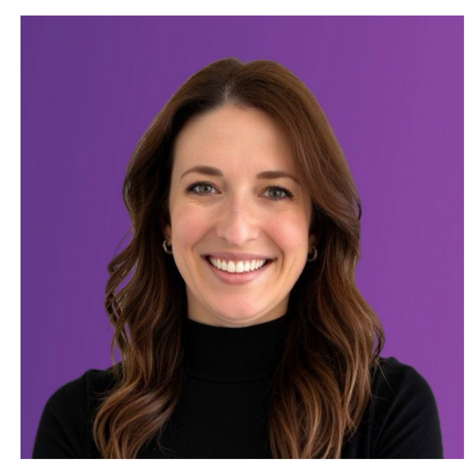
From Strategy to Impact

Driving Measurable Impact with Population Health Analytics

Todays' Speakers

Kristin Poth
AVP, Medical Management
Johns Hopkins Health Plans



Donna Logan
Director, Population Health
Johns Hopkins Solutions

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Johns Hopkins HealthCare Solutions

Our **mission** is to improve people's health and well-being by commercializing the best of Johns Hopkins.

Our **vision** is to inspire and empower global populations to be the healthiest they can be.

Population Health Analytics

Johns Hopkins Onsite Clinics

World-Class Health Care — at Work

JHHP: Innovative Managed Care

A provider-sponsored plan in the Mid-Atlantic, advancing quality and affordability of health care for over 30 years.

Johns Hopkins Health Plans
(JHHP)

- **Johns Hopkins Advantage MD** — *Medicare Advantage*
- **Johns Hopkins Employer Health Programs** — *Self-Insured Employer Group*
- **Priority Partners MCO** — *Medicaid*
- **Johns Hopkins US Family Health Plan** — *Military TriCare*
- **Johns Hopkins HealthCare Solutions** — *Ventures including the ACG System & Illustra Health*

