Developing a Population Based Care Model for Heart Failure

Accountable Care Organization Perspective

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November 2018

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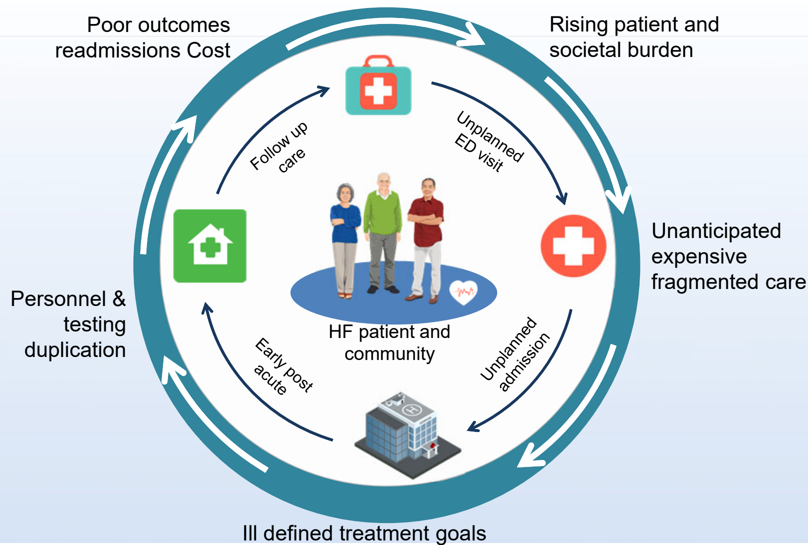
Wrapped in Vicious Cycle of Heart Failure



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The Squeeze

- Macro level – Industry wide Squeeze on unit reimbursement has accelerated VBP models
- System level - Operating Margins for integrated delivery systems are narrowing and in decline
- Provider level - Year over year decline in provider direct margins are resulting in rapid increases in ACOs and VBP contracts

Now us!

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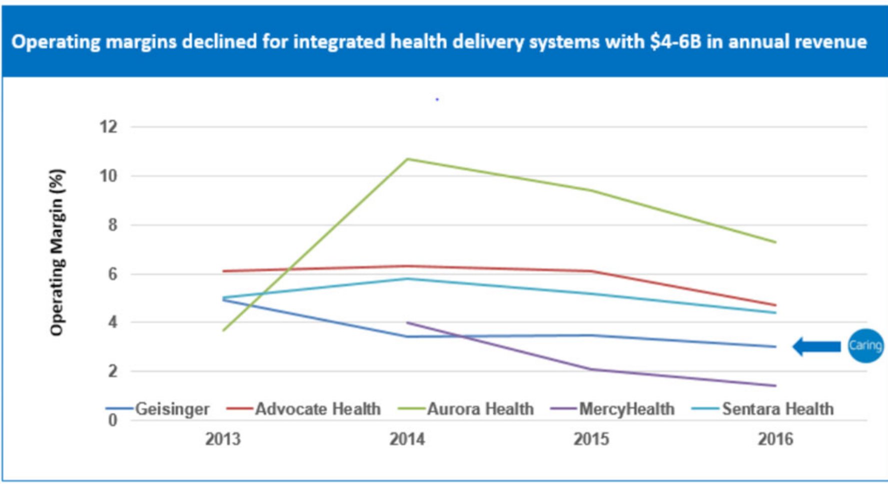
Operating Margins for Integrated Health Delivery Systems



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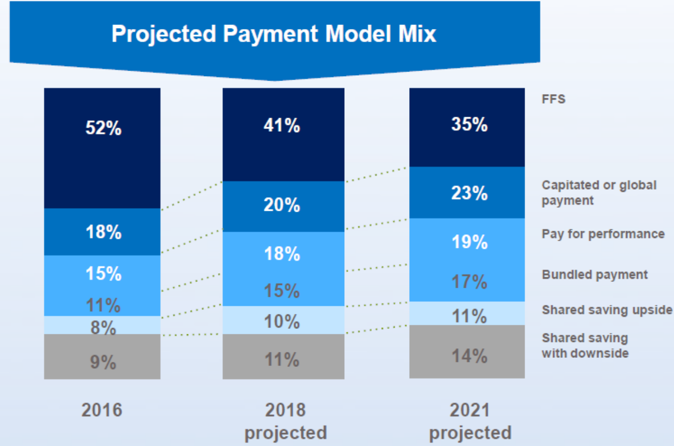
The Industry wide squeeze on unit reimbursement has accelerated the shift toward VBP models



Source: *Journey to Value: The State of Value-based Reimbursement in 2016*; conducted by ORC International and commissioned by McKesson.

