Improving Service Delivery for High Need Medicaid Clients in Washington State Through Data Integration and Predictive Modeling

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- Program costs are often driven by a small proportion of patients with multiple health conditions, often exacerbated by mental illness, substance use disorders, cognitive limitations or functional impairments.

- High-cost clients are often served in multiple Medicaid-funded delivery systems (medical, long-term care, mental health, substance abuse, developmental disabilities).

- High-cost clients often have significant social support needs such as the need for housing or employment support, or interventions to reduce the risk of criminal justice involvement.

- Persons dually eligible for Medicare and Medicaid comprise a disproportionate share of high-risk, high-cost Medicaid beneficiaries.

- Increased emphasis on quality/outcome measurement and performance-based payment structures.

- States need analytic capability that goes beyond traditional data warehousing and business intelligence applications.
Washington’s RDA Integrated Client Databases

WASHINGTON STATE Department of Social and Health Services

Integrated Client Databases

DSHS | Research and Data Analysis

WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES
Using integrated data in predictive modeling for care management

- PRISM
PRISM Screens

**Risk Factors**  Key medical and behavioral health risk factors
**IP Risk Model**  Prospective hospital admission risk model
**Adherence**  Medication adherence dashboard
**Eligibility**  Detailed eligibility and demographic data
**Claims**  All medical claims and encounters
**Office**  Office visits
  **Rx**  Prescriptions filled
  **IP**  Inpatient admissions
  **ER**  Outpatient emergency room visits
  **LTC**  Long term care services
  **SNF**  Skilled nursing facility services
  **Lab**  Laboratory
**Providers**  Provider list with links to contact information
**SUD**  Substance use disorder treatment
**MH**  Mental health services
Uses of PRISM

- **Triaging high-risk populations** to more efficiently allocate scarce care management resources

- **Intuitive and easily accessible source of patient health and social service data for clinicians and case managers**

- **Informing care planning and care coordination for clinically and socially complex persons**

- **Identification of child health risk indicators for high-risk children** (mental health crisis, substance abuse, ED use, nutrition or feeding problems)

- **Identification of behavioral health needs** (redacting information where required by state or federal law)
Uses of PRISM continued

- Identification of other potential barriers to care:
  - Patient’s housing status (e.g., whether they are homeless)
  - Hearing impairment
  - Non-English primary language

- Access to treating and prescribing provider contact information for care coordination

- Creation of child health summary reports for foster parents and pediatricians

- A source of regularly updated contact information from the medical eligibility determination process to support patient outreach and engagement efforts
Uses of PRISM continued

- Medication adherence monitoring
- Identification of potential narcotic drug-seeking behavior
- Identification of psychotropic medication polypharmacy patterns associated with overdose risk
- Monitoring health plan compliance with contractual requirements
- Plan- and provider-level quality improvement program support
- Service authorization and utilization review
- Medical evidence gathering for determining eligibility for disability programs
Early returns show promise

**Chronic Care Management evaluation**
- Modest net savings
- Driven by reduced Hospital IP and SNF costs
- Reduced mortality
- Increased patient satisfaction

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**Cost Detail**

Estimated per member per month impact

- **OVERALL Savings**: $27
- **Medical Costs**: + $46
- **Long-term Care Costs**: + $180
- **Intervention Costs**: $253

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http://publications.rda.dshs.wa.gov/1396/
Questions?

http://www.dshs.wa.gov/rda/