet: BPA\_GHS\_PNEUMOVAX
- Dx of DM. Flu vaccine once per flu season is standard.
  - Open SmartSet: BPA-GHS\_DIABETES\_FLU
- ▼ Dx of DM. HgbA1c every 3 months, Standard < 7% Last HGBA1C: Not on file
  - Open SmartSet: BPA GHS DIABETES HGBA1C Greater than 7.0
- Dx of DM. Microalbumin every 12 month, Standard < 30.</p>
  - Open SmartSet: BPA GHS DIABETES MICROALBUMIN



#### Diabetes: Patient Letter/Report Card

Personal Diabetic Report Card: Abigail L George

4/28/2006

Below is a summary of relevant Diabetes values that we feel could help you manage your health better. Feel free to discuss this with your care provider.

#### HEMOGLOBIN A1C

Your most recent Hemoglobin A1c values are:

HEMOGLOBIN, A1C(%) Coll Dt/Tm Resulted

Value Status

11/21/05 4:21P 11/22/05

3/2/06 11:23A 3/2/06

6.6\* FINAL 8.7\* FINAL

The above values should be LESS than 7 (< 7). If these are more than 7 then you have a higher chance of having eye, kidney, and heart problems in the future.

#### CHOLESTEROL

Your most recent LDL cholesterol (bad cholesterol) results are:

LDL (CALCULATED)(mg/dL)

Value Status Coll Dt/Tm Resulted

11/15/05 8:20A 11/15/05 110 FINAL

The above values should be LESS than 100 (<100). If these are consistently higher than 100. then your chance for heart attack and stroke increases yearly.

#### BLOOD PRESSURE

Your most recent Blood Pressure readings are:

Date: BP:

04/28/2006 100/60 04/25/2006 140/80

Last 3 BP Readings:

03/02/2006 124/80

The above values should be LESS than 130/80. Contact me if your readings at home are consistently higher than this.

LDL values and goals.

Last 2-3 values

displayed

Last BP readings



## **Chronic Care Management**

#### Heart Failure

- Diuretic Titration
   Protocol
- Daily weights
- Tele-monitoring
- Education
- Self management
- Outreach

#### COPD

- Rescue kit
- Symptom monitoring
- Education
- Self management
- Medication
- Outreach



#### **DM Health Maintenance Alerts**

Health Maintena	nce			
<b>⊠</b> <u>O</u> verride	X			
Due Date	Procedure	Date Satisfied	Date Satisfied	Date Satisfied
02/22/1978	DIABETES-PNEUMONIA VACCINE			
11/28/2006	DIABETES-EYE EXAM	11/28/2005		
11/14/2006	DIABETES-FLU VACCINE, YEARLY	11/14/2005		
03/02/2007	DIABETES-FOOT EXAM	03/02/2006		
09/02/2006	DIABETES-HGBA1C EVERY 6 MONTHS	03/02/2006	11/22/2005	02/23/1997
11/15/2006	DIABETES-LDL EVERY 12 MONTHS	11/15/2005		
11/28/2006	DIABETES-URINE MICROALBUMIN EVERY 12 M	11/28/2005		
10/28/2006	MAMMOGRAM-YEARLY, AGES 40-75	10/28/2005-DONE B		
11/21/2006	PAP SMEAR, YEARLY	11/21/2005		

#### **COPD Smart Set Tool**

☐ Rescue Antibiotics (multiple)
☐ AUGMENTIN 875-125 MG TABS (10 days - start at onset of symptoms with your prednisone)
☐ CEFTIN 500 MG TABS (10 days of therapy - start at onset of symptoms with your prednisone)
□ DOXYCYCLINE HYCLATE 100 MG CAPS (10 days of therapy - start at onset of symptoms with y
☐ ZITHROMAX 250 MG TABS (5 days of therapy - start at onset of symptoms with your prednison)
☐ Rescue Antibiotics - HISTORICAL MEDS (multiple)
☐ HISTORICAL - AUGMENTIN 875-125 MG TABS (10 days - start at onset of symptoms with your
☐ HISTORICAL - CEFTIN 500 MG TABS (10 days of therapy - start at onset of symptoms with your
☐ HISTORICAL - DOXYCYCLINE HYCLATE 100 MG CAPS (10 days of therapy - start at onset of section 1.0 days of the start at a section 2.0 days of the start at onset of section 2.0 days of section 2.0 day
☐ HISTORICAL - ZITHROMAX 250 MG TABS (5 days of therapy - start at onset of symptoms with
☐ Rescue Steroid (multiple)
☑ PREDNISONE (PAK) 10 MG PO TABS (Taper Over 16 days start at the onset of symptoms with
☐ HISTORICAL - PREDNISONE (PAK) 10 MG PO TABS (Taper Over 16 days start at the onset of
☐ Patient Instructions - Go to Patient Handouts Activity (Tab)
☐ Print from Patient Instructions Section - Allows to Print at Your Location (multiple)
COPD Rescue Patient Instructions (right click to make changes)
☐ Chief Complaint/Reason for Call
☐ Chief Complaint/Reason for Call (multiple)
✓ Case Management - COPD Rescue Kit
☐ Documentation
☐ Notes (multiple)
✓ COPD Documentation
F Diagnosis

