Medicaid Innovation Accelerator Program
Beneficiaries with Complex Care Needs and High Costs (BCN)

Identification and Stratification of Medicaid Beneficiaries with Complex Needs and High Costs
IAP BCN National Dissemination Webinar

October 31, 2016
2:00 PM – 3:30 PM ET
Logistics for the Webinar

• All participant lines will be muted automatically during today’s webinar.

• Use the chat box on your screen to ask a question or leave comment
  – Note: chat box will not be seen if you are in “full screen” mode
  – Please exit out of “full screen” mode to participate in polling questions

• Moderated Q&A will be held during the webinar:
  – To verbally ask a question, dial *1. You will be connected to the webinar operator, who will connect your line so that you can ask your question.

• Please complete the evaluation in the pop-up box after the webinar to help us continue to improve your experience.
Poll #1

• Please select the type of organization you are representing.
  – State Medicaid Agency
  – State Agency other than Medicaid Agency
  – Managed Care Organization
  – Healthcare Provider
  – Consultant
  – Other
Agenda and Background

Karen LLanos
Agenda

• Background
  – Karen Llanos, Director, Medicaid IAP Centers for Medicare & Medicaid Services

• Key Learnings about BCN Identification & Stratification
  – Juan Montanez, Principal, Health Management Associates

• Perspectives from the Field
  – Tracy Johnson, Director, Health Care Reform Initiatives, Denver Health
  – Ruben Amarasingham, President and CEO, Parkland Center for Clinical Innovation, Pieces Technologies, Inc.

• Reflections from BCN Initiative States

• Topic Wrap Up and Closing Remarks
Background

• BCN track of IAP has worked with five states over ten months on issues such as:
  – Identifying and stratifying BCN target populations
  – Incorporating social determinants of health into targeting and program design activities
  – Designing effective care management strategies
  – Designing Alternative Payment Methodologies

• This is the first of a series of four national dissemination webinars for the IAP Beneficiaries with Complex Care Needs & High Costs program area

• Today’s focus-- Identifying and stratifying BCN target populations
IAP BCN Participating State Teams

- District of Columbia
- New Jersey
- Oregon
- Texas
- Virginia
Learnings about BCN Identification and Stratification

Juan Montanez
Premise

- Innovative models and systems of care (ACOs, health homes, etc.) are being implemented across the country with the goals of improving the health and containing the health care costs of Medicaid beneficiaries with complex needs (BCNs).
- BCNs manifest poorly managed yet impactable health conditions that result in high utilization and costs.
- Addressing these conditions calls for coordinated physical health, behavioral health and social services that attend to health risks, gaps in care and barriers to accessing needed health care services.
What is Targeting?

**DATA**

- Demographics - context - service utilization and cost - other relevant data

**PROFILING**

- Who are they?
- What services are (aren’t) they using/accessing?
- Key markers
- Common characteristics?

**HOTSPOTTING**

- Where are they?
- High concentration in particular locations?
- May geography be playing a role in their particular situation?

**IMPACTABILITY ASSESSMENT**

- Are their health conditions impactable?
- Are the factors affecting access to services impactable?
What is Targeting? (cont’d)

**IMPACTABILITY ASSESSMENT**
Are their health conditions impactable?
Are the factors affecting access to services impactable?

**STRATIFICATION**
Group potential program participants based on
- Common characteristics and needs
  - Case complexity
  - Expected outcomes

**CHANNELING**
“Route” program participants to the BCN program(s) that best address their situations
The Universe of BCN program participants: 
*Results from Systematic Activities*

• After Completing...

