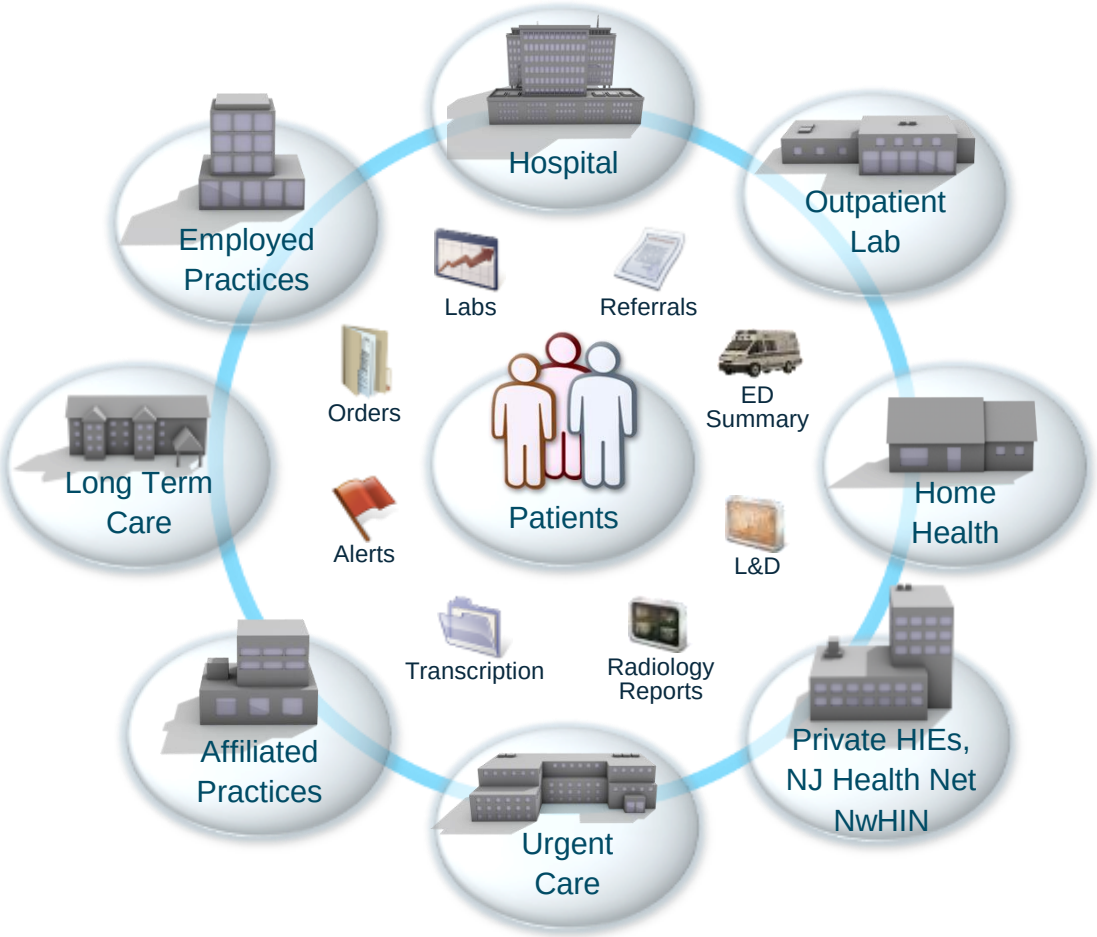
Population Health Management – Implications for HIE Strategies

Inspira Health Network

HIMSS DELAWARE VALLEY Chapter

Start of Care Coordination - HIE



- Data delivery via portals and two way EMR exchange
  - Clinical results
  - Administrative data
- Workflow within the exchange
  - Secure, online collaboration
  - Referrals
  - Care transitions
- Program support
  - Community outreach and provider alignment
- Analytics
  - Utilization