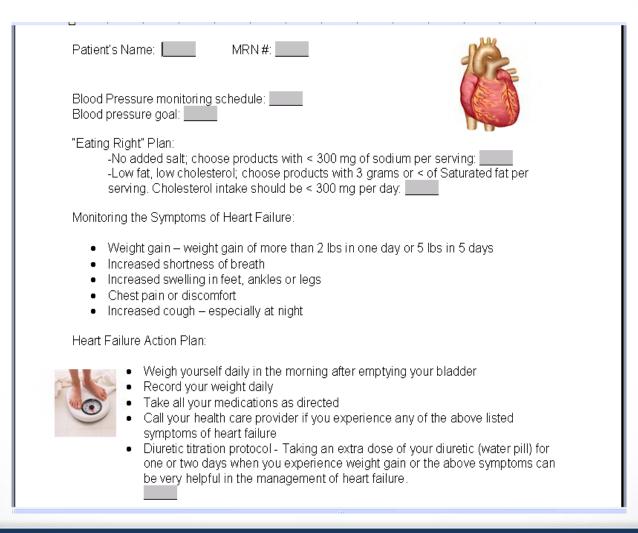


#### **DTP Smart Set Tool**

🗖 Diuretic Titration Protocol
☐ Case Manager: DTP Documentation/Request to Provider (multiple)
Diuretic Titration Protocol: Patient with Once Daily Diuretic
Diuretic Titration Protocol: Patient with Twice per Day Diuretic
☐ Medications
☐ DTP: Metolazone PRN (multiple)
✓ METOLAZONE 2.5 MG PO TABS
☐ HISTORICAL - METOLAZONE 2.5 MG PO TABS
☐ Patient Instructions - Go to Pt Handouts Activitiy (Tab)
☐ Print from Patient Instructions Section - allows to print at your location (multiple)
✓ Patient Instructions - Right click here to complete (F2)
□ Diagnosis
⊡ Diagnosis (single)
☑ CHF [428.0]
☐ Chief Complaint
☐ Chief Complaint/Reason for Call (single)
✓ Case Management - Diurectic Titration Protocol



# **CHF Self Management Plan**



# **Value Care Systems**

Collaboration of Partners: Each Party Doing What It Does Best...

- 360 degree care systems
  - Specialty Care
  - Skilled Nursing Facilities
  - Home Health



### Collaboration of Partners: Each Party Doing What It Does Best...

#### **Primary Care**

- Identify best practice
- Design systems of care
- Educate patient and family
- Deliver care
- Report patient outcomes
- Continually improve

## **Specialty** Care

- Work with more complex patients
- Disease-focused care
- Guidance to POP for care plan if needed

#### **Hospital**

- Stabilize patients
- Assist with placement
- TOC

#### **Health Plan**

- Population analysis
- Align reimbursement
- Finance care
- Engage member and employer
- Report population outcomes
- Take to market



# **Specialists Engagement**

- CHF
  - Cardiology input to develop Diuretic Titration Pathway
- Osteoporosis

HIROC

Rheumatology to generate - dexa order when due

PCP to signs pended order



# **Specialists Engagement**

- HTN
  - Pilot with Primary Care and Nephro for high touch HTN Management
- Diabetes
  - Pilot with Endocrinology
    - High touch
    - 12-week program
    - Based at PCP site with Certified Diabetic Educator
    - Direct contact with Endocrinology



## Linking Specialists to PHN

Active & Operational

RA, COPD, DM, HTN & Communication Patterns



Early Implementation

Hospitalists, Advanced Illness



**Under Development** 

Peds Behavioral Health, Geriatrics, Liver Failure



## Collaboration of Partners: Each Party Doing What It Does Best...

#### SNF Advanced Practitioner

- Medication Reconciliation
- Coordinate Care at SNF; ensure progress toward goal of discharge
- Ensure follow-up with PCP at discharge with updated medications list and care plan
- Resolve/treat acute issues that arise while in SNF

#### **Transitions Nurse**

- Transition to home to SNF
- Coordinate discharge to home or SNF with PCP/Home Health
- Coordinate updated medications list to PCP/Pharmacy

#### **PCP**

- Optimize patient in Outpatient setting
- Ensure follow-up after hospital or SNF stay