**PROFILING/HOTSPOTTING**

**IMPACTABILITY ASSESSMENT**

**STRATIFICATION AND CHANNELING**

- **NO BCN PROGRAM WARRANTED**
- **BCN PROGRAM A TIER 1**
- **BCN PROGRAM A TIER 2**
- **BCN PROGRAM B**
Macro vs. Micro Targeting

• Macro
  – Occurs at the state/region/local level
  – More reliant on higher-order, more aggregated, historical data
  – More reliant on encounter/claims and program participation data
  – Ultimately leads to channeling individuals to specific BCN programs but **not** to the development of case/care/service plans
  – Occurs prior to “enrollment” in a BCN program
• Micro
  – Occurs at the program/service provider level
  – Pulls more “real-time” information, such as facts garnered from observations/assessments, into evaluation and decision making
  – Leads to development of individualized case/care/service plan and assignment to a specific care manager and care team
What Data Do States and BCN Providers Need for these Activities?

Agency Data Sources

Identification
- IDs - multiple systems
- Cross-system indexing
- Identity validation

Location and Contact
- Physical address(es)
- Email address(es)
- Phone #s

Demographic Profile
- Age
- Sex
- Ethnicity
- Languages
- Family composition

Context
- Medical – including HSA/HRA and related findings
- Psychological/behavioral
- Social/environmental
- Employment
- Living arrangements
- Genetic profile
- Lifestyle and personality

Program Participation
- Eligibility categories
- Enrollment spans

Data-intensive Program Management Functions
- Population Targeting
- Program Design
- Program Implementation Planning
- Program Implementation
- Program Operations
- Program Monitoring and Evaluation
- Program Performance Improvement

Information Systems External to Agencies
- Managed Care Plan Data Systems

Enrollment - Care Management - Outcomes

Provider Data Systems

Medicaid Innovation Accelerator Program
### Key Learnings from Engagement with IAP BCN State Participants

<table>
<thead>
<tr>
<th>Area</th>
<th>Examples</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of algorithms for BCN targeting and risk stratification/scoring</td>
<td>- CDPS</td>
<td>- Important to incorporate social determinants to the degree that is feasible</td>
</tr>
<tr>
<td></td>
<td>- PRISM (WA State)</td>
<td>- Means to an end...</td>
</tr>
<tr>
<td></td>
<td>- Elixhauser comorbidity index</td>
<td></td>
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<tr>
<td>Use of academic institutions and Medicaid EQRO in support of analytics activities</td>
<td>- Oregon (OSHU)</td>
<td>- Many capable institutions</td>
</tr>
<tr>
<td></td>
<td>- Texas (ICHP – U. of Florida)</td>
<td>- Important that this is not treated mainly as academic or research exercise</td>
</tr>
<tr>
<td>Overcoming the challenge of data aggregation and harmonization</td>
<td>- Data warehouses/marts</td>
<td>- Leverage data “standards” (HIPAA, NIEM, HL7, QRDA, etc.)</td>
</tr>
<tr>
<td></td>
<td>- Decision support systems</td>
<td>- Ability to “drill down” and “roll up” is critical</td>
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</tbody>
</table>
## Key Learnings from Engagement with IAP BCN State Participants

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<thead>
<tr>
<th>Area</th>
<th>Examples</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overcoming challenges of sharing/exchanging data</td>
<td>- Data sharing/ exchange use cases</td>
<td>- Must understand real constraints to, and enablers of, data sharing/exchange</td>
</tr>
<tr>
<td>- Across agencies</td>
<td>- Data use agreements (DUAs)</td>
<td>- Ability to regulate access based on laws/regs, consents, user roles</td>
</tr>
<tr>
<td>- With and among MCOs</td>
<td></td>
<td>- Importance of well structured DUAs</td>
</tr>
<tr>
<td>Linking measurement strategies to targeted populations</td>
<td>- Leveraging claims data (VT)</td>
<td>- Importance of data governance</td>
</tr>
<tr>
<td></td>
<td>- Going beyond claims data to harness data from risk assessments (WA)</td>
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<tr>
<td></td>
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<td>- Strategies depend on available data and analytics resources</td>
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<td></td>
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<td>- Important to leverage current quality/performance initiatives but not overburden data collection/reporting capacities</td>
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<td></td>
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<td>- Importance of alignment across state, other payers and providers</td>
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<tr>
<td></td>
<td></td>
<td>- Challenges to harness social determinant data</td>
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Perspectives from the Field

Tracy Johnson, PhD, MA
Director
Health Care Reform Initiatives Denver Health

Ruben Amarasingham, MD, MBA President and CEO
Parkland Center for Clinical Innovation. Pieces Technologies, Inc.
Macro and Micro Targeting for Population Health Management

Tracy Johnson, PhD, MA
Director, Health Care Reform Initiatives
Denver Health
Australian-American Health Policy Research Fellow (2016-17)
Denver Health
An innovative healthcare system that is a model of success for the nation.