HIMSS DELAWARE VALLEY Chapter

Population Health

- **Defined as the management of health outcomes of an entire group of individuals**
  - Systematically addresses the preventive and chronic care needs of every patient within the defined “group”
  - Redefines healthcare as an activity that encompasses far more than sick or episodic illness care. Includes people’s healthcare needs, risks and costs
  - Goal of population health management (PHM) is to keep a patient population as healthy as possible by modifying the factors that make people sick or exacerbate their illnesses.
  - Requires the capability to minimize the need for expensive interventions such as emergency department visits, hospitalizations, imaging tests, and procedures to lower the total cost of care.
- **Requires a group of providers willing and capable of accepting accountability for the total cost and quality of care for a defined population**
  - Requires a transformation of the healthcare delivery system

Source:Siemens 2013

Getting Started with Population Health

Create list of patients by:

- ✓ Hypertension
- ✓ Diabetes
- ✓ Not on Statin
- ✓ Controlled LDL
- ✓ Smokers
- ✓ Etc.

**** Know the answer to questions like this: ****

What percentage of patients in your plan, practice, panel etc. with Diabetes have LDL controlled??

HIMSS DELAWARE VALLEY Chapter

Population Health Drivers

- **Patients and Population**
  - High-risk patients with multiple chronic conditions served by multiple clinicians and practices with minimal continuity across care plans.
  - Health Literacy, advancing age, lack of family support, variation in community services
  - High avoidable readmission rates; avoidable IP and ER utilization; waste and inefficiency
- **Reimbursement and Reform**
  - Readmission penalties. Bundled payments. Declining reimbursements.
  - Providers getting increasing emphasis on providing health care quality and controlling costs. Providers with razor-thin margins are under financial pressure. They must do more with less.
  - Wide variety of integrated care models and performance based contracts.
  - Evaporating margins and reduction in staffing
- **Technology and Regulatory Drivers**
  - Consolidation, mergers and acquisitions. Increased demand for clinical integration with provider market shifting due to changing reimbursements.
  - Lack of interoperability across legacy platforms and multiple EMRs in integrated systems. Fragmented health information disrupts continuity of care, jeopardizing quality and increasing costs
  - Need for a solution to help manage through consolidation and integrations. Want ability to move information in both directions and be able to apply the information at point of care decisions.

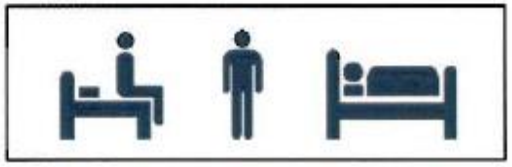
HIMSS DELAWARE VALLEY Chapter

Source:Siemens 2013

Biggest Mistakes Made in Population Health Arena

1

CREATING A SINGLE CARE MODEL FOR ALL



Targeting all resources to all patients unnecessary, wasteful

2

SEGMENTING CARE BY PAYER TYPE

Risks provider resistance, discomfort; does not allow for appropriate resource allocation