Medical Management across Populations

Care & Disease Management

Utilization Management

Quality & Clinical Measures

Cost of Care

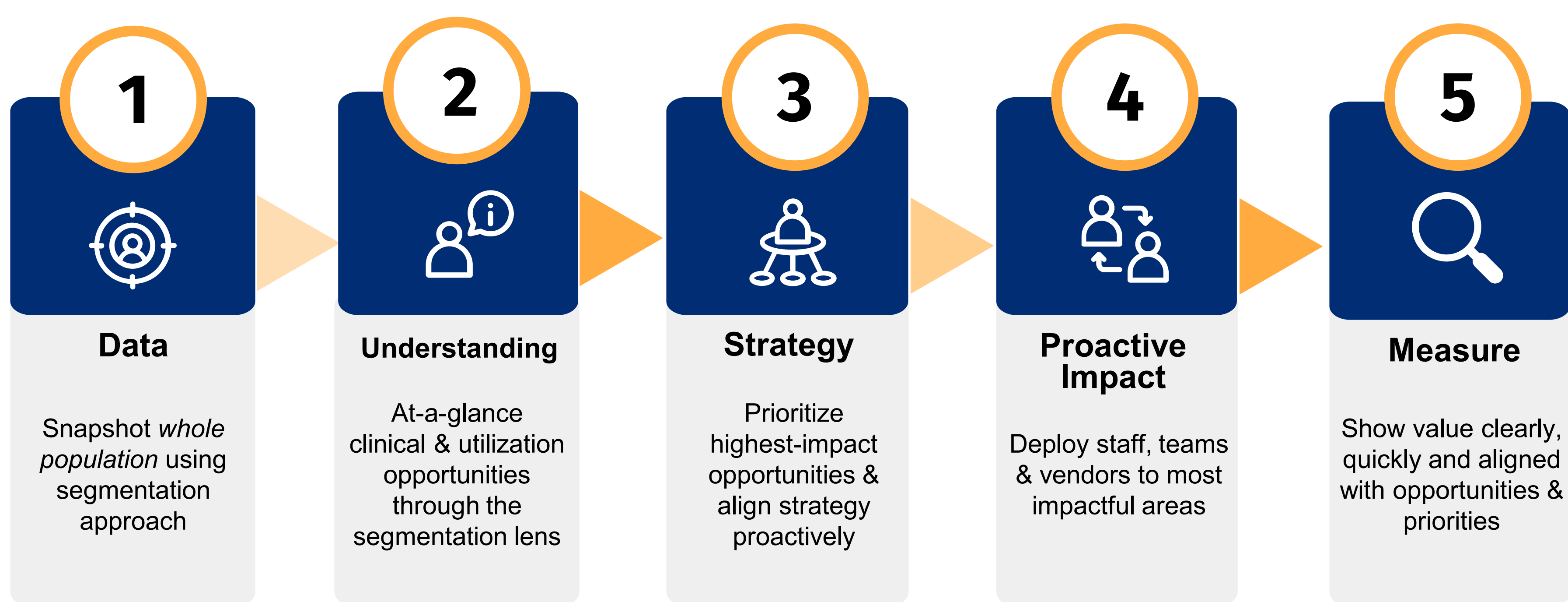
Value Based Care

Regulatory & Governance Requirements

Vendors, Systems & Data

Partner Providers, Hospitals & Community Resources

Our Approach



Data

Snapshot *whole population* using segmentation approach

Segment-driven Analytics

Previously, segmentation was through a disease management lens:

Chronic Conditions Among Members

Condition	Number of MA Members
Bipolar Disorder	406
Schizophrenia	187
Depression	5108
COPD	2136
Chronic Renal Failure	2748
Congestive Heart Failure	1469
Diabetes	5311
Disorders of Lipid Metabolism	12550
Hypertension	12555
Ischemic Heart Disease	3681
Human Immunodeficiency Virus	98
Hypothyroidism	2934
Low Back Pain	3775
Deficiency Anemia	2033
Persistent Asthma	3147
Parkinsons Disease	493
Immunosuppression/Transplant	176
Osteoporosis	2029
Glaucoma	2178
Rheumatoid Arthritis	692
Age-Related Macular Degeneration	1506
Seizure Disorders	876

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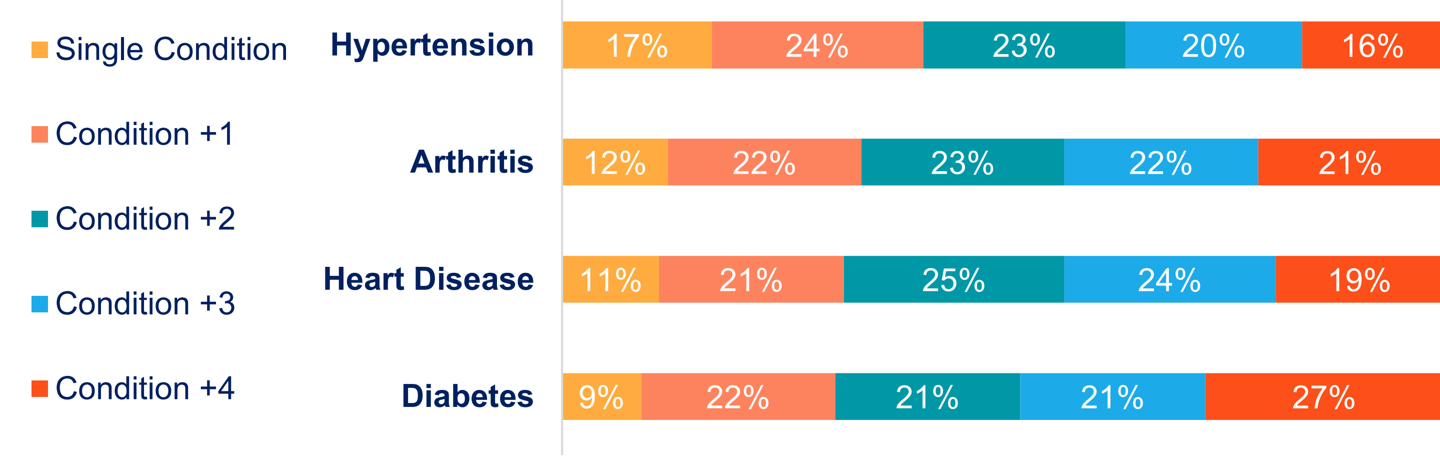
Data