**OUR AREAS OF FOCUS**

**Clinical Care**
Highest quality, low cost provider

**Education**
Academic center teaches the next generation of healthcare workers.

**Research**
Ongoing, leading-edge research

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**Community Health Centers**
Offering total family care in 8 neighborhood centers where families need it the most

**Rocky Mountain Regional Trauma Center**
Region’s top Level I Trauma Center for adults and Level II Center for children = whole family care

**School-Based Health Centers**
Keeping kids in school by providing vital health care to DPS students through 16 in-school clinics, free of charge

**Public Health**
Keeps the public safe through tracking communicable disease and promoting healthy behaviors

**Denver Health Medical Center**
One of Colorado’s busiest hospitals, ranked in top 5% for inpatient survival annually since 2011

**Regional Poison Control Center**
Trusted experts for multiple states and over 100 national and international brands

**Denver Health Medical Plan, Inc.**
Keeping our community healthy by providing healthcare insurance to 77,000+

**Denver Health Foundation**
Provides additional resources that bridge the gap financially to fund special projects and specific needs

**911 Response**
Operates Denver’s emergency medical response system, the busiest in the state

**NurseLine**
Registered nurses advising on medical information, home treatment, and when to seek additional care, giving patients peace of mind 24/7

**Denver CareS**
Provides a safe haven and detox for public inmates

**Correctional Care**
Providing medical care to prisoners in Denver’s jails and via telemedicine
Iterate to optimize population segmentation & patient identification

Assemble multi-disciplinary team

Choose macro accountable population

Develop risk stratification rules to define population segments (risks/tiers)

Evaluate financial stratification & clinical coherence of tiers

Develop care models for use within tiers

Identify individuals who are good candidates for care model

Develop associated workflows

Develop performance monitoring & evaluation


Inspired by Institute for Healthcare Improvement (IHI) BHLC Collaborative
21st Century Care: Population Health “Tiered” Delivery of Enhanced Care Management Services

Notes: Baseline period is July 2010 through June 2011. This initial "proof of concept" tiering algorithm was implemented by Milliman using CDPS predictive modeling tool thresholds to define tiers. Tier sizes were pre-determined according to estimated resource capacity. The attributed managed care population was identified through membership files, whereas the fee-for-service population was selected at a single point in time at the beginning of the time period and fixed for the duration. All attributed individuals were tiered. MM: Member months, PMPMs: Per member per month, PN: Patient Navigator, RN CC: Nurse Care Coordinators, PharmD: Clinical Pharmacist, eTouch: Health Text Messages Programs. Grant tiers (Beta version).

Citation: Johnson T, Estacio R, Vlasinsky T et al., "Augmenting Predictive Modeling Tools with Clinical Insights for Care Coordination Program Design and Implementation," eGEMS (Generating Evidence & Methods to improve patient outcomes). 2015 (In press.) Graphic developed by: Susan Moore, Kathy Thompson and Sarah Sabalot.
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Inspired by Institute for Healthcare Improvement (IHI) BHLC Collaborative
Who Do We Tier?