3

FOCUSING EXCLUSIVELY ON HIGH-RISK PATIENTS

High-risk patient care management a starting point, not the end state

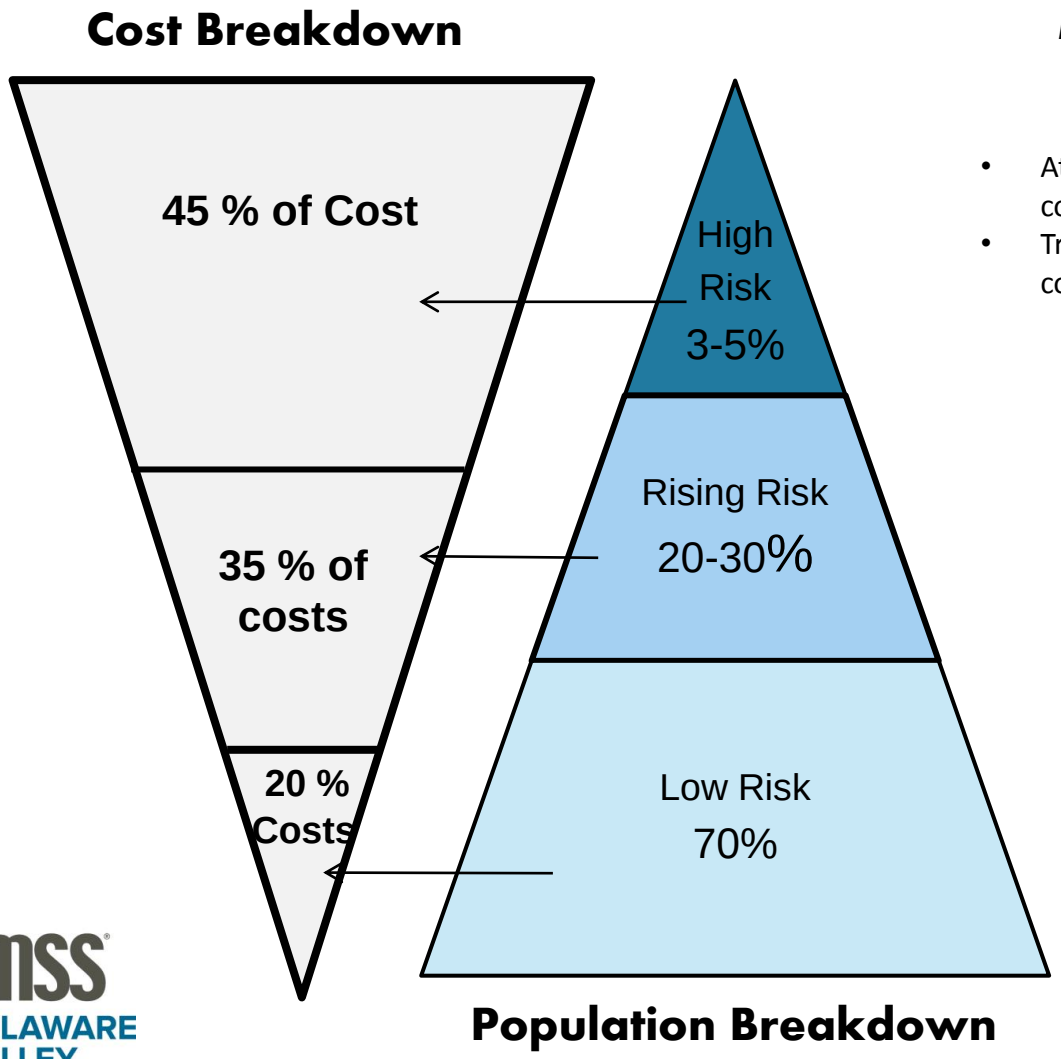
HIMSS DELAWARE VALLEY Chapter

Population Health Challenges

- **Patient Identification and Prioritization Difficulties**
  - Challenge identifying patients across sites of care, providers
  - Confounded by insufficient data, non-clinical patient factors
  - EMRs do not focus on organizing information relevant to Care Management
- **Patients with Complex Needs. The "tyranny of the few".**
  - Care management challenged with both low-risk and high-risk patient needs
  - Key support roles such as pharmacy or behavioral health underutilized
  - High-risk patients served by multiple clinicians and practices; may have minimal continuity across care plans
- **Silos of Incomplete and Disorganized Information**
  - Lack of universal interoperability, multiple systems, multiple data sources
  - Information is not real time or predictive enough to be impactful
  - Patients do not know how to be proactive to communicate with care team

Source:Siemens 2013

Managing Three Distinct Populations



Management Strategies

High Risk

- At least one complex illness, multiple comorbidities, and psychosocial problems
- Trade high-cost acute care services for low-cost care management

Rising Risk

- Multiple risk factors that could push them into the high-cost category if left unaddressed
- Avoid unnecessary spending and keep these patients from becoming high-risk
- Manage these patients in enhanced primary care

Low Risk

- Healthy or have a well-managed chronic condition
- Looking for convenient access to services they need
- Keep the patient healthy
- Maintain their loyalty to the system

HIMSS DELAWARE VALLEY Chapter

Population Health – Strategy

- Build an infrastructure to effectively manage population health
- Connect high-risk patients with dedicated care management team that coordinates across the entire healthcare environments to reduce the total costs of care
- Manage rising-risk patients in a medical home model and develop multiple ways of working with these patients to avoid unnecessary, higher cost spending
- Establish easy access to care for low-risk patient management with a focus on keeping patients healthy and within our health network