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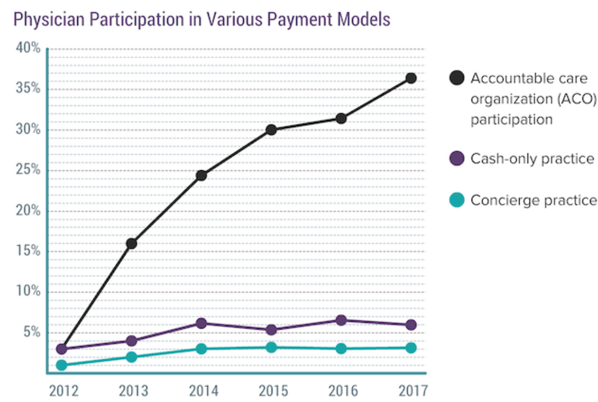
Physician Participation in Payment Models



Medscape Physician Compensation Report, 2017

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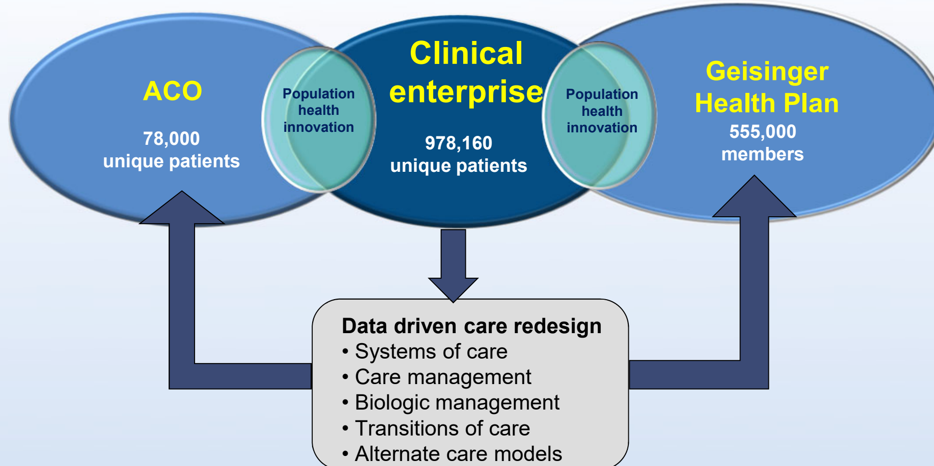
Leveraging the partnership between payer and provider



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From challenge to opportunity

Medicare medical costs and gaps in care remain

CY 2017 Medicare experience	Medicare Advantage book of business	Geisinger at Home (GaH) population	Medicare Advantage minus GaH
Admissions	276/1000	**926/1000**	187/1000
ED visits	486/1000	**1184/1000**	370/1000
Readmission rate	15.4%	**16.3%**	14%
PMPM	$1038	**$2742**	$829

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The Challenges

Significant efforts have been focused on improving health:

- ✓ Specialty Designed Primary Care Delivered Care
- ✓ Hospital TOC
- ✓ Post-acute network redesign
- ✓ Best practice pharmacy management

Care redesign

- Access
- Visit approach
- Quality
- Patient experience
- Staff experience

Care management expansion

- Primary Care
- Emergency Department

Specialty integration

- Hospital transitions
- Heart Failure
- Chronic pulmonary disease
- Biologics

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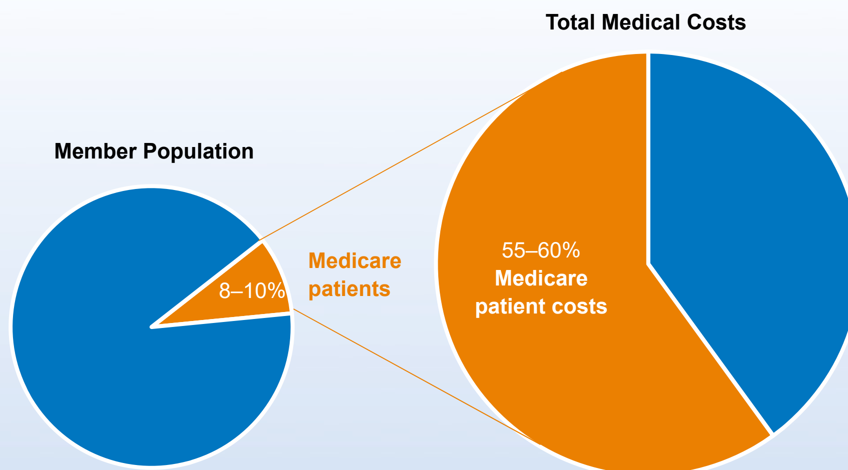
Significant opportunity remains

Small portion of patients drive majority of medical costs



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The Recipe for Achieving Success

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New Model of Machine Learning to Identify High Risk Patients

1-year Survival

- 21,676 HF patients defined using eMerge:
  - 11,327 dead (training set) with 44,656 echocardiograms
  - 10,349 alive (prediction)