- All patients who have had a visit to a Denver Health facility in the previous 18 months (includes clinic visits, hospital, ED, urgent care, public health visits, etc.)
- Medicaid, Medicare, CHP Managed Care patients, regardless of whether they have been to DH or not
- Run daily, with full population refreshes monthly

# of Patients

<table>
<thead>
<tr>
<th>Category</th>
<th>Total # of Patients</th>
<th>CMMI Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Patients</td>
<td>251,602</td>
<td>139,877</td>
</tr>
<tr>
<td>Adults</td>
<td>163,961</td>
<td>71,829</td>
</tr>
<tr>
<td>Peds</td>
<td>87,641</td>
<td>68,048</td>
</tr>
</tbody>
</table>
Iterate to optimize population segmentation & patient identification

1. Assemble multi-disciplinary team
2. Choose macro accountable population
3. Develop risk stratification rules to define population segments (risks/tiers)
4. Evaluate financial stratification & clinical coherence of tiers
5. Develop care models for use within tiers
6. Identify individuals who are good candidates for care model
7. Develop associated workflows
8. Develop performance monitoring & evaluation

Inspired by Institute for Healthcare Improvement (IHI) BHLC Collaborative
CRG Status

CRG Status is a primary building block for constructing DH’s tiered population

<table>
<thead>
<tr>
<th>CRG Status Description</th>
<th>Avg. Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>61421 – Diabetes and Asthma – Level 1</td>
<td>$5,815</td>
</tr>
<tr>
<td>61426 – Diabetes and Asthma – Level 6</td>
<td>$41,346</td>
</tr>
</tbody>
</table>

CMMI Adults by CRG Status

1 - Healthy: 26,412
2 - History of Significant Acute Disease: 3,273
3 - Single Minor Chronic Disease: 4,496
4 - Minor Chronic Disease in Multiple Organ Systems: 1,427
5 - Single Dominant or Moderate Chronic Disease: 12,507
6 - Significant Chronic Disease in Multiple Organ Systems: 16,683
7 - Dominant Chronic Disease in 3 or More Organ Systems: 2,041
8 - Dominant, Metastatic and Complicated Malignancies: 558
9 - Catastrophic Conditions: 1,335
Adult Risk Stratification Using Predictive Risk Model and Recent Use

CRGs are primary basis for tier assignment

Utilization may override CRG-assigned Tier

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Inspired by Institute for Healthcare Improvement (IHI) BHLC Collaborative
## CRGs Provide Financial Stratification with Clinical Meaning

<table>
<thead>
<tr>
<th>CRG* Status</th>
<th>2012 Cohort average charges</th>
<th>2013 Cohort average charges</th>
<th>2014 Cohort average charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Healthy</td>
<td>$2859</td>
<td>$3,058</td>
<td>$1,940</td>
</tr>
<tr>
<td>2 - Acute Only</td>
<td>$5,686</td>
<td>$5,820</td>
<td>$3,450</td>
</tr>
<tr>
<td>3 – Single Minor Chronic</td>
<td>$5,243</td>
<td>$5,843</td>
<td>$3,213</td>
</tr>
<tr>
<td>4 – Multiple Minor Chronic Disease</td>
<td>$6,572</td>
<td>$7,055</td>
<td>$4,346</td>
</tr>
<tr>
<td>5 – Moderate Chronic Disease</td>
<td>$7,474</td>
<td>$7,571</td>
<td>$4,084</td>
</tr>
<tr>
<td>6 - Significant Multiple Chronic</td>
<td>$17,413</td>
<td>$18,437</td>
<td>$9,909</td>
</tr>
<tr>
<td>7 – Dominant Multiple Chronic</td>
<td>$45,277</td>
<td>$42,380</td>
<td>$29,353</td>
</tr>
<tr>
<td>8 - Cancer</td>
<td>$39,243</td>
<td>$48,771</td>
<td>$34,689</td>
</tr>
<tr>
<td>9 - Catastrophic</td>
<td>$81,538</td>
<td>$87,993</td>
<td>$48,372</td>
</tr>
</tbody>
</table>

Citation: Johnson T, Estacio R, Vlasimsky T et al., "Augmenting Predictive Modeling Tools with Clinical Insights for Care Coordination Program Design and Implementation," eGEMS (Generating Evidence & Methods to improve patient outcomes). August 2015. Vol 3:1(14)
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Inspired by Institute for Healthcare Improvement (IHI) BHLC Collaborative