Population Health Management Requirements

Requires the transformation from "delivering and managing services for patients"……. to "managing the quality and cost of a population"

Re-engineering of Care Management

- Targeted, Intensive & Preventive
- Embedded CM staff
- Use of Care Teams
- Integrated with Community Resources

Advanced Analytics & Intelligence

- Algorithms linked to EBM
- Stratification by risks & conditions
- Alerts, messages highlighting gaps, preventive care and appointments
- Early warning triggers for non-compliance
- Track progress on quality metrics and key outcomes

Longitudinal Management across Continuum

- Effective management of acute episodes, chronic conditions, preventive, wellness and end of life
- Include pre-acute, post acute and readmission risk
- Manages across silos, providers and settings

Facilitated and Ensured Access to Primary Care

- Extending office hours, weekend access
- Technology enabled access
- After hours support

Personalized Interventions

- Engage patients
- Promote personal accountability
- Health Coaching; Chronic disease self management
- Real time, patient centric interventions

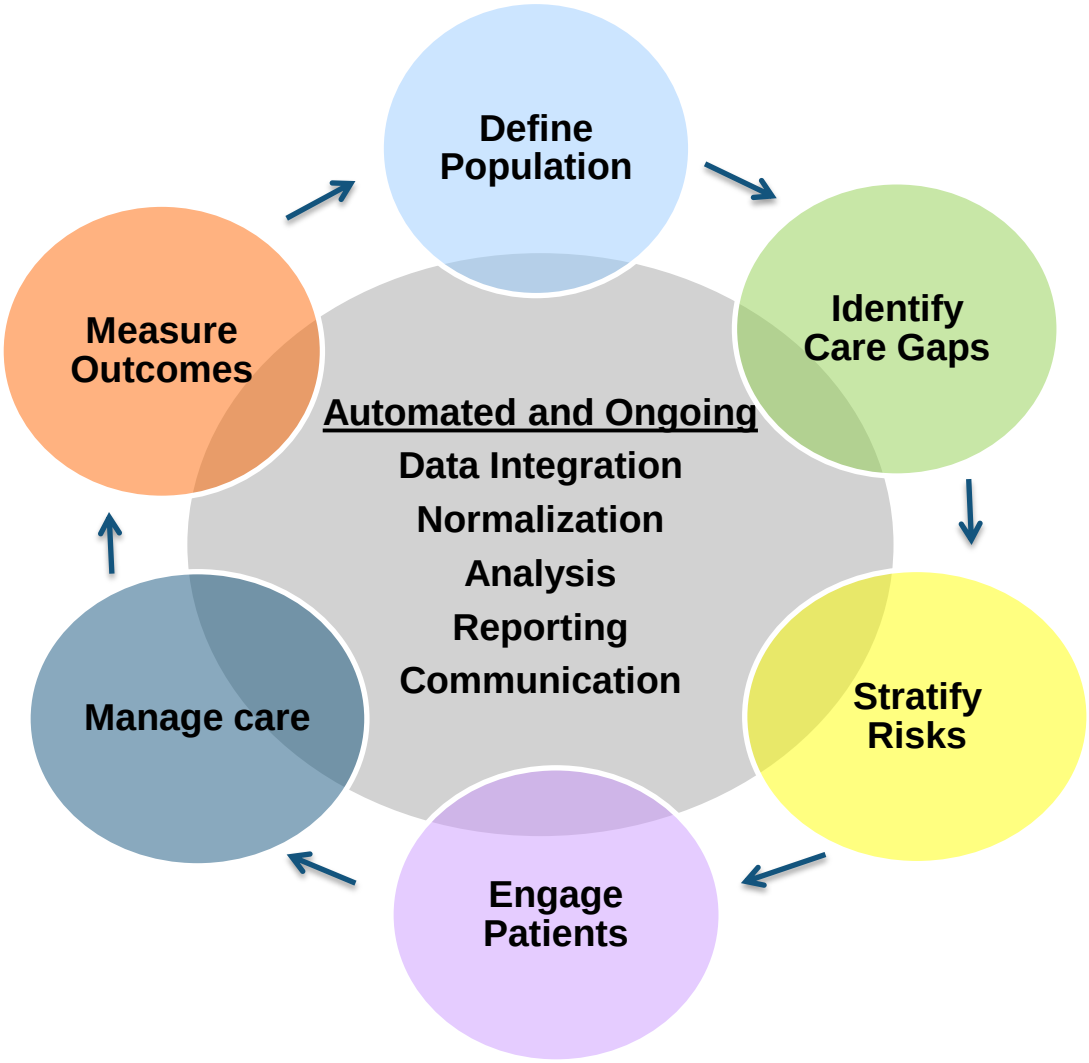
Outcome-driven System Approach

- Systematic application of EBM and Decision Support Tools
- Data warehouse and business intelligence to analyze, prioritize and evaluate effectiveness

HIMSS DELAWARE VALLEY Chapter

Source:Siemens 2013

Population Health Technology Model



HIMSS DELAWARE VALLEY Chapter

Inspira's Population Health and Care Management Technology Solution

- **Utilizes an vendor-agnostic, open, cloud-based, SAAS infrastructure providing (HIE):**
  - **Multi-system interoperability** that can receive, display, store, transfer, and exchange data from multiple EHR and billing systems
  - **Multi-tenant capabilities** with horizontal volume scalability
  - **Real time, secure information sharing** and bi-directional communication between patients, stakeholders, settings and systems
- **Provides a single source Person Centered Repository [PCR] to aggregate data (HIE)**
  - Parses multiple incoming data sources including HL7, XML, EDI, CCD
- **Utilizes "Enterprise Content Repository" for semantic normalization**
  - Aggregates and normalizes information to support operations
- **Includes "Big Data" Architecture for Healthcare Intelligence**
  - Stores massive amounts of structured, unstructured and normalized data
  - Utilizes Business Objects Reporting software for performance analysis and predictive analytics
