

ProvenCare Perinatal

GEISINGER
HEALTH SYSTEM

High-Performance Health System:

A health system that is designed to achieve:

- High **quality**, safe care;
- **Access** to care for all people;
- Efficient, high **value** care
- **Capacity to improve**

The Commonwealth Fund Commission on a High Performance Health System

“We are confident that this higher level of care cannot be achieved by further stressing current systems of care. The current system cannot do the job. Trying harder will not work. Changing systems of care will.”

Medicine, T. I. (2001). *Crossing the quality chasm: an new health system for the 21st century*. . Washington, D.C.: national Academy Press.

ProvenCare Definition

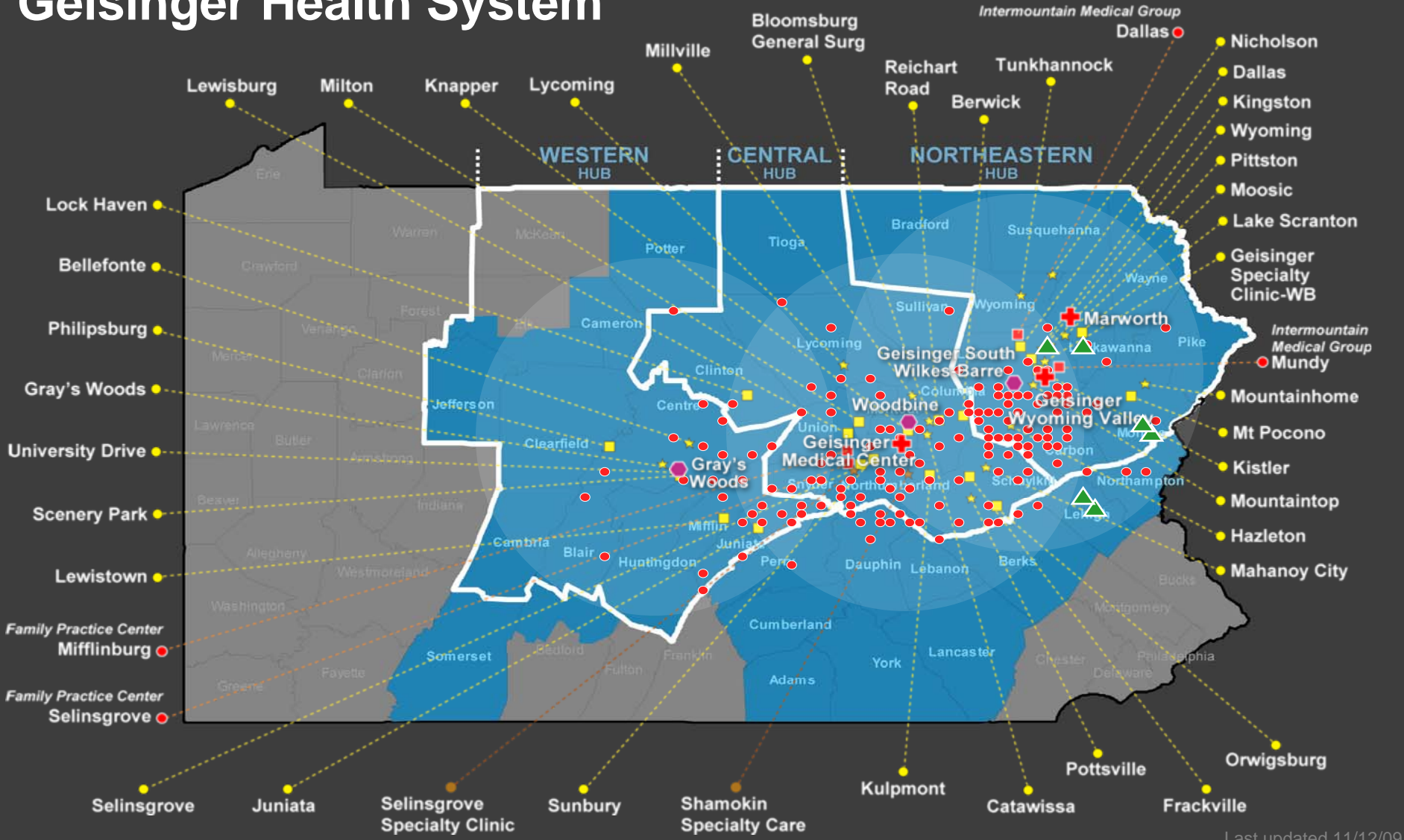
- Concept: Link evidence-based practices to a continuum of care in a subclass of patients and reliably give that care **to each and every patient**
- Purpose: Fully optimize patient outcomes

