Maryland Health Services Cost Review Commission

Data Driven Care Coordination Initiatives

December, 2014

Focus on Care Coordination

- Care coordination is central to the goals of the All-Payer Model: improving care, improving health and reducing cost
- A successful care coordination strategy must take advantage of data driven initiatives to:
  - Identify those who will benefit from care coordination efforts
  - Understand characteristics of those high needs patients
  - Create targeted interventions to meet their needs

Targeting High Needs Patients for Care Coordination

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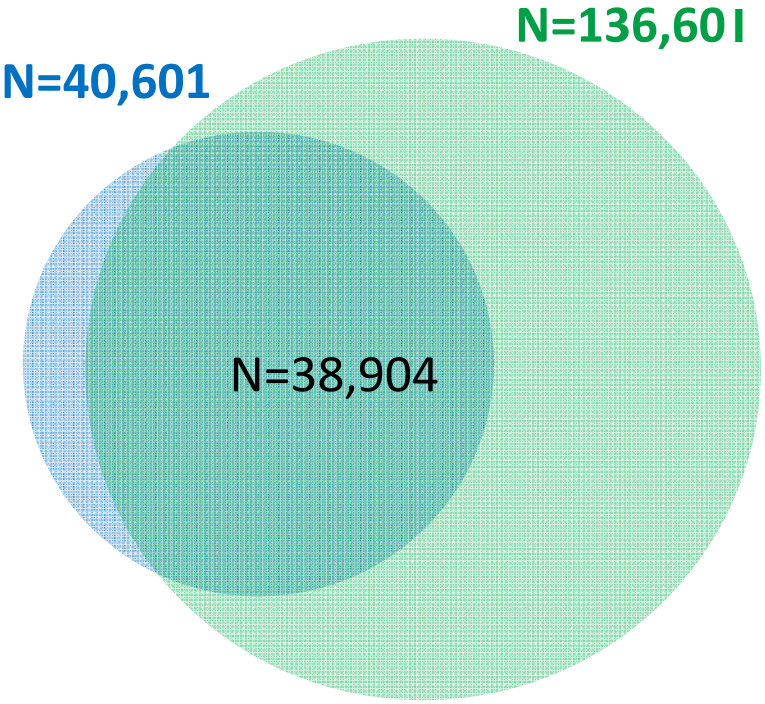
Data Analysis

- Calendar Year 2012 HSCRC Hospital Data
- Inpatient, ER, and Observation Services (excluded obstetrics)
- Linked patient IDs across hospitals using CRISP Master Patient Index
- Added Clinical Classification categories to enable summarization and ranking of conditions

Who to Manage?

High Utilizer Patients
≥ 3 IP Visits

- 3% of patients
- 31% of charges
- $74,000 per patient
- 4.3 IP visit per patient



High Cost Patients
top 10% of annual charges

- 10% of patients
- 69% of charges
- $47,000 per patient
- 2.2 IP visits per patient

- Of the High Cost Patients, 29% have ≥ 3 IP visits
- May be appropriately targeted through a hospital-based intervention

≥ 3 IP Visits	29% of patients	44% of charges
2 IP Visits	28%of patients	25% of charges
≤ 1 IP Visit	43% of patients	31% of charges

Analysis excludes maternity cases and hospital OP services except ER and observation