## Driving Innovation to Nursing Homes

- "SNFist" model in targeted nursing homes
  - Mid-level with daily presence in SNF
  - Close connectivity to PHN case manager
- Focus on transitions of care and length of stay
  - Hospital to SNF
  - SNF to home



## Opportunities for Innovation Exist in the Nursing Home

### Current state of care in nursing homes:

- Skilled: 1 in 3 patients are readmitted back to acute care
- LTC: Average 2-4 hospital admissions annually
- Opportunities exist to improve quality wounds, falls, infection, pain, etc.
- End of life poorly managed



## Creating a New Delivery Model is Critical

- Daily presence of an advanced practitioner
- Focus on care redesign
  - Medication reconciliation
  - Earlier identification of acute exacerbations
  - Prevention focus good skin care, I's & O's, fall prevention
  - Enhanced connectivity to case manager & primary care team for discharge planning

Redesigning care in the Nursing Home as we have done in Primary Care



### **SNFist Role**

- See new admissions within 24 hours
- See skilled patients 2-3 times per week
- Communication with PHN Case Managers
- Communication with PCP
- See LTC patients every 30 days
- Utilize the health assessment tool



## **SNFist Program Goals and Objectives**

- Transitions of Care from the SNF to Home
  - Arrange a 7-day discharge f/u appointment with the PCP
    - Use Cadence schedule for GHS providers
  - Open Communication with Case Managers
    - Use EpicCare tools to alert the Case Manager prior to discharge
- Improve Communication between Provider(s) and provide consistent follow-up care and routine care
  - Use the Tools in EpicCare (Smart Sets)
    - Document the evaluations
    - Use Cadence tool to be able to track patients



## **SNFist Program Goals and Objectives**

- The Advanced Practioner SNFist Model will improve the Transitions of Care; and therefore, will improve the quality of care given to our SNF patients
- Transitions of Care from the Hospital to the SNF
  - Goal: Decrease the readmission rate to below the National Average
  - Evaluate the patient within one working day of admission
  - Evaluate skilled patients biweekly per regulations
  - Evaluate LTC patients monthly per regulations
  - Evaluate and treat those patients that may have an acute need prior to their next visit
  - Perform a Health Risk Assessment (HRA) once annually if greater than a 30-day stay and within seven days upon admission



## **Quality Outcomes Program**

- Bundled Chronic Disease Metrics
  - Diabetes
  - Adult Prevention
  - Macrovascular
  - Microvascular
- Reductions in Inpatient and ED Usage
- Preventive Services Metrics
  - COPD
  - CHF



## Results have been very positive in all our phased rollouts\*

Health status Diabetes bundle	
Coronary disease bundle	
Preventive care bundle	
Readmissions	
Admissions	
Member/Provider satisfaction	
Total Medical Cost  *All results are measured across the entire population of	patients, not just chronic disease patients

stAll results are measured across the entire population of patients, not just chronic disease patients



## **Diabetes Bundle**

Measures	Quality Standard		
HgbA1C measurement	Every 6 months		
HgbA1C control - Patient Specific Goal	< 7 or 7-8		
LDL measurement	Yearly		
LDL control - Patient Specific Goal	< 70 or < 100		
Blood pressure control	< 130/80		
Urine protein testing	Yearly		
Influenza immunization	Yearly		
Pneumococcal immunization	Once before 65, Once after 65		
Smoking status	Non-smoker		
Patients who receive/achieve ALL of the above	DM Bundle Percentage		



## **Diabetes Process Redesign**

#### Automate

#### Computer/HER:

- Alerts and Reminders As Pre-visit Planning
- Reminder letters CareGaps Outreach

### Delegate

#### **Clerical:**

- Scheduling of Flu/Pneumococcal, Follow-Up Clinic Nurse:
- Immunizations, Lab Testing, Foot Exam Case Manager:
- High-Intensity Coordination/Education

## Incorporate

#### **Nurses:**

- Nurse Rooming Tool, Process Measure BPAs Providers:
- Alerts and Reminders for Complex Decisions