Snapshot *whole population* using segmentation approach

Segment-driven Analytics

Chronic condition segmentation methodology misses the bigger picture:



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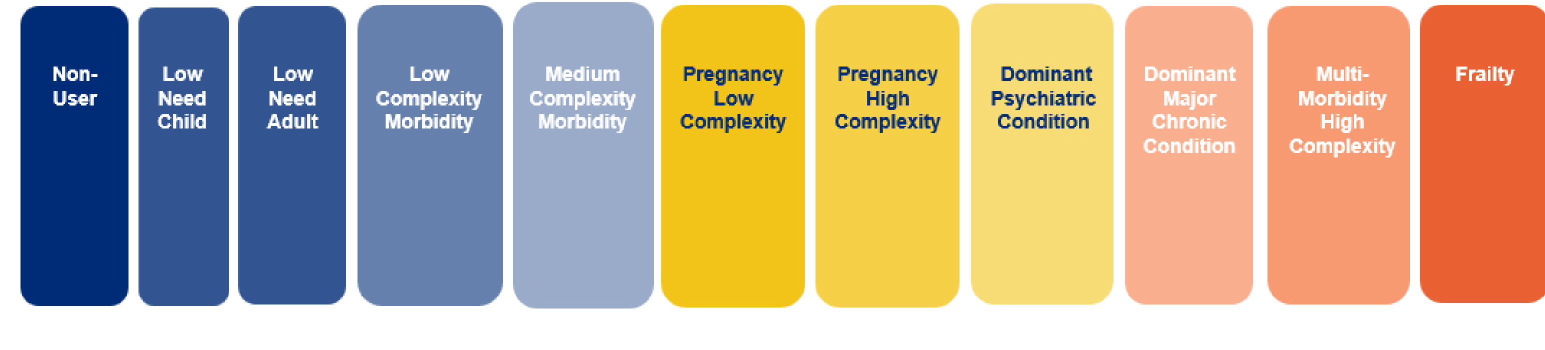
Data

Snapshot *whole population* using segmentation approach

Segment-driven Analytics

Complexity & risk-based patient need groups allow for clear alignment to action:



Low → High

Health Needs

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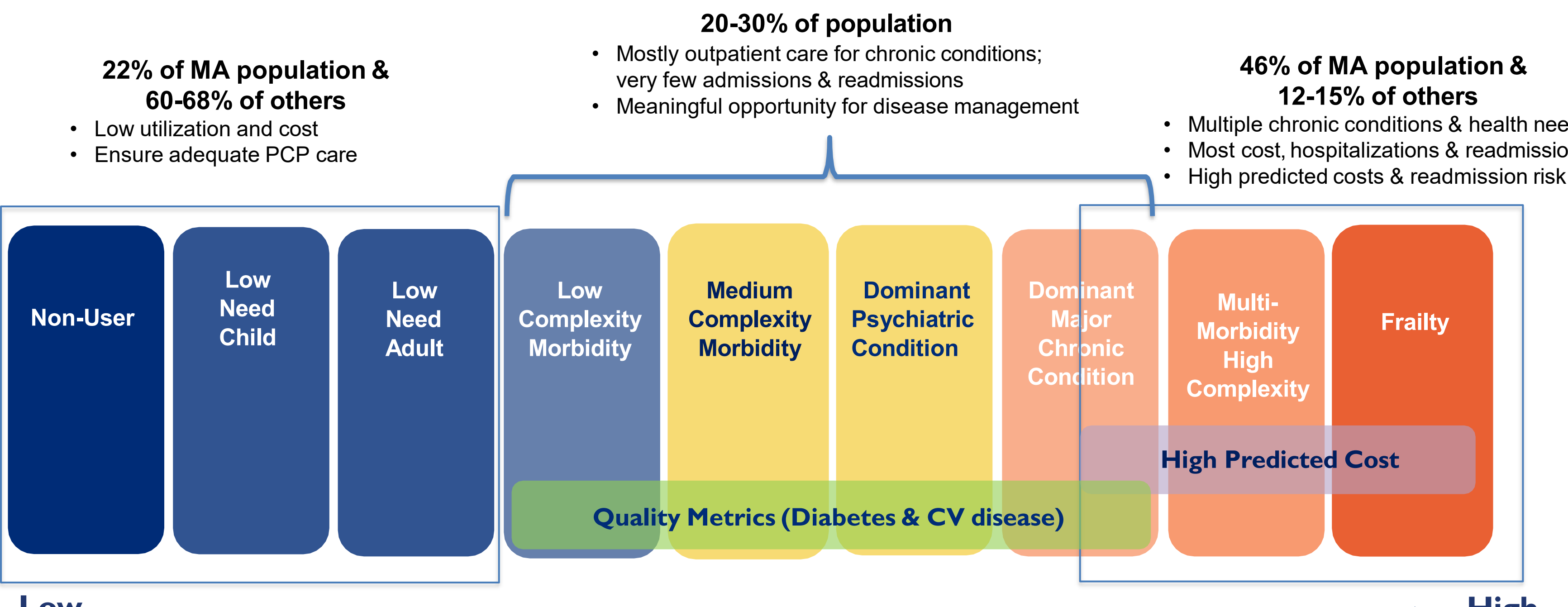
Data