ProvenCare Perinatal Context

- 5,000 Pregnancies per year
- 4,500 + deliveries per year
- 75 Clinicians (30 MD's; 12 Residents; 12 Midwives; 14 NP's; 7 PA's)
- 24 Clinic Sites
- 4 Hospitals (2 non-Geisinger)



Geisinger Health System



Last updated 11/12/09

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|---|---|-----------------------------------|
| Geisinger ProvenHealth Navigator Sites | Geisinger Inpatient Facilities | Careworks Convenient Healthcare |
| Contracted ProvenHealth Navigator Sites | Ambulatory Care Facility | Non-Geisinger Physicians With EHR |
| Geisinger Medical Groups | Geisinger Health System Hub and Spoke Market Area | |
| Geisinger Specialty Clinics | Geisinger Health Plan Service Area | |



Perinatal ProvenCare® Goals

- 103 Discrete evidence-based elements of care are incorporated, measured and tracked for compliance
- Redesign, from the ground up, all aspects of provider workflow
 - Drive fundamental efficiency improvements
 - Increase patient safety and process reliability
 - Reduce/eliminate documentation redundancy
 - Streamline patient education and cut costs
- Seek observable reductions in C-section rates and premature births

Perinatal



1st Trimester
82-88

2nd Trimester
56

3rd Trimester
70-140

Delivery
6

Postpartum
10



224-300
Steps

Payer key business objectives

- Support the reengineering of care to deliver more **value**
- Align reimbursement incentives with new approach
- Build a business case to ensure sustainability

Reimbursement Aligned via “Warranty Approach”

- GCE accepts risk via a global payment for all related services and follow up care
 - Technical and professional
 - Surgeon, consultations, supporting clinicians
- No charges for related complications
- Eliminates perverse incentives

A reasonable approach for GHS

- Only Related Complications:
- Only for care delivered at GCE facilities or by GCE providers
 - Does not include care provided by non-GCE providers except for independent physicians at GCE facilities

A win/win business case

- GHP and GHS share savings from care improvement
- GHP gets better cost structure and outcomes
- GHS get better outcomes and improved cost of care
- GHS gets more volume over time

High Value care yields a real win/win/win/win business case

- Patients get improved outcomes
- Employer gets healthier employees and lower premiums
- GHP gets more members
- GHS gets more volume

Current Status: Process Reliability

Best Practice Measures and/or process steps	Pre-ProvenCare % compliance (N=101)	Post-Implementation % compliance (N=1010)	Chi-square p-value
Diabetes Bundle (All-or-none)	30.9	79.0	<0.01
Preeclampsia Bundle (All-or-none)	42.6	67.8	<0.01
Postpartum Visit Bundle (All-or-none)	61.6	97.6	0.01
Smoking cessation intervention	45.3	88.5	<0.01
Intervention for obesity offered	3.5	77.5	<0.01
Rh blood factor initial screen and Rhogam administration	91.5	100.0	0.53
Rubella sensitization initial screen and MMR administration	88.1	98.9	0.43
Postpartum depression screening	n/a	100.0	n/a

Clinical Outcomes: Perinatal

- Reduced C-Sections by 32% at Geisinger Wyoming Valley Medical Center (Jan 2008-Sept 2010)
- 23% decrease in NICU admission rates (Jan 2007-Sept 2010)
- Decreased incidence of newborn admissions related to influenza, birth-3 months
- Decreased severity of postpartum depression through appropriate identification and action



GHS PSI 17 Birth Trauma Rates: July 2007-March 2011

GWV	Population of Babies*	# of birth trauma cases	Birth Trauma Rate based on PSI 17 definition (per 1000 babies)	Chi-square p-value (compared to baseline)
July07-June08	1010	2	1.98	baseline
July08-June09	1196	2	1.67	0.865
July09-June10	1309	1	0.76	0.419
July10-March11	972	1	1.03	0.586