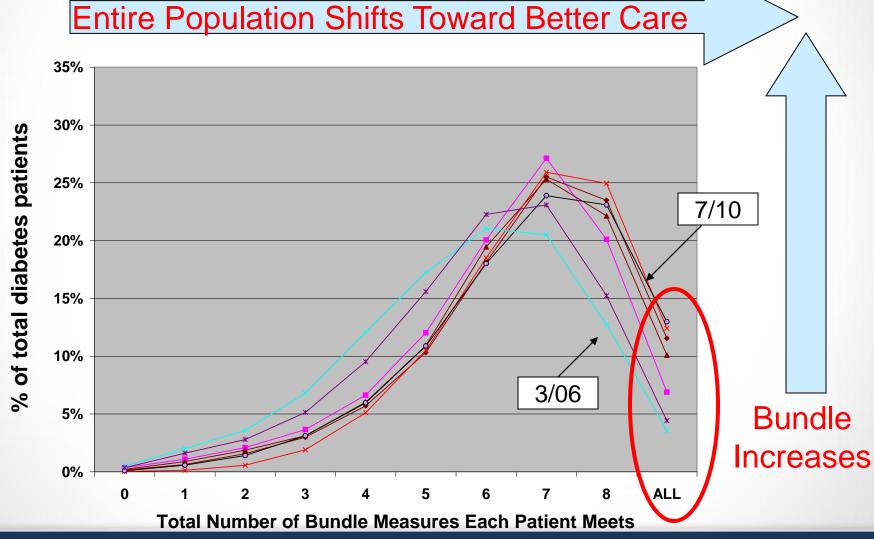
#### Activate

#### **Patients and Families:**

MyGeisinger, Patient Report Cards



Diabetes Bundle Improvement



## **Improving Diabetes Care for 24,749 Patients**

	3/06	3/07	7/10	7/11
Diabetes Bundle Percentage	2.4%	7.2%	12.9%	12.5%
% Influenza Vaccination	57%	73%	75%	77%
% Pneumococcal Vaccination	59%	83%	84%	82%
% Micro albumin Result	58%	87%	78%	78%
% HgbA1c at Goal	33%	37%	52%	50%
% LDL at Goal	50%	52%	54%	55%
% BP < 130/80	39%	44%	54%	57%
% Documented Non-Smokers	74%	84%	85%	85%



### **Adult Prevention Bundle**

- Based on US Preventive Services Task Force (USPSTF)
   Recommendations and 2007 ACIP Immunization Schedule
- Received input from a broad group of primary care physicians from CPSL and GIM and also selected specialists
- Rollout 1/08
- 203,695 Patients
- 66% Of recommended tests performed on these patients
- Initial Adult Prevention Bundle Percentage = 9.2%



Adult P	revention Bundle	
	AGE/SEX	

Male

18-49

See Tobacco Screening Below

Х

X

x (>35)

x (>45)

6

Χ

Χ

Female

x (>40)

x (>21)

x (>45)

x (<26)

x (>45)

9

Χ

X

X

Χ

Recommendation

Mammogram every 2yr 40-49,

Colonoscopy every 10 yrs or

FOBT yearly

Pap every 3 yr 21-64

Discuss prostate cancer

Every 5 years M>35,F>45

Tdap once then Td every 10

years

Non-smoker

Non-smoker

Yearly >50

Once >65

Yearly 18-25

BMI in EPIC

MAXIMUM NUMBER OF BUNDLE MEASURES FOR

EACH AGE/SEX CATEGORY

Every 3 years >65

Every 3 years >45

Assess alcohol intake - Social

**History Completed** 

every year 50-74

screening yearly 50-74

Cancer Screening

**Breast Cancer** 

Cervical Cancer

Colon Cancer

Lung Cancer

Lipid Screening

Tobacco Screening

Infectious Disease

Tetanus/Diphtheria/

Influenza Vaccine

Pneumococcal Vaccine

Chlamydia Screening

Osteoporosis

Substance Abuse

Alcohol Misuse

Diabetes

Obesity

Pertussis Vaccine

Metabolic, Nutritional and Endocrine

Prostate Cancer

Discussion

Cardiovascular Disease

50-64

Χ

Χ

X

Х

Χ

Х

Х

Χ

Χ

9

Male

Female

Χ

Χ

Χ

X

Х

Χ

Х

Χ

Χ

Χ

10

Adult

**Prevention** 

**Bundle** 

Х

X

Х

X

Х

X

X

X

X

X

Х

X

X

X

Over 65

Male

x (< 85)

x (< 75)

x (<75)

Х

Χ

Χ

X

Χ

Χ

X

10

Female

x (<75)

x (< 85)

x (<75)

Х

Χ

Χ

Χ

Х

Х

Χ

Χ

11

### **Improving Preventive Care for 219,389 Patients** 11/07

Breast Cancer Screening (q 2 40-49, q 1 50-74)

Cervical Cancer Screening (q 3 yr Age 21-64)

Colon Cancer Screening (Age 50-84)

Diabetes Screening (Every 3 yr > 45)

Obesity Screening (BMI in Epic)

**Documented Non-Smokers** 

Alcohol Intake Assessment

Prostate Cancer Discussion (Age 50-74)

Lipid Screening (Every 5 yr M > 35, F > 45)

Tetanus Diphtheria Immunization (every 10 yr)

Pneumococcal Immunization (Once Age >65)

Osteoporosis Screening (every 3 yr Age > 65)

Influenza Immunization (Yearly Age >50)

Chlamydia Screening (Yearly Age 18-25)

