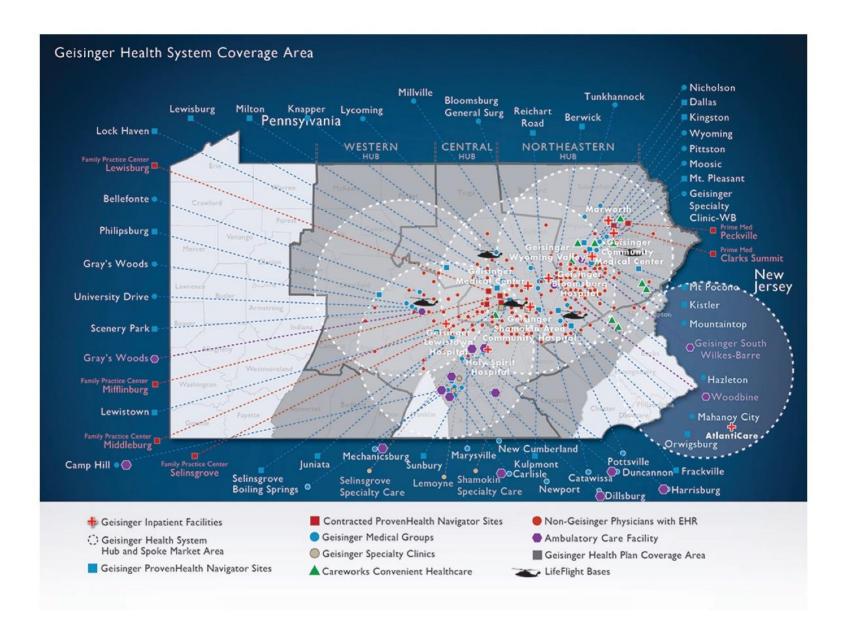


Community Health Initiative

Andy Faucett, MS, LGC – Geisinger Health System IOM Roundtable on Translating Genomic-Based Research for Health November 19, 2015

wafaucett@geisinger.edu geisinger.org/genomics

Geisinger, Central PA and New Jersey



Research Strategic Vision 2010

- Vision: Personalized Health Care
- Emphasis on genomics
- Board approved 10 year Vision for Research that translational research is part of, not separate from, Clinical Medicine.

2014 Research Vision Update

- Learning Health Laboratory, ... a continuous cycle of integrated innovation, implementation, assessment and reengineering in all aspects of the clinical and research mission.
- Embrace engagement of and partnership with Geisinger patients and others in the Geisinger community as fundamental ... we learn from every patient and patient encounter.

"Geisinger is as close to Iceland as you'll find in the United States"- Glenn Steele

Attractive features for community engagement and longitudinal, genomic medicine research and implementation

- Large, stable population >2.5 M people (>700K active patients) with many 3+ generation families
- Strong and trusting relationship between patients and Geisinger
- Integrated healthcare delivery system
- Longstanding EHR and comprehensive clinical data
 - Epic implementation from 1996 (2nd or 3rd customer)

Engaging the Community

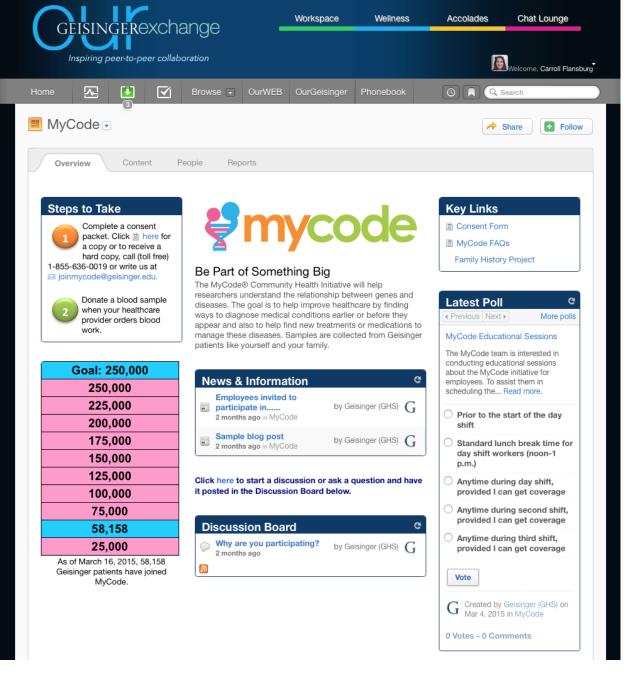
- Focus groups in 2006 prior to MyCode launch
- Focus groups in 2012 prior to planning Returnof-Results (eMERGE)
- Commitment to regular updates
- Employee campaign
- Ethics Advisory Board