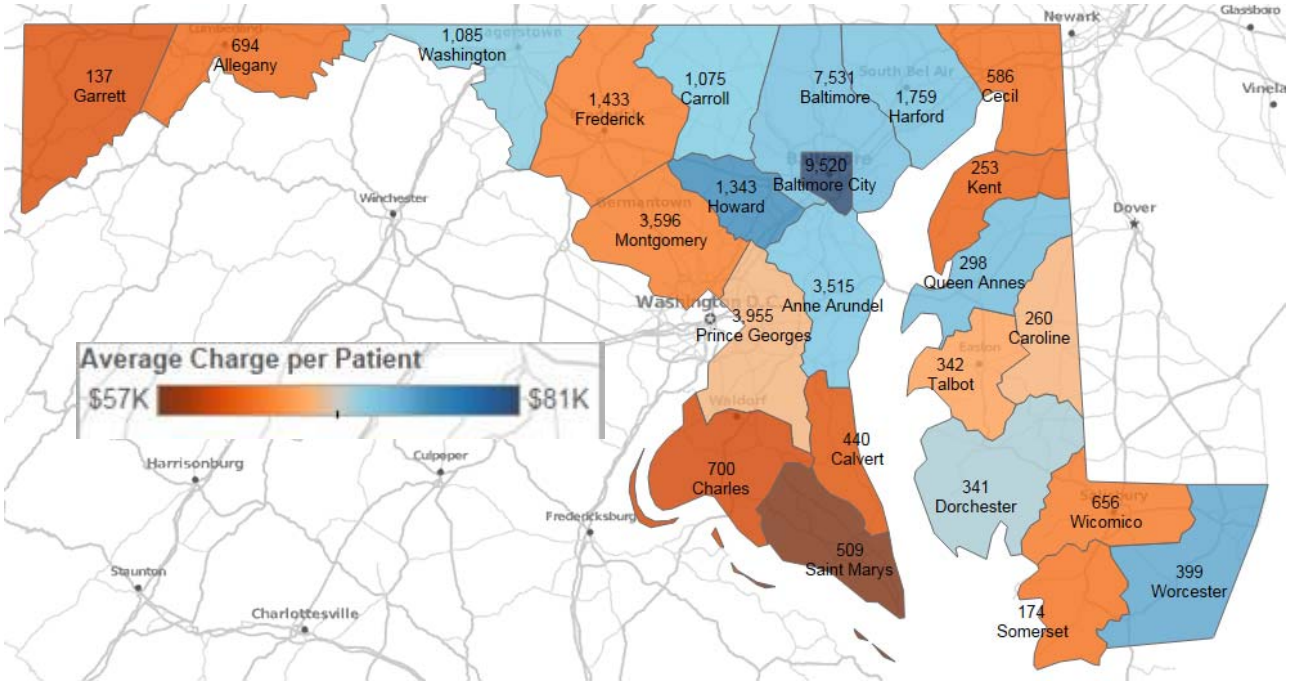
Characteristics of the 40,601 High Utilizers

- 66 % of patients and 65% of charges are Medicare of Dual eligible

Payer Group	# of Patients	% of Charges	Total Charges	% of Charges
Medicaid, Other, Self Pay	13,731	34%	$ 1,031,068,643	35%
Medicare	20,592	51%	$ 1,419,886,123	49%
Dual Eligible	6,278	15%	$ 456,370,192	16%

Characteristics of the 40,601 High Utilizers

- Geographically distributed across the State



COUNTY	# HIGH UTILIZERS PER 100K
Allegany	3.1
Anne Arundel	3.0
Baltimore	2.5
Baltimore City	2.7
Calvert	8.8
Caroline	16.5
Carroll	4.0
Cecil	4.1
Charles	5.9
Dorchester	7.6
Frederick	4.0
Garrett	12.8
Harford	4.5
Howard	3.2
Kent	12.3
Montgomery	2.5
Prince Georges	3.0
Queen Annes	13.5
Saint Marys	6.5
Somerset	13.6
Talbot	6.0
Washington	2.7
Wicomico	3.9
Worcester	7.2

Targeting Intervention is Critical

- Targeting appropriate interventions to the right populations is imperative to improving care and yielding a return on investment

Illustration	High Utilizers ≥ 3 IP Admits	High Cost Top 10%
A. Number of Patients	40,601	136,601
B. Number of Medicare and Dual Eligible	27,000	79,000
C. Annual Intervention Cost/Patient	$3,500	$3,500
D. Annual Intervention Cost (B X C)	$95M	$277M
E. Annual Charges (Baseline)	$1.9B	$3.8B
F. Annual Gross Savings (15% X E)	$280M	$570M
G. Variable Savings (F X 50%)	$140M	$285M
H. Annual Net Savings (G-D)	$45M	$8M