Adult Preventive Bundle

7/11

31%

61%

71%

66%

77%

87%

90%

97%

79%

72%

87%

60%

37%

73%

91%

9.2%

46%

64%

44%

72%

75%

85%

77%

75%

35%

84%

47%

22%

52%

84%

### Macrovascular

#### **Stroke**

- Non-Bundled Care
- Cumulative risk reduced 13%
- Bundled Care cumulative risk reduced 17%
- 31% better

#### MI

- Non-Bundled Care
- Cumulative risk reduced 25%
- Bundled Care cumulative risk reduced 31%
- 24% better



### Microvascular

### Retinopathy

- Non-Bundled Care
- Cumulative risk reduced 22%
- Bundled Care cumulative risk reduced 30%
- 36% better

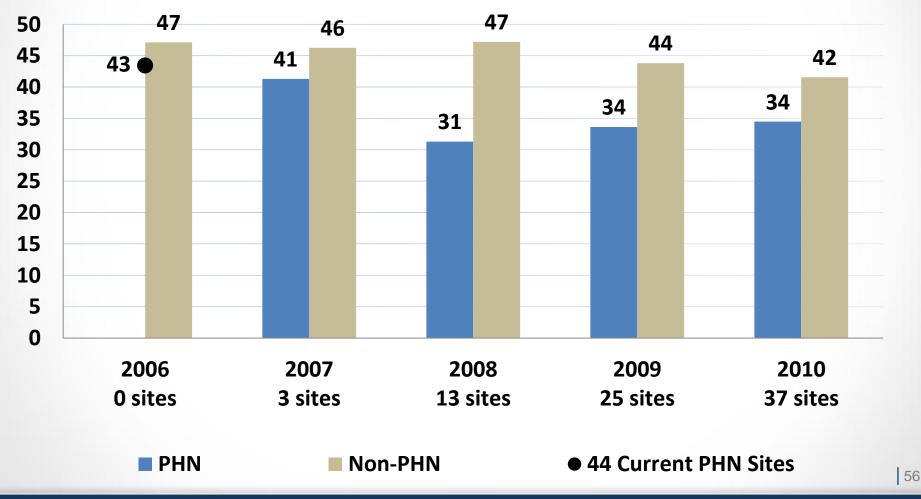
#### **Amputation**

- Non-Bundled Care
- Cumulative risk reduced 20%
- Bundled Care cumulative risk reduced 60%
- 300% better



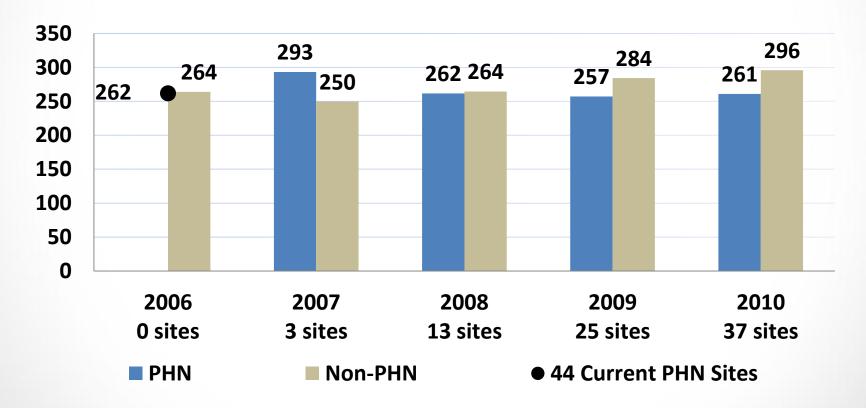
## Readmissions are also lower

#### Risk Adjusted Readmissions/1000



## ER stays flat while unmanaged increases

Risk Adjusted ER Visits/1000 - Medicare



## **COPD Metrics**

#### Phase 1 Medicare

	2006	2007	2008	2009	% Change Baseline - 2009
COPD Phase 1 Medicare OP ER/	440.3	498.1	568.1	485.9	10.4%
COPD Phase 1 Medicare IP Adm	945.0	846.2	844.0	734.0	-22.3%
COPD Phase 1 MedicareIP Meds	142.3	165.0	140.7	97.2	-31.7%

#### Phase 2 Medicare

	2007	2008	2009	
COPD Phase 2 Medicare OP ER/1000	459.1	403.6	479.7	4.5%
COPD Phase 2 MedicareIP Admits/1000	929.4	787.7	876.3	-5.7%
COPD Phase 2 Medicare IP MedSurg Readmi	163.6	103.1	130.5	-20.2%

#### **Phase 3 Medicare**

THE STATE OF THE S						
	2008	2009				
COPD Phase 3 Medicare OP ER/1000	472.9	507.7	7.4%			
COPD Phase 3 Medicare IP Admits/1000	949.5	860.1	-9.4%			
COPD Phase 3 Medicare IP MedSurg Readmits/1000	179.4	127.8	-28.8%			