Snapshot *whole population* using segmentation approach

Segment-driven Analytics

- Delivered demographic, medical and pharmacy datasets for each population to JH Health Solutions team
- Normalized, processed through Illustra Health, and QA'd output
- Created a PNG-driven view across all our populations
- Applied Solutions' internal algorithms to overlay:
  - NCQA requirements
  - HEDIS & other quality measures
  - Opportunity areas
  - Population health best practices

Patient Segmentation Summary Across LOBs



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Understanding

At-a-glance clinical & utilization opportunities through the segmentation lens

Avg Annual Cost

Health Needs

Frail

Multiple, Complex Conditions

Major Chronic Disease

Serious Psych

Multiple Diseases

Low Complexity Disease

Healthy Children & Adults

Non-Users

Insight:
- 94% of hospitalizations
- 98% of readmissions

Insight:
- 38% have diabetes and 77% have hypertension
- 30% of all ED visits, majority non-emergent

Insight:
- 20% of children miss their annual pediatrician visit
- Many adults using meds for chronic disease, with no visit or diagnosis

Strategy

Prioritize highest-impact opportunities & align strategy proactively

Avg Annual Cost

Frail

Multiple, Complex Conditions

Major Chronic Disease

Serious Psych

Multiple Diseases

Low Complexity Disease

Healthy Children & Adults

Non-Users

Health Needs

Strategy:
- Focus readmission prevention program
- Proactive care for patients with high predicted cost

Strategy:
- Disease & quality metric approach
- Medication adherence programs
- Practice-focused ED reduction efforts

Strategy:
- Non-clinical outreach for PCP & quality metrics
- Optimize site of service