Adult Risk Stratification Using Predictive Modeling and Clinical

- CRGs are primary basis for tier assignment
- Tier 1: n=31,490 (5%)
- Tier 2: n=27,325 (11%)
- Tier 3: n=7,411 (2%)
- Tier 4: n=3,266 (1%)
- CRGs 1 & 2: (94%)
- CRGs 3 & 4: (5%)
- CRGs 5 & 6: (43%)
- CRG 7: (60%)
- CRG 8: (3%)
- CRG 9: (3%)

- Adult High Risk (5%)
- Super Utilizers (40%)
- <= 3% of adults; 30% of facility costs

Utilization overrides CRG-assigned tier

“Super-Utilizers” are Stable in Number, BUT Individual Turn-Over is High

Population And Individual-Level Analyses of Adult Super-Utilizers in Denver County, Colorado, May 1, 2011–April 30, 2013

DATA NOTES: Authors’ analysis of data from the data warehouse of Denver Health. NOTES “Not in original cohort” is people who became super-utilizers after the study period began (members of all other categories were in the original cohort). “Will die” is people from the original cohort who died during the study period; some people who died also permanently or temporarily lost super-utilizer status. “Will lose and not regain status” is people from the original cohort who stopped being super-utilizers and did not regain that status during the study period. “Will lose and regain status” is people from the original cohort who stopped being super-utilizers and did regain that status during the study period. “Continuously met criteria” is people who met the criteria for super-utilizers throughout the study period. Some people classified as “not in original cohort” also died, permanently or temporarily lost super-utilizer status, or both during the study period. However, these super-utilizer status changes were not tracked. Only status changes affecting the original cohort are shown in the exhibit.

Iterate to optimize population segmentation & patient identification

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Inspired by Institute for Healthcare Improvement (IHI) BHLC Collaborative
Develop Work Flows: Daily Intensive Outpatient Clinic List
Iterate to optimize population segmentation & patient identification

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Inspired by Institute for Healthcare Improvement (IHI) BHL-C Collaborative
Why can’t we simply compare utilization/costs of before and after program enrollment?

This natural tendency for high-utilizing patients to become less high-utilizing over time is known as “regression to the mean”.

Charges reduced 44% & admissions reduced 53%, but NO clinical intervention was provided!
Evaluation: Total Cost of Care
Analysis Sample ("Mocked-Up") Data