Focus Groups / Return of Research Results

- 6 focus groups main campus & remote
- 93 participants 57% F, 43% M
 - (Ages match biobank participants)
- 49.5% GHS patients for 20+ years
- 85% receive majority of care at GHS
- Focus group discussion
 - Pharmacogenomics
 - Recessive Carrier
 - Increased Risk for Prevent /Treatable condition
 - Increased Risk for NON Prevent/Treatable condition
 - Genetic changes that we currently do not understand

What Focus Group Participants Said

- Wanted ALL results
- Results should be returned to healthcare provider and participant (most preferred same time)
- Geisinger should develop educational materials and expert support system
- Results should be put in EHR



Employee Campaign

Two Goals

- All employees know basics of campaign and where to refer
- Employees have opportunity to participate

MyCode® Community Health Initiative: An Ethics Advisory Committee

• Kevin T. FitzGerald, SJ, PhD, chair

Jesuit priest, PhDs in molecular genetics and bioethics, Georgetown faculty in oncology and bioethics, former member of the Secretary's Advisory Committee on Genetics, Health & Society (SACGHS)

Kyle Brothers, MD, PhD

Pediatrician with research interests in childhood obesity, genomic research and clinical use of genomic data; trained at Vanderbilt, now on faculty at University of Louisville, lead publication of eMERGE paper on consent for children

Joan Scott, MS, CGC

Certified genetic counselor, Formerly with the National Coalition for Healthcare Professional Education in Genetics (NCHPEG) and the Genetics and Public Policy Center, now at Health Resources and Services Administration [HRSA]

Sylvia Mann Au, MS, CGC

Certified genetic counselor, State Genetics Coordinator for Hawaii Department of Health, and member of SACGHS

And 4 Geisinger patients!

Developing the MyCode® Consent

- Critical Features
 - Re-contact
 - Longitudinal EHR data
 - Longitudinal samples
 - Return of results
 - Placement of results in EHR
 - Online consent
 - (approved, waiting for EPIC integration)
- Version #26
 - Need to get institution & IRB talking

Engaging Providers

- Return of Results Oversight Committee
- Presentations to clinical leaders
- Regional Strategies
 - Genetic Counselor
- Geisinger GenomeFIRST symposia
 - Familial Hypercholesterolemia
 - BRCA breast / ovarian cancer
- GOALS courses
- Modify ROR based on real-time feedback

"Make My Hospital Right – Make It the Best" – Abigail Geisinger

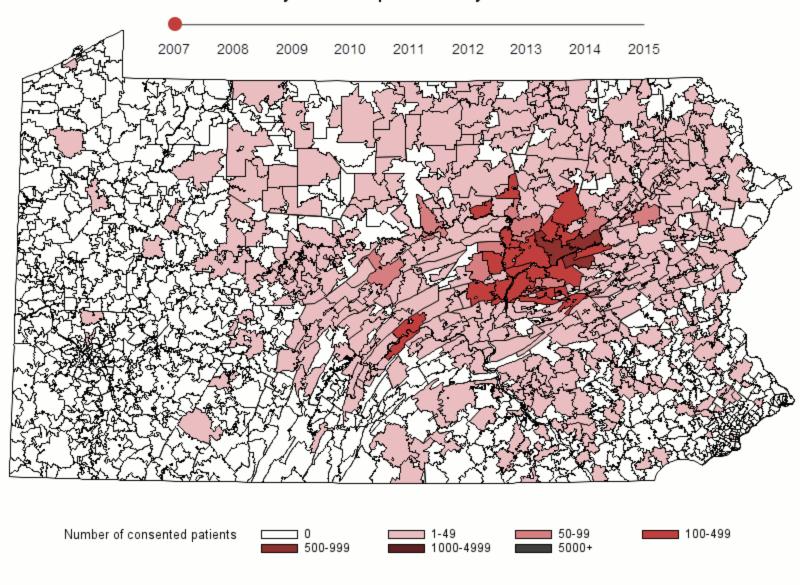
- Consistent message from participants and providers
 - "Geisingerize" the program
 - Start with the national recommendations
 - Geisinger clinicians and researchers need to make final decisions
- Gatekeeper critical to participation



History:

- MyCode® began in 2006
- High consent rate 85%+
- Geisinger / Regeneron collaboration
- Biobank CLIA certified
- Current Enrollment 98,323 (88,674)
- Current WES 52,157 (44,084)
- Max Consenting per week 1,000
- Sequencing capability per week 1,500
- Enrollment Goal250,000

MyCode Expansion By Year



Geisinger Cohort Value

- Snapshot of biobank data
 - 11.96 Median years of EHR data
 - 47 Median number of clinical encounters
 - 455 Median number of lab test values
 - 94 Median vital measurements
- Geisinger Health Plan (GHP) sweet spot
 - 2/3 GHP coverage at some point
- Large families
 - For every result, expect 6-10 1st degree relatives