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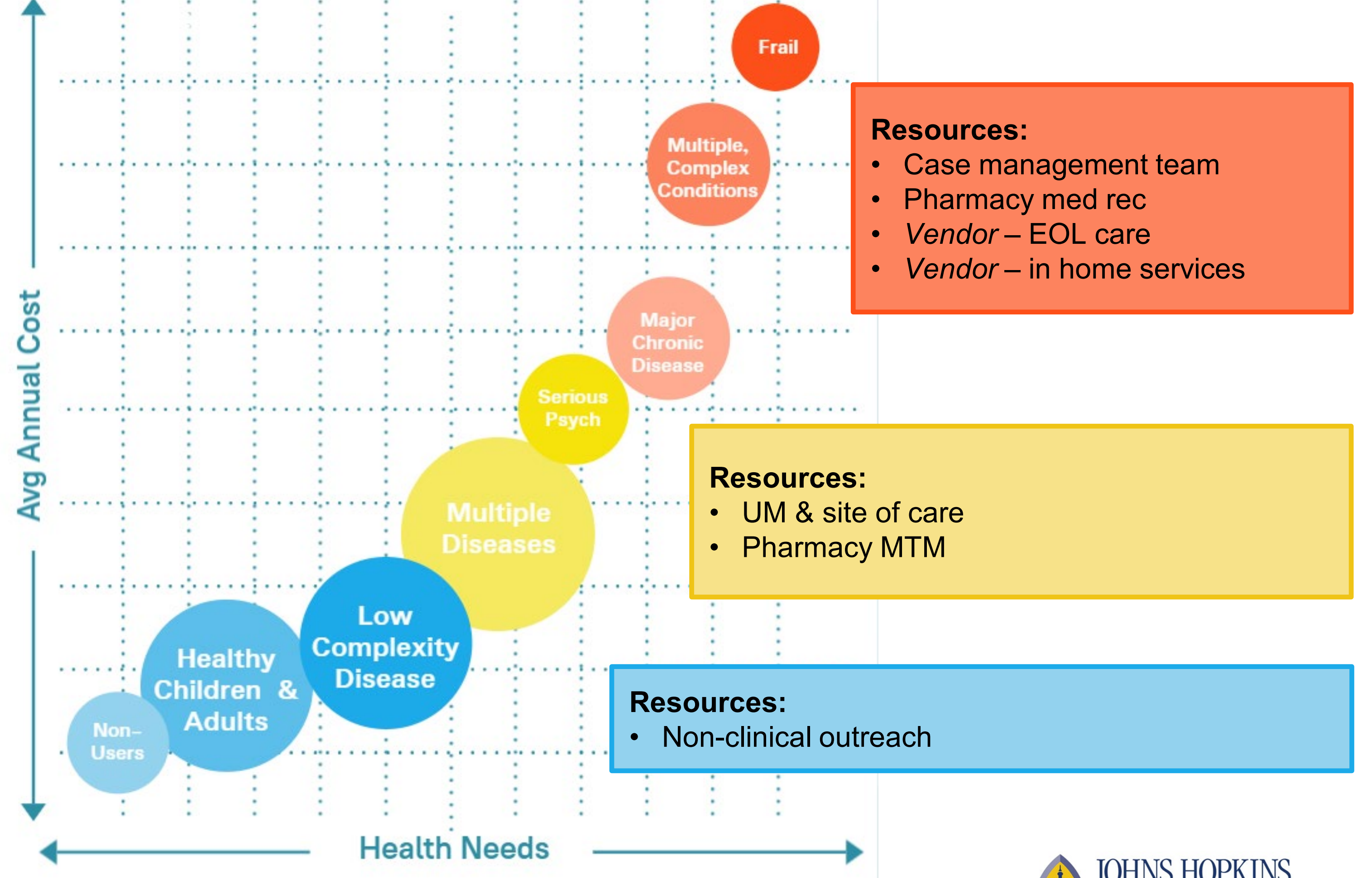
Proactive Impact

Deploy staff, teams & vendors to most impactful areas



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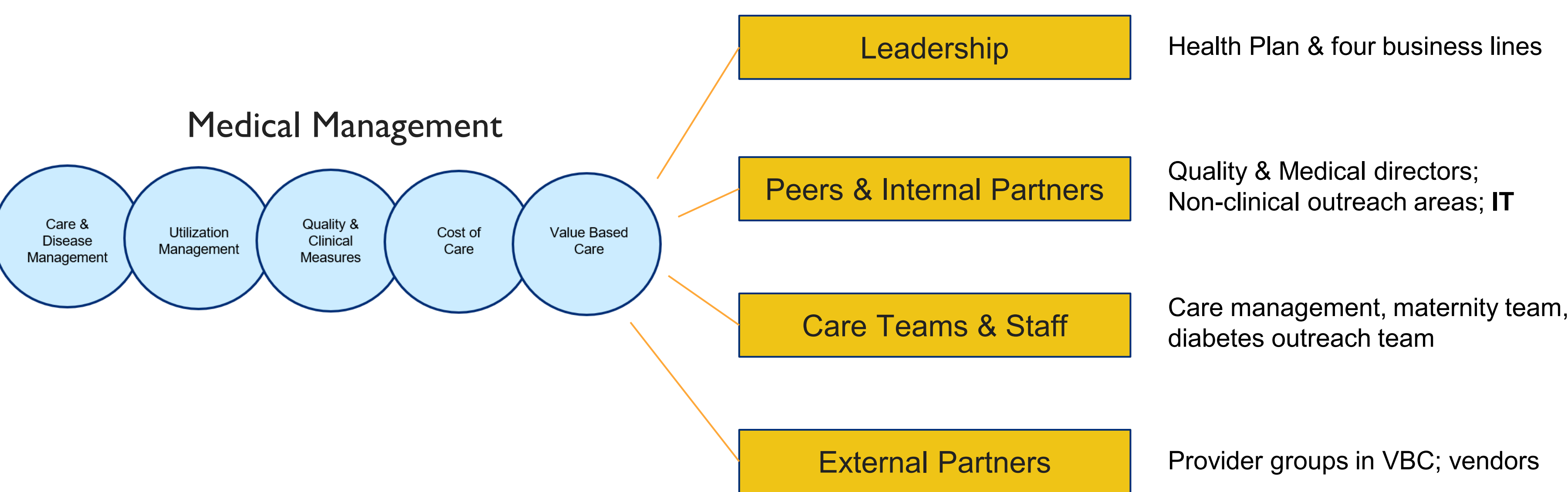
Strategic Alignment & Communications