  - Identifies trends and patterns analysis of quality, access and cost to gain actionable business intelligence
- **Includes a mobile solution accessible by local, remote and embedded users**
  - Built on HTML5 framework to support tablets (v1.0) and smart phones (V.2.0)

HIMSS DELAWARE VALLEY Chapter

Source:Siemens 2013

Inspira's Population Health and Care Management Technology Solution

- **Utilizes Evidenced-based clinical content that drives interventions**
  - Initially it includes 10 targeted chronic conditions from NQF; Aligned with ACO reporting requirements
  - Care Plans cover preventive care, risk reduction and recommended clinical management (Care Gaps)
  - Content supports clinical management of transitions and proactive identification of acute events where timely lower cost alternatives could be effectively implemented.
  - Utilizes a Care Team approach with patient included as an integral member
  - Includes self management, palliative care and coordination with community resources
  - Clinical content directs process for automation including outreach, reminders and interventions that can be adapted to individual care team models and patient needs
- **Integrates a scalable multi-tenant workflow engine enabling "event driven" business processes**
  - Agile and Flexible; Manages high volumes of fast-moving data and clinical events
  - Includes an ESB (Enterprise Service Bus) which connects different systems and applications together to enable real-time data to circulate across the environment
  - Enables proactive identification of opportunities and the timely interventions required to deliver improved outcomes rather than retrospective analysis after events have occurred.
  - Business process engine optimizes the use of clinical resources to those patients who need it most, while enabling the automation of structured electronic communications to low-acuity patients

Source:Siemens 2013

Inspira's Initial Plans for Population Health Management

- **Preventive care and risk reduction interventions**
  - Our initial population focus is on our ambulatory practices' population from healthy to multiple conditions
  - Horizon PCMH is our first managed population based on a specific reimbursement program

- **Management for patients with chronic conditions.**
  - Built in clinical treatment based on evidence
  - Patient self-management education to support compliance
  - Single disease and multiple disease combinations
  - Our Oncology navigation program is supported