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<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Baseline + Trend</th>
<th>Actual</th>
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<tbody>
<tr>
<td>Savings</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Inpatient</td>
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<tr>
<td>ED</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other</td>
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<td></td>
<td></td>
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<tr>
<td>Specialty</td>
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<tr>
<td>Primary Care</td>
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</tr>
</tbody>
</table>
```

"Savings" ~ $7m
Macro-Targeting Lessons Learned

• Gaining clinician buy-in
  – Transparency
  – Focus on avoidable hospitalizations
  – Clinical design control

• Identifying target population
  – Claims data useful for population analysis
  – Provide real-time (not claims) data for clinical action
  – Balance predictive analytics & clinical insight
  – Balance short-term & long-term goals

• Payment model/perverse incentives
  – Modified productivity standards
Micro-Targeting Lessons Learned
Super-Utilizer Program Implications

• Real-time identification is critical
  – Billing data is helpful for descriptive analysis but “too old” for program identification
  – Window of opportunity may be short

• Where, when, how to intervene must be matched to the target population
  – Subpopulations differ by primary care use, reasons for utilization, and cost trajectory
  – Non-target populations are likely to be identified
  – Many super-utilizers are not currently engaged in primary care
State Medicaid Opportunities

• Regulatory approach
  – Process vs. outcomes orientation
  – Flexibility vs. standardization

• Data analytics
  – Facilitate access to real-time data on high-risk patients
  – Obtain clinical input to define what is a “high risk” patient
  – Facilitate access to raw data (for further analysis at clinical sites)

• Payment model
  – Advanced systems will want capitation/global payment ASAP
  – Managed FFS (PMPM care coordination payments) should focus on outcomes (less on qualified providers, workflow)
Acknowledgements and Disclaimers

- Core Team, Clinical Teams, IT Team, Evaluation Team, ACS and Executive Leadership (past and present)
- Denver Health’s 21st Century Care project is supported by Grant Number 1C1CMS331064 from the Department of Health and Human Services, Centers for Medicare & Medicaid Services.
- The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of the U.S. Department of Health and Human Services or any of its agencies.
- The analysis presented was conducted by the awardee. Findings may or may not be consistent with or confirmed by the findings of the independent evaluation contractor.
- The Colorado Multiple Institutional Review Board determined this project to be Quality Assurance, Not Human Subject Research.
Contact Information

• Thank you!
• Contact information
  – Holly Batal, MD, MBA
    – Holly.Batal@dhha.org
    – Co-PI, Clinical Lead
  – Tracy Johnson, PhD, MA
    – Tracy.Johnson@dhha.org
    – Co-PI, Evaluation Lead
Mobilizing Social Determinants Data to Target BCN Interventions and Improve Health Outcomes

Ruben Amarasingham, MD, MBA
President and CEO
PCCI & Pieces Technologies, Inc.
Dallas, Texas
Who We Are

**PCCI**
We are a non-profit that uses scientific research & applied analytics to improve the quality, efficiency and experience of health care, at Parkland Health & Hospital System, Dallas, and beyond.

[pcicipieces.org](http://pcicipieces.org)

**Our Mission**
To reimagine and expand the knowledge-base of healthcare delivery in the age of machines.

**Our Vision**
A world where every clinical outcome is positive.

**Our People**
Physicians, Data Scientists, Quality & Safety Science, Community Engagement Professionals
The Role of Social Determinants in Health

- Health Behaviors: 30%
- Social, Economic, Environmental: 50%
- Clinical Care: 20%

Our Approach: Modeling Adverse Events Across a Time Scale
Our Approach: Modeling Adverse Events Across the Time Scale

Identification
Using Natural Language Processing to identify: Homelessness, substance abuse, behavioral health issues, social support, address changes, personal chaos

Prediction
What is the risk? What is the nature of the risk?

Activation
What resources or services need to be activated?

Monitoring
Are we on path?

Learning
What can we learn?

Pieces™
EMR
# Modeling Use Cases

<table>
<thead>
<tr>
<th>Emergency</th>
<th>Hospital Operations</th>
<th>Population Health</th>
<th>Medical / Surgical</th>
<th>Oncology</th>
<th>Medication Administration</th>
<th>Infectious Disease</th>
<th>Perinatal</th>
<th>Social Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED complex case management</td>
<td>Real-time discharge modeling (Fall 2016)</td>
<td>Readmissions suite v 2.0 with context</td>
<td>Inpatient Deterioration (Fall 2014)</td>
<td>Avoidable hospital</td>
<td>Medication non-compliance</td>
<td>Neonatal blood stream infection</td>
<td>Access to care barriers</td>