6-month Heart Failure Admission

- 9,801 patients with 36,153 echocardiograms
- 2,406 admissions

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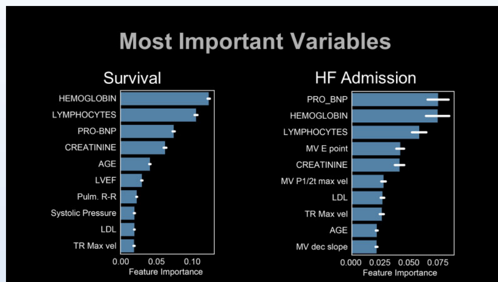
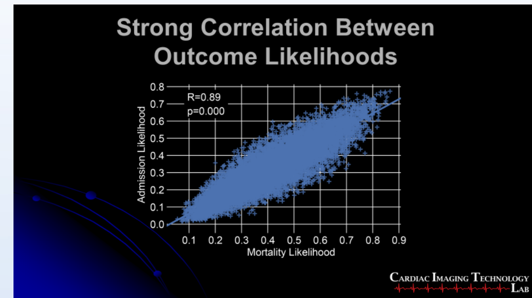
Validated Machine Learning Risk Model in Heart Failure





N = 21,676 (10,349 alive patients)

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ED

- Volume management
- Disposition management
- Mobile integrated health (community paramedicine)

Hospital Milestones

- Respiratory therapy-led Pre-DC Volume assessment
- Blood conservation-led Anemia optimization
- Pharmacist-led Medication reconciliation
- Physician-led Goals of Care
- EF + Utilization guided Advanced heart failure team consultation

Community

- Volume assessment and algorithm = Community coach to Case manager function
- Guideline directed medical therapy = MTDM Pharmacist program
- High needs- High Costs Patient = Geisinger at Home
- Heart Failure Team support = Immediate Access clinic + Paramedicine program

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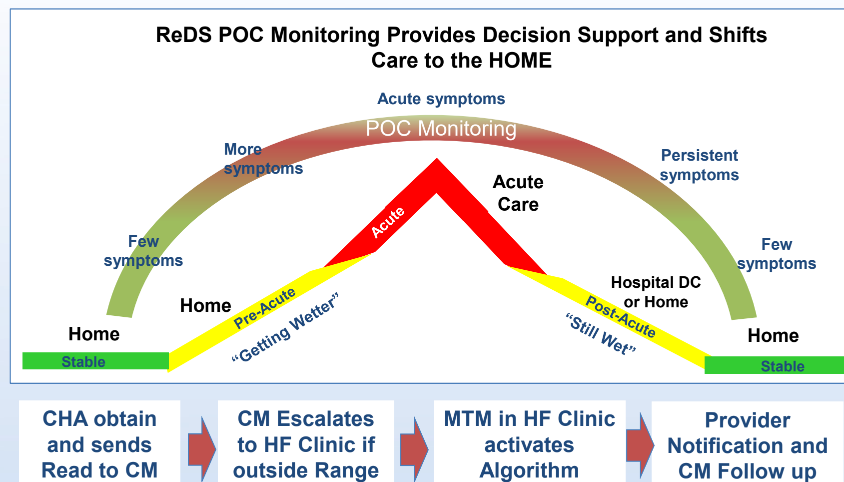
Surround Heart Failure with POC volume Monitoring



CHA obtain and sends Read to CM → CM Escalates to HF Clinic if outside Range → MTM in HF Clinic activates Algorithm → Provider Notification and CM Follow up

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Concept adapted from WT Abraham, OSU

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About Geisinger at Home

- Model of care with team continually innovating to take better care of patients at home
- Patients identified by paid claims and provider referrals Planning began in Winter 2017, First patient seen in April 2018 Over >1000 patients seen. Plans to manage 5000 by Summer 2019
- Three predominant patient types benefit from the following:
  - medically complex: clinical decision making by providers and care team
  - frail elderly: care coordination (CM) and medication management (MTM)
  - high social determinant of health (SDOH) needs: CHA and Social Worker
- Focus on disease burden capture and comprehensive management, care coordination, acute care, behavioral health, social work and palliative care
- Early results show reduced ED visits (56%), reduced hospitalizations (31%)

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Which individuals are we focused on?

Who are we focused on?	How are we identifying them?
Multiple chronic conditions and high utilization	Proactive identification from claims analysis
Palliative care or advancing illness	Provider or family referral, claims
High risk hospital or emergency department utilization	Transitions of care

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Summary

- Heart Failure is a priority at every level of the organization
- Identification of highest risk heart failure patients
- Developing integrated team and capabilities
- Segmenting population to deploy proven therapies
- Therapies include volume, disease and advanced illness management
- Hospital metrics have now largely been replaced by population metrics.

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