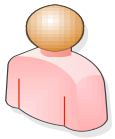
- **Management of transitions of care through transfer of data and earlier identification of collaboration opportunities**
  - Initial focus for transitions is on high priority transitions linked to readmissions penalties
  - CHF, MI, Asthma, COPD

- **Next we will be targeting patients with multiple chronic conditions that are most likely to benefit from coordination of care across multiple settings, providers, specialty services and stakeholders**

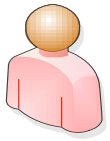
Population Health
Care Management Team

- **Technology helps, "expands the reach" of clinicians to manage larger volume of patients**
  - PCPs lead clinical teams and/or patient panels. Manage care across a range of providers
  - "Clinical Care Team" can include advanced practitioners, nurses, social workers, pharmacists and other providers.
- **Care Management team includes non-clinical staff**
  - Used as a key point for escalation
  - Serves as a resource for patients to call with questions and help with navigating the health care system
  - Provide ongoing coaching, reminders and advocacy
  - Improve patient activation, satisfaction and loyalty

Population Health - Care Management Team



Care Managers
Longitudinally manage patient care across settings

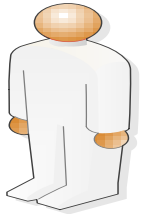


Health Coaches
Helps patients with goal setting, self-management

Remote Care Management Staff
Working directly in home, community or facility. Enables face to face interactions

Inpatient Case Managers
Manages patient needs during inpatient stay, discharge planning

Non-clinical Care Management Staff
Primary point of contact for coordinating patient needs



Patients and Caregivers
Accountable for personal health and wellness including active participation in personal goal setting, compliance and communication with care team.

Community Resource Specialist
Identifies and **c**oordinates with network providers and community services on behalf of the care team.

Physicians and Extenders Prescribes medications, orders services, diagnostic testing and therapeutic.

Specialty Care Management
Pharmacist, Diabetic Educator, Clinical Nurse Specialist to provide specialized interventions