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<tr>
<td>Preventable ED utilization</td>
<td>High bed capacity days (Summer 2016)</td>
<td>Avoidable Hospitalization</td>
<td>Burn Sepsis</td>
<td>Advanced Care Planning</td>
<td>Complex medications or medication list</td>
<td>Neonatal care-associated infection</td>
<td>Homelessness</td>
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<tr>
<td>High utilizor identification</td>
<td>Patient flow (Fall 2016)</td>
<td>CKD progression</td>
<td>Slow-healing wounds</td>
<td>Appropriate diagnostic and procedure utilization</td>
<td>Abx Stewardship through ID of false allergies</td>
<td>Late sepsis</td>
<td>Substance abuse</td>
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<td></td>
<td>ICU modeling (Fall 2014)</td>
<td>Diabetes Management</td>
<td>Complication s from Procedures</td>
<td>Surgical Failure to Rescue</td>
<td>Opioid Abuse</td>
<td>Meningitis</td>
<td>Environmental stressors</td>
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<td></td>
<td>OR modeling</td>
<td>HTN Management</td>
<td>SSI</td>
<td>SSI</td>
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<td>C-section SSI</td>
<td>Community Based Referral prediction</td>
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<td>Chart reviews for QI and Federal reporting</td>
<td>HTN Management</td>
<td>Blood incompatibility</td>
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Complexities of Predictive Modeling in Healthcare

Implementing Electronic Health Care Predictive Analytics: Considerations And Challenges

ABSTRACT The use of predictive modeling for real-time clinical decision making is increasingly recognized as a way to achieve the Triple Aim of improving outcomes, enhancing patients' experiences, and reducing health care costs. The development and validation of predictive models...

The Legal And Ethical Concerns That Arise From Using Complex Predictive Analytics In Health Care

ABSTRACT Predictive analytics, or the use of electronic algorithms to forecast future events in real time, makes it possible to harness the power of big data to improve the health of populations and to shape the manner in which health care is provided. These advancements require a new understanding of the legal and ethical landscape.
It’s not enough to quantify risk: the intervention must match the need
However..

Population health is often impacted by social determinants outside of a health system’s walls.
Community Based Organizations (CBO) Address These Social Determinants of Health

- Crisis and Emergency
- Food
- Transportation
- Housing and Utilities
- Health and Hospice
- Human Trafficking
- Jobs and Support
- Legal
- Special Needs
- Youth Counseling
- Seniors
..But CBOs are Fragmented, Technology Scarce, and Disconnected from Health Systems
Critical Technology Needs to Connect the Care Continuum
Tracking & Coordinating Across the Continuum of Care

LONGITUDINAL PATIENT TRACKING

We envision a connected community – Iris connects patients and service providers to support continuous information and a continuum of care.

pCCI
PCCI Related Work:
The Dallas Information Exchange Portal
PCCI’s work in this area is available for Download

PCCI’s playbook & environmental scan report and the playbook are available for download at:

[Link to Report]

Dr. Ruben Amarasingham
@RAmarasingham

Contact PCCI:

@PCCIPieces
/company/pcci
lindsey.duda@phhs.org
District of Columbia

Joe Weissfeld, MPP
Department of Health Care Finance
Government of the District of Columbia
Proposed My Health GPS Overview

• **Target population:** ~25,000 beneficiaries (primarily fee-for-service)

• **Eligibility:** 3 or more chronic conditions

• **Enrollment:** Patients will be assigned to a My Health GPS provider through an opt-out, with utilization trigger process. Patient attribution to My Health GPS provider will be based on a prior provider/patient relationship (up to a 2 year look-back), geography, provider capacity

• **Target Start Date:** April ‘17
Identification of My Health GPS Target Population

• Population Profiling and Analytics
  – Necessary Data
    • Claims data
      – To target populations/conditions
      – To determine eligibility
      – To tier by acuity
      – To identify potential providers
      – To provide “mock attributions”
      – To attribute to providers
    • Medicare data for dual eligibles
    • Historical, national Medicaid data for a risk assessment tool

• Incentive Payment Structure
  – Care Plan Incentive and P4P
Top 5 Data and Data Analytics Challenges

1. Lack of cohesive data compatibility and data sharing across District agencies as well as across District service providers.

2. Lack of access to timely, high-quality historical claims data for our beneficiaries and/or a business analytics or risk assessment tool (however, we are in the process of launching a Data Warehouse).

3. Lack of internal data analytics capacity and expertise.

4. Difficulty operationalizing a sensitive, responsive tool that is will be utilized by end-users.

5. Difficulty balancing the powerful opportunity with CMS-Implementation Advanced Planning Document funds and the unpredictable nature of receiving approvals.
Oregon

Jennifer Valentine, MSPH