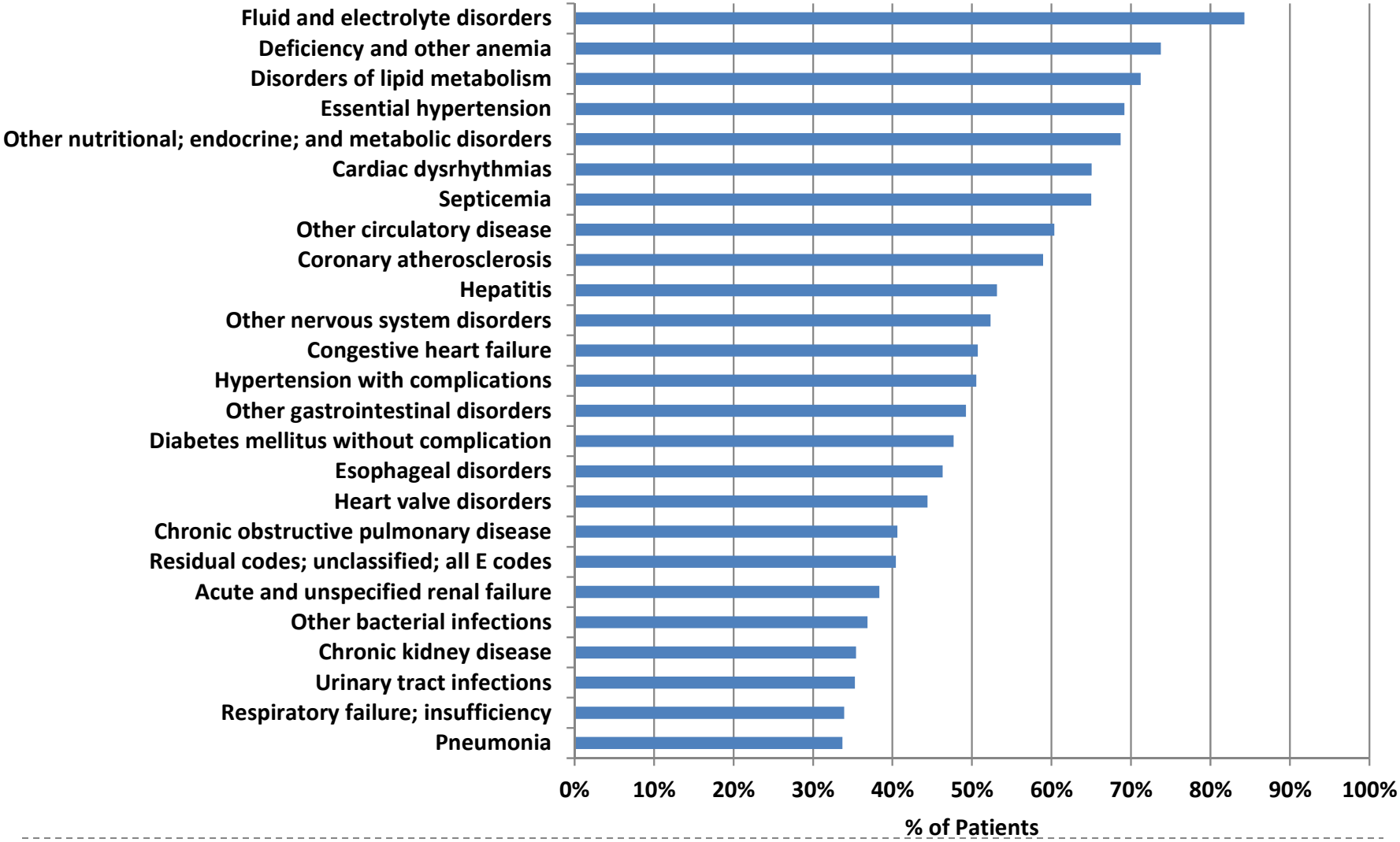
Patient Characteristics

Over vs Under Age 65 Population May Require Different Approaches

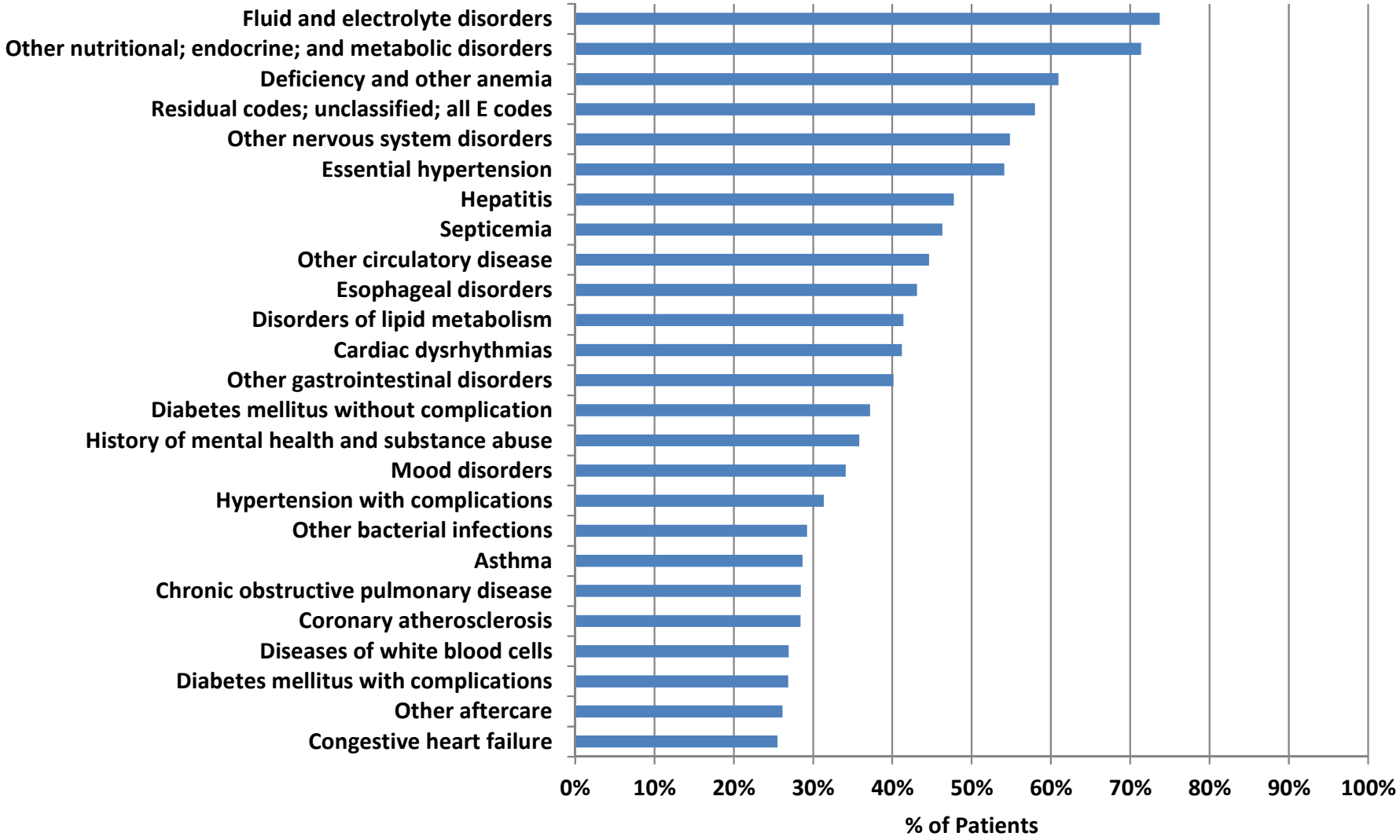
Payer Age Group	# of Patients	IP Admits / Pt	ER Visits/Pt	% of Pts w/ HIV	% of Pts w/ BH Condition	Total Charges	Charges/Pt
Dual Eligible 0-20	4	9.3	11.5	0%	75%	$418,515	$104,629
Dual Eligible 21-64	2,675	5.0	5.0	8%	53%	$216,259,893	$80,845
Dual Eligible 65+	3,599	4.1	1.7	1%	35%	$239,691,785	$66,600
Medicare 0-20	568	4.1	3.3	0%	37%	$46,458,037	$81,792
Medicare 21-64	6,300	4.9	6.1	8%	58%	$488,849,729	$77,595
Medicare 65+	13,723	3.9	1.2	0%	34%	$884,530,878	$64,456
Group	26869	4.3	2.9	3%	42%	$1,876,208,837	$69,828

- Older Medicare and Dual Eligible beneficiaries use the ER less frequently
- Younger Medicare and Dual Eligible beneficiaries have a high incidence of HIV
- Younger Medicare and Dual Eligible beneficiaries have a high incidence behavioral (BH) conditions

Top 25 Conditions: Medicare/Dual Eligible High Utilizers 65+



Top 25 Conditions: Medicare/Dual Eligible High Utilizers <65



Further Analysis of the Population Is Needed

- Further data collection, analysis and stratification to ensure that the right interventions are focused on the right patient populations
  - Health risk assessments (including home environment and supports)
  - Patients who would benefit from effective primary more than care management
  - Patients in assisted living/long term care may require different approaches coordinated by hospitals and long term care facilities
    - National studies have shown that 40 – 75% of hospitalizations from long term care facilities may be avoidable
    - In one study, 5 conditions (pneumonia, CHF, UTI, dehydration, and COPD) were responsible for 78% of all of the potentially avoidable hospitalizations

Take Aways

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Lessons Learned

- Case management and disease management activities are expensive
- Benefits of targeting intensive interventions are well documented
- Numerous parties involved in intensive interventions—physicians, hospitals, case managers, community support services, families
- Data acquisition, analytics and infrastructure is expensive and there are significant benefits of “scale”

Opportunities

- Statewide infrastructure to support targeting, community case management planning and tracking software, and data analytics and reporting
  - Gaining support and direction to get underway
- Evaluate best practices for addressing high needs patients and begin to develop targeting and intervention concepts for scaling