## **CHF Metrics**

#### **CHF Phase 1 Medicare**

	2006	2007	2008	2009	% Change Baseline - 2009
CHF Phase 1 Medicare OP ER/10	629.9	654.4	836.9	732.1	16.2%
CHF Phase 1 Medicare IP Admit	1,380.5	1,175.4	1,367.0	1,217.4	-11.8%
CHF Phase 1 Medicare IP MedSu	285.9	233.4	239.1	214.4	-25.0%

#### **CHF Phase 2 Medicare**

	2007	2008	2009	
CHF Phase 2 Medicare OP ER/1000	645.9	546.7	558.0	-13.6%
CHF Phase 2 Medicare IP Admits/1000	1,432.8	1,071.3	1,155.6	-19.3%
CHF Phase 2 Medicare IP MedSurg Readm	nits 277.2	149.5	167.4	-39.6%

#### Phase 3 Medicare

- Hade & Midaleal C						
	2008	2009				
CHF Phase 3 Medicare OP ER/1000	563.2	654.7	16.2%			
CHF Phase 3 Medicare IP Admits/1000	1,181.7	1,155.5	-2.2%			
CHF Phase 3 Medicare IP MedSurg Readmits/1000	190.0	139.6	-26.5%			

\*\*\* baseline year

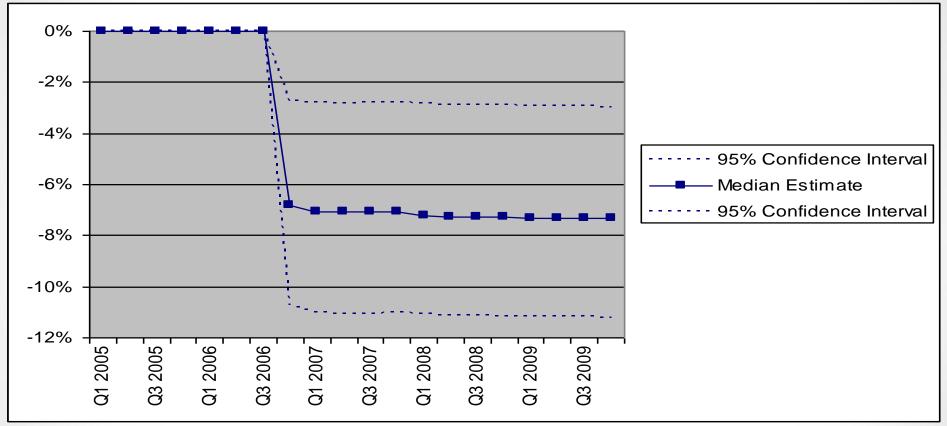


## Value Reimbursement Program

- Practice Redesign: Pay for Performance
  - Geisinger Primary Care Physicians earn 10-20% of salary based on quality performance
  - \$8,000/year available for Diabetes, CAD and Adult Prevention Incentives
- Geisinger Health Plan Patients
  - About 50% cared for by Geisinger Clinic Physicians
  - About 50% cared for by Panel Physician
  - About 30% of Geisinger Clinic patients are GHP
  - HEDIS scores should be a fair comparison

			F	IEDIS 2	2010		
	Cardiovascular Conditions						
			GHP	Clinic	Panel		
	LDL control	69.63%	65.31%	70.58%	60.00%	Statistically Higher	P=0.0278
	BP Control	72.68%	74.58%	83.80%	68.40%	Statistically Higher	P=0.0012
	Beta Blocker	83.83%	100.00%	100.00%	100.00%		
	Diabetes						
	Comprehensive Diabetes Care:						
	HbA1ctested	92.94%	93.05%	95.86%	89.88%	Statistically Higher	P=0.0080
	Lipid control	54.95%	54.48%	57.93%	50.58%	Statistically Higher	P=0.0864
	DiabeticEye	70.79%	67.09%	80.69%	51.75%	Statistically Higher	P<0.0001
	Microalbuminuria	88.27%	89.58%	92.76%	85.99%	Statistically Higher	P=0.0098
or i	Blood Pressure <130/80	42.64%	45.52%	51.38%	38.91%	Statistically Higher	P=0.0087
5T I							

## Cumulative percent difference in spending attributable to PHN



Cumulative percent difference in spending (Pre-Rx Allowed PMPM \$) attributable to PHN in the first 21 PHN clinics for calendar years 2005-2009. Dotted lines represent 95% confidence interval. P = < 0.003



## **Lessons Learned Along the Way**

## It is possible to improve patients' health while reducing costs

- Requires change in primary care delivery model; the change is not easy
  - Needs active, engaged providers
  - Needs active, empowered team
- Transitions of care create specific gaps and opportunities
- Critical to have case manager embedded in primary care site
- Linkage to every system of care needed
- Payer/provider partnership essential to success