Social Workers
Provides support on patient psychosocial, behavioral needs

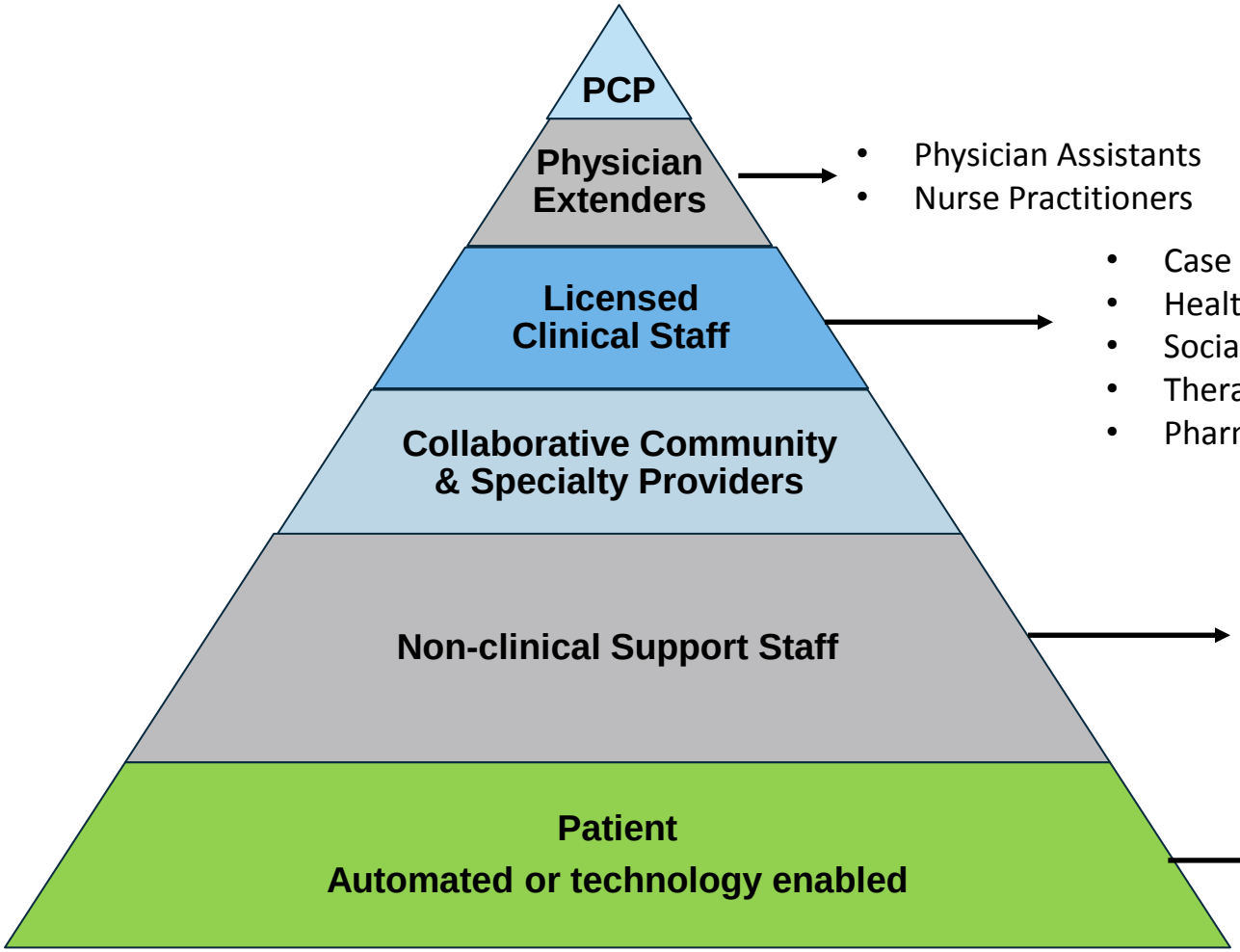
HIMSS DELAWARE VALLEY Chapter

Care Team Roles in Population Health

Risk Level	PHM Strategy	Resource Utilization	Targeted Sub-population	Goal	Care Team Role
Low Risk	Primary Prevention	Low	Healthy with no known chronic disease	Prevent the onset of disease	Patient
		Low	Healthy but showing warning signs of potential health risks		Patient
Moderate	Secondary Prevention	Moderate	Has chronic disease. Is managing it well . Meeting their desired goals	Treat disease and prevent complications	Patient + non-clinical care coordinator
		Moderate	Not in control of his/her Disease; but has not developed complications		Patient + non-clinical health coach
High	Tertiary Prevention	High	Chronic disease has progressed; Clinical status unstable; developed new conditions and/or significant complications;	Treat the late or final stages of a disease and minimize disability	Licensed Care Management , Physicians; Extenders
	Catastrophic	Extremely High	Severe illness /condition and potentially significant risk; Intensive long term needs; Highly complex treatment; Under direct care of multiple providers	Ranges from restoring health to only providing comfort care	Licensed Care Management , Physicians; Extenders