GMC	Population of Babies*	# of birth trauma cases	Birth Trauma Rate based on PSI 17 definition (per 1000 babies)	Chi-square p-value (compared to baseline)
July07-June08	1764	13	7.37	baseline
July08-June09	1755	5	2.85	0.06
July09-June10	1713	8	4.67	0.3
July10-March11	1230	3	2.44	0.069

GHS	Population of Babies*	# of birth trauma cases	Birth Trauma Rate based on PSI 17 definition (per 1000 babies)	Chi-square p-value (compared to baseline)
July07-June08	2774	15	5.41	baseline
July08-June09	2951	7	2.37	0.064
July09-June10	3022	9	2.98	0.15
July10-March11	2202	4	1.82	0.041

*babies born within a GHS facility

The 2004 National Birth Trauma rate for the PSI definition: 2.31 per 1000 births

These numbers include all births at GHS, regardless of where prenatal care was rendered. These numbers are the most accurate reflection of our provider's birth trauma rates.

Current Status: NICU Admission Rates

NICU Admission Rates and LOS for Pre and Post-ProvenCare Implementation

Patient Group	GHS NICU admits	Total GHS deliveries	% admitted to NICU	Average LOS
Pre-ProvenCare	427	4435	9.6	18.7
Post-ProvenCare	321	4176	7.7	16.8

Chi square p-value for NICU admission: <0.01

Definitions and inclusion criteria

- All patients are classified as "GHS patients." This means the mothers of the infants were seen for at least 13 weeks prior to delivery by a GHS provider and delivered in a GHS hospital.
- All patients were admitted to the NICU within 24 hours of birth.
- Pre-ProvenCare represents the period from January 2007-March 2009 (27 months)
- Post-ProvenCare represents the period from April 2009-Dec 2010 (21 months)

Step 1

- Define the episode length
 - Pre-operative Period
 - Varies by ProvenCare module – typically 30 days
 - Post-operative Period
 - Varies by ProvenCare module – typically 90 days

Step 2

- Define the episode scope
 - The process will begin with the 1st prenatal clinic visit and end with the 1st postpartum clinic visit
 - Patients entering the system after the 1st prenatal clinic will be included in ProvenCare from the point of entry into the system
 - Patients exiting the system prior to the 1st postpartum clinic visit will be included in ProvenCare until the point of exit

Step 3

- Create preliminary claims data set
 - Includes
 - All services related to the surgery admission
 - All services during pre-operative period
 - All services during post-operative period
 - Apply Exclusions

Step 4

- GHP - Create preliminary Episode Experience Summary and Code Review pivot tables
 - Pre-operative
 - Procedure code review
 - Professional and Outpatient services only
 - Post-operative
 - Inpatient Readmissions
 - Diagnosis code review on historical services to identify routine follow-up and complications
 - Medical review on remaining inpatient claims to capture those not identifiable by diagnosis codes
 - Outpatient and Professional
 - Diagnosis codes identified through review
 - Cardiac rehab identified by procedure codes 93797, 93798 and 93799

Step 5

- GHP - Creation of Final Episode Experience Summary
 - Filter the potential claims set to create a refined claims set with services related to the surgery and re-run the Episode Experience Summary
 - Establish **pre-operative code list** (Outpatient and Professional only)
 - Establish **post-operative related diagnosis code list**
 - GHP estimates the **global package rate** based on Final Episode Experience Summary

Step 6

- GHS
 - Reviews Final Episode Experience Summary and predicted trends to develop a **global package rate**
 - Creates **Inclusion Matrix** that defines which related services are to be included based on the provider of service

Step 7

- GHS and GHP
 - Reconcile and negotiate final **global package rate**
 - Finalize **Inclusion Matrix**
 - Execute Contract

Post Implementation Analytics

- GHP - Analyze claims data for ProvenCare® Episodes
 - Take base period and trend forward with projected cost of X
 - Projected cost compared to what it would have been if it wasn't paid at **global package rate**
 - Savings between old method compared to new **global package rate**

Financial Results: Perinatal

	Base Line (FY2009)	Look Back (FY2011 Run Rate)	Variance
Cases	2,803	3,064	261
LOS	2.82	2.74	(0.08)
CM Per Case	2,997	2,946	(51)
Net Revenue per Case	7,025	7,016	(9)



Thank you...Questions?