## Effective Redesign & Care Coordination Delivers Rapid Impact

Activity	Expected Impact	Time to Impact
Short term effects		
Transitions of Care Management	Reduce Readmissions	3 months
Case management for high risk patients with targeted conditions: DM, HF, COPD	Reduce primary admissions & ED	3 – 6 months
Case Management for other high risk patients	Reduce primary admissions & ED	6-12 months
Pharmacy management	Increase generic use	6 – 12 months
Mid-term effects		
Nursing home management	Reduce readmissions/primary admissions	12 - 18 months
More efficient specialists and ancillary providers	Decrease cost per episode of care	12-18 months
High-end imaging	Reduce unnecessary testing	12 - 18 months
Longer term effects		
Interventions for low risk chronic disease patients: disease registries; chronic disease care optimization	Improved control; avoid complications	2 - 5 years
Preventive care; screening; lifestyle change; wellness	Earlier identification & treatment; decrease incidence of chronic diseases	2 - 5 + years

## PHN brings national attention to Geisinger





denverpost.com



the Boston Globe



REPRINTED WITH PERMISSION

#### The New Hork Times

**Business Day** 

TUESDAY, JUNE 22, 2010

#### Paying to Cut Health Costs

Extra Nurses Help Doctors Keep Patients Out of the Hospital

By REED ABELSON

ike a lot of doctors, Patrick Kilduff has too many patients and too little time. He and the five other physicians in Shavertown, Pa., oversee the care of about 12,000 people, and a typical office visit lasts just 13 minutes.

Because health insurers pay him as Itic as 45 per visit, Dr. Kilduff and his colleagues say they have little choice but to squeeze as many patients as they can into their day. That makes it virtually imposted in the control of the control of the te importance of keeping their blood sugar under control or how to take their medicine. But the insurers' penny-wise approach can lead to as much as \$1 million in hospital bills, if a person with

under-treated diabetes has a heart attack. That is why some of the nation's insurers are now trying to avoid those high medical bills by taking the longer view. They are giving primary care doctors more help— and more money— to take care of the sickest patients and help prevent them from becoming sicker.

Otherwise, insurers know they risk being overwhelmed by rising health care costs as an older, sicker population copes with serious chronic conditions.

with serious chronic conditions.
"The essential business model of medical insurance will have to change," said Dr. Glenn D. Steele Jr., the chief executive of Geisinger Health System, which operates a network of clinics and hospitals in Pennsylvania.

Geisinger is known nationally for its innovative approaches to delivering highquality care at lower cost. It also owns a health insurance plan that covers about 250,000 people — including many of Dr. Kilduff's patients in Shavertown.

Kilduff's patients in Shavertown. As an insurer, Geisinger now pays the salaries of extra nurses in doctors' offices, whose full-time job is to help patients with chronic diseases stay on top of their conditions and, ideally, out of the hospital. The doctors, including Dr. Kilduff, help hire the nurses, who work closely with the doctors to oversee the patients' care.



LAURA PEDRICK FOR THE NEW YORK TIMES Dr. Richard Martin touches base with a patient, Marie Jones, as Mary Solomon, right, a nurse, goes over her health details. Geisinger Health System pays for nurses to manage the care of the sickest patients in hopes of avoiding costly

The nurses make sure patients who need quick appointments are squeezed in, and they alert the doctors to any early inclusations of trouble by keeping in close contact with the patients and looking out

hospital stays.

for the results of patients' lab tests.

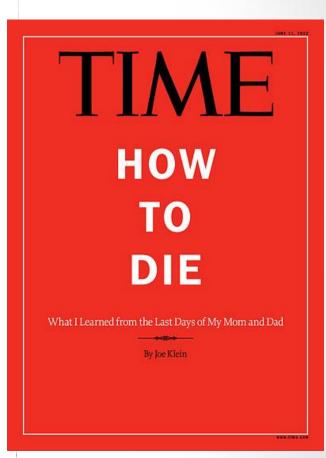
One of Dr. Kildniff's patients, Roee Ann
Cox, 69 years old, began working a few
years ago with a Geistinger-point nurse,
Karen Thomas, to control her diabetes,
Karen Thomas, to control her diabetes,
Karen Romas, to control her diabetes,
Karen Romas, to control her diabetes,
Karen Stone and Stone and Stone
Karen Stone and Stone
Karen St

"You don't always think you should call
the doctor," Ms. Cox said. But she has no
qualms about reaching out to the nurse.
The initiative is part of an overall effort

a so-called medical home — the place where patients' care is carefully coordinated by a doctor and staff, with particular attention given to the chronically ill.

Geisinger began experimenting with this approach three and a half years ago and now uses it in 37 practices, most of which are part of its own network of doctors' offices.