Proactive Impact

Deploy staff, teams & vendors to where they can be most effective

	Healthy & Low-Need Members	Medium Need & Chronic Disease	Multiple Complex Disease & Frail
Start	Non-clinical outreach to ensure adequate pediatrician & PCP care; address quality gaps if needed	Dedicated support for patients w/ chronic disease, living in high-poverty areas	Care management focus on predicted high cost with identified opportunities
Stop	Clinical/nursing outreach calls to relatively healthy patients (re-deploy to medium & high-need)	Readmission prevention calls – low impact	
Maintain		Quality metric focused outreach, w/ diabetes priority High-risk maternity program, for Medicaid	Readmission prevention calls EOL care support (vendor)

Clinical Alignment: Maternity Program

Near-term wins:

1) Meet state program enrollment goals w/ no net new staff

2) Double down on PPC visit quality measure

	Healthy & Low-Risk Pregnancies	High Risk & Complex Pregnancies
Start	Non-clinical outreach for state's MPRA & MOM programs PPC* Visit scheduling support	Clinical focus on high-risk women w/o OB access
Stop	Clinical outreach for patients with established OB care	
Maintain	Welcome kits, educational mailers	SUD identification & referrals

*PPC = Postpartum Care Visit Rate; a Maryland Medicaid VBC priority

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Measure

Show value clearly, quickly and aligned with opportunities & priorities

Measures:

- Readmission rate
- Among the target patients:
  (1) Engagement
  (2) # of care gaps closed
  (3) cost avoidance

Measures:

- A1C improvement & other diabetes quality measures
- Maternity outcomes, for Medicaid program
- *Future: ED visits*

Measures:

- PCP & pediatrician visit rates
- *Future: site of service*

Focused Approach, Significant Results

Measure

Show value clearly, quickly and aligned with your opportunities & priorities

Diabetes Quality Outreach	High Risk Maternity Program	Readmissions Intervention
18% improvement in A1C <9 measure* 21% growth in blood pressure control 4% uptick in eye exam adherence*	Post-partum visits increased by 18% More prenatal visits, pediatrician appointments and WIC applications 50% drop in anxiety & self-blame concerns; fewer findings in Edinburgh assessment	Members in CM were less likely to be readmitted (11% vs.13%) Members engaged in CM were more likely able to follow-up with their provider (76 vs 56) and half as likely to be readmitted (9% to 19%) **Estimated savings within 1 year: $.08-1.3M**

Qualitative Results

- Eliminate redundancy between vendors & internal teams
- Clinical staff working at ‘top of license’
- Improved Patient Engagement and Satisfaction (fewer haphazard touches)
- Enhanced Coordination of Care
- Increase in % of members touched
- Ability to layer in social needs support + Medicaid maternity requirements w/o additional hiring

Summary & Wrap up

- Clinical leadership redefined & executed a proactive strategy to improve population outcomes, using a structured, segmentation-driven approach
- Holistic lens allowed the team to identify areas of duplication, re-deploy staff and teams, and achieve rapid progress in disease-management outcomes
- Beyond the data, communication has been key – including the what, why and how of the new strategy

Questions?

For more information, please contact us at **acginfo@jh.edu** or visit **hopkinsacg.org**

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