HIMSS DELAWARE VALLEY Chapter

Team-Based Care Model



- Physician Assistants
- Nurse Practitioners

- Case Managers
- Health Educator
- Social Workers
- Therapists
- Pharmacists

- Coordinators
- Outreach
- Advocates
- Health Coach
- Member Service

- Automated Message
- IVR
- Patient Portal
- Appointments
- Email
- Reminders

HIMSS DELAWARE VALLEY Chapter

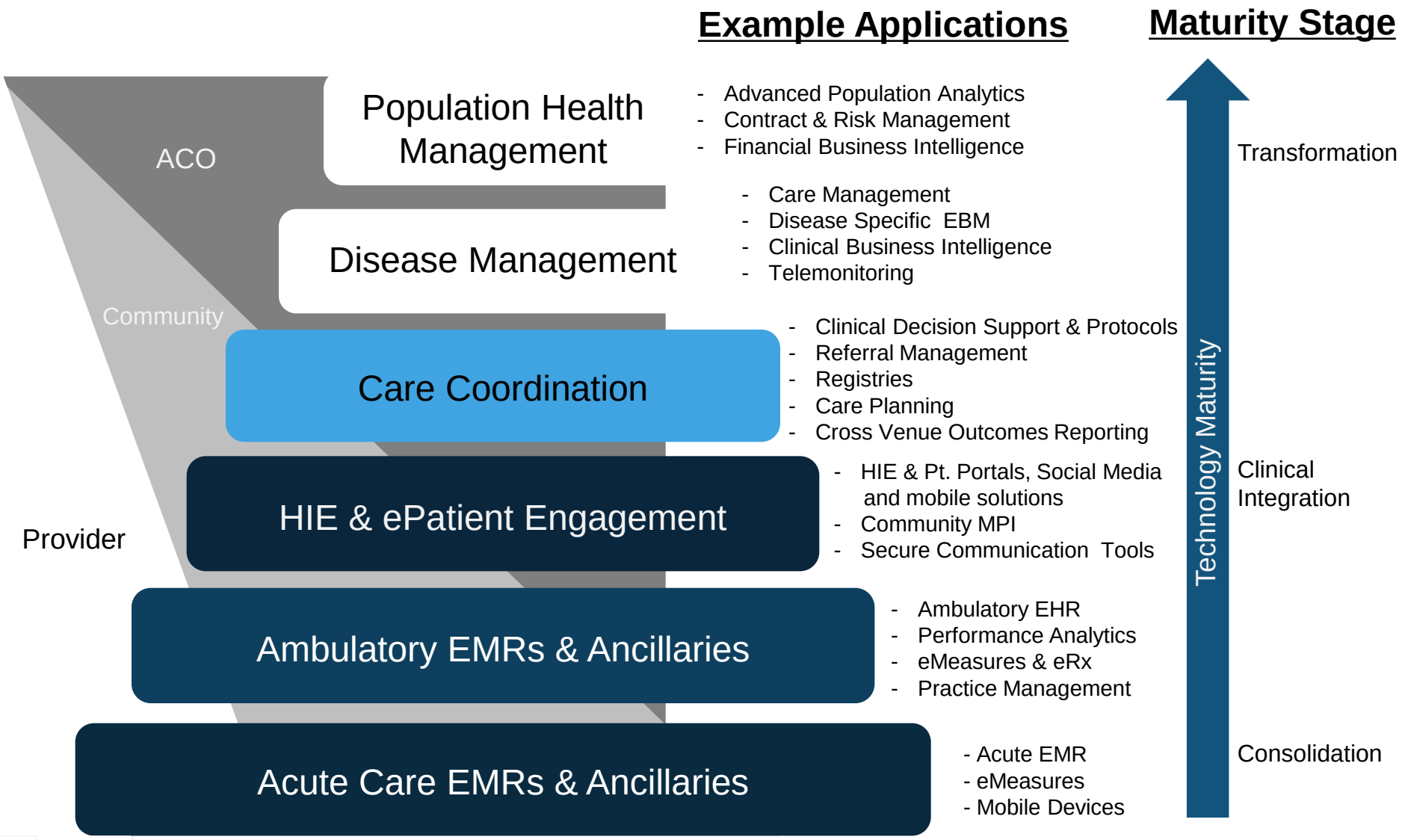
Current Population Health and Care Management Features

- **Provides a summary level, longitudinal view of patient clinical status, history, service utilization and plan of care**
  - All eyes on the same multi-site, view of key patient information
- **Identifies gaps in recommended care across the continuum of populations segments; from healthy to those with multiple chronic conditions**
- **Incorporates predictive analytics, ongoing risk stratification and proactive event management**
- **Creates care plan with associated tasks, assigned according to team-based roles with timelines and follow-up escalation steps**
  - Includes patient as an active member of care team.
  - Drives efficient use of Care Management resources with dynamic task lists for day to day organization
- **Secure technology enabled communications including the addition of robust patient engagement capabilities in future versions**
- **Patient and plan level dashboard reporting on key population health and disease specific indicators**
- **Incorporates the Big Data infrastructure to provide strategic Business Intelligence capability**

HIMSS DELAWARE VALLEY Chapter

Source:Siemens 2013

Next Generation Accountable Care Platform



Source: AHA Center for Healthcare Governance

Thank You

HIMSS DELAWARE VALLEY Chapter