But five of the doctors' offices, including Dr. Kilduff's, are independent practices that accept Geistinger as one of several insurance plans. Under the arrangement with the outside doctors, Geistinger pays for the nurse and shares with the doctors any savings they can so far, Geistinger says it is pleased with the early results. In an unpublished review of 2008 data, Geistinger experienced



The Philadelphia Inquirer





### **Healthcare Is Complex Bundle of Data**

"The data speaks for itself, but sometimes you have to encourage it to speak"

..and that's the rest of the story

Unintended consequences

You don't know what you don't know

# AMGA-Press Ganey Coordinated Care Survey Pilot Results

Patients love their providers	Тор Вох	Top Two
Section Roll Up	55%	81%





Patients don't feel their care is well coordinated	Тор Вох	Top Two	
Section Roll Up	30%	42%	

COORDINATED CARE	Top 2 Box Percent		V
	Geisinger	All	Variance
My Provider's clinic makes it easy for me to access my personal health record online	66.67%	50.76%	15.91%
My Provider's clinic makes it easy for me to access lab/test results electronically (email, internet, etc)	72.09%	55.42%	16.67%
When I was directed to visit (walk-in, appointment, etc.) another health care facility, I was given clear written instructions	78.31%	69.61%	8.71%
THE PROVIDER AND YOU	Top 2 Box Percent		
	Geisinger	All	Variance
My Provider does a good job helping me understand my health condition	90.00%	94.79%	-4.79%
If needed, my Provider helps me understand any treatment (risks, benefits, etc.)	85.85%	93.20%	-7.35%
My Care Provider encourages me to participate in any treatment decisions	80.39%	89.19%	-8.79%

COORDINATED CARE	Top 2 Box Percent		
	Geisinger	All	Attendees
My Provider's clinic makes it easy for me to access my personal health record online	66.67%	50.76%	
My Provider's clinic makes it easy for me to access and lab/test results electronically (email, internet, etc)	72.09%	55.42%	
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THE PROVIDER AND YOU	Top 2 Box Percent		
	Geisinger	All	Attendees
My Provider does a good job helping me understand my health condition.	90.00%	94.79%	
If needed, my Provider helps me understand any treatment (risks, benefits, etc.)	85.85%	93.20%	
My Care Provider encourages me to participate in any treatment decisions	80.39%	89.19%	

## Utilizing Patient Reported Data

20% of respondents say they have financial concerns that prevent them from taking proper care of themselves



20% of respondents say they have personal concerns that prevent them from taking proper care of themselves





90% of respondents say they take an active role in improving my health (e.g., diet, exercise, getting enough sleep, etc.) My Provider does a good job helping me understand my health condition

Provider helps me make better healthcare decisions

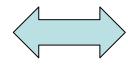
When Provider speaks with me, it is clear he/she is concerned about my emotional needs

If needed, my Provider helps me understand any treatments (risks, benefits, etc.)

Provider gives me clear instructions on how to care for myself

If my Care Provider recommends I see a specialist/another doctor, she or he explains the reason

Before ordering any medical tests, my care provider discusses these with me



CGCAHPS
question:
Rate
this
physician
from
1 - 10

My Provider's clinic provides me a way to get answers to my questions even when the office is closed

The online tools that my Provider's clinic makes available to me meet my needs

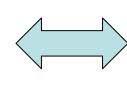
My Provider's clinic makes it easy for me to access my personal health record online

When I first made contact with the other facility, the person that greeted me made me feel that they understood why I had made contact

When my visit(s) were complete, I was advised that my results would be shared with the clinic that had made the referral

My health care is well-coordinated between all of the providers who care for me

My Provider and care teams involved with my care seem to be aware of what other health professionals have done for me



CGCAHPS
question:
Rate
this
physician
from
1 - 10

Care Staff helps me understand how to handle health problems that may arise between visits Care Staff makes me aware of any additional resources available to help me improve my health Care Staff encourages me to contact them if I have questions between my scheduled visits Care Staff helps me understand how to handle health problems that may arise between visits Before ordering any medical tests, my care provider discusses these with me My Provider does a good job helping me understand my health condition If needed, my Provider helps me understand any treatment (risks, benefits, etc.) My Care Provider encourages me to participate in any treatment decisions If my Care Provider recommends I see a specialist/another doctor, she or he explains the reason Provider helps me make better healthcare decisions Provider gives me clear instructions on how to care for myself When Provider speaks with me, it is clear he/she concerned about my emotional needs My Provider does a good job helping me understand my health condition

Before ordering any medical tests, my care provider discusses these with me

If needed, my Provider helps me understand any treatment (risks, benefits, etc.)

In the last 12 months, how often did this provider show respect for what you had to say?



## **QUESTIONS?**

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