Dual Eligibles/Medicare Medicaid
Health Services Division
Oregon Health Authority
Oregon Project Overview

- Initial focus on dual eligible beneficiaries as population with high prevalence of complex chronic and behavioral health conditions compared to the overall Medicaid population
- Expanded focus to complete a deeper dive on Oregon’s Medicaid super utilizer population
- Brought diverse data sets together:
  - Medicare data from Oregon’s All-Payer All-Claim Database (APAC) including Medicare Advantage
  - Oregon’s Medicaid data
  - Medicare FFS data files from RESDAC
- Two-Phased Approach
  - Phase 1: Population Profile
  - Phase 2: Regression Analysis

https://www.oregon.gov/oha/analytics/Pages/All-Payer-All-Claims.aspx
Methodology

• After numerous conversations, we decided to take a two-phased approach to defining Oregon’s super-utilizer population.

• Because no standard definition of super-utilization currently exists, we drew on a review of published literature, conversations with other BCN IAP teams, and discussions with the Oregon Health Authority’s Office of Health Analytics team to define super-utilizers.

• Since our project started as a look at Oregon Dual Eligibles, we decided to incorporate dual eligibles into our superutilizer analysis.
Phase I - Definitions

• Several themes emerged from background work
  1. **High users that can be targeted for intervention.** Large numbers of visits for any reason put strain on the healthcare system, but high numbers of preventable ED visits are a clear target for interventions.
  2. **Repeated vs. time-limited high use.** Interventions for patients with repeated high utilization can differ from those for patients with time-limited high utilization.
  3. **Role of mental health.** Discussion with Oregon Health Authority staff suggested that this may be an important factor related to high utilization in Oregon.
  4. **Medicaid expansion.** Discussion with Oregon Health Authority staff revealed that the Medicaid expansion population was a topic of interest.
Accomplishments: Phase 1

• Themes from background work:
  – Focus on high users that can be targeted for intervention. Repeated vs. time-limited high use.
  – Role of mental health.
  – Medicaid expansion.

• We stratified 9 groups of high ED Users

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<tr>
<th>ED VISIT PATTERN</th>
<th>Traditional Medicaid Population</th>
<th>Medicaid Expansion Population (2014 only)</th>
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<tr>
<td></td>
<td>Temporary (2013 only)</td>
<td>Persistent (2013 &amp; 2014)</td>
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<td>4+ ED visits of any kind per year</td>
<td>Group 1</td>
<td>Group 4</td>
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<td>Group 7</td>
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<td>4+ avoidable ED visits per year</td>
<td>Group 2</td>
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<td>Group 8</td>
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<td>4+ ED visits for mental health conditions per year</td>
<td>Group 3</td>
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<td>Group 9</td>
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Question and Answer

Juan Montanez, Facilitator
To Ask a Question or Make a Comment

- Use the chat box on your screen to ask a question or leave comment
  - Note: chat box will not be seen if you are in “full screen” mode
  - Please exit out of “full screen” mode to participate in polling questions

- Ask a question verbally by dialing *1. You will be connected to the webinar operator, who will connect your line so that you can ask your question.
Topic Wrap Up

Juan Montanez
Key Takeaways

1. Incorporating medical health, behavioral health and social/human needs data in the methodology/algorithm for targeting and stratification is ideal, and becoming more doable as information systems become more interoperable and data exchange standards become more prevalent.

2. Building a continuum of BCN data that supports targeting, stratification, care plan development and measurement is ideal, and also becoming more doable as advancements in information technology and exchange take hold and greater collaboration across data stewards occurs.

3. States should dedicate efforts to develop a feasible strategy for obtaining and using data from an expanded set of sources including non-clinical sources.

4. A better understanding of the federal and state laws and regulations that govern information access, use and exchange is critical to the success of any BCN initiative.
Closing Remarks

Karen LLanos
Closing Remarks

• National Dissemination Series continues:
  – December 12, 2016: Factoring Social Determinants into Strategies for BCNs
  – January 9, 2017: Effective Care Management Strategies for BCNs
  – February 27, 2017: Employing Alternate Payment Strategies for BCNs
  – All sessions are scheduled for 2:00 p.m.-3:30 p.m. ET

• Resources
  – Upcoming T-MSIS based tools for states from IAP Data Analytics
  – CMS’s State Data Resource Center for Medicaid agencies interested in Medicare data access

• Please complete the post webinar evaluation