

OUD and Treatment Research in VHCURES, Vermont's All-Payer Claims Database

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November 14, 2018

The Blueprint for Health 101

- Health care reform initiative expanded statewide in 2010 by Statute; mandatory Medicaid and commercial payer participation, Medicare voluntarily participates.
- Supports primary care transformation to NCQA-recognized patient-centered medical homes
- Supported by regional Program Managers, Quality Improvement Facilitators, and multi-disciplinary Community Health Teams

Hub and Spoke System of Care 101

- Medicaid State Plan Amendment to implement Health Home Model with greater coordination between Opioid Treatment Programs (Hubs) and Office-Based Opioid Treatment sites (Spokes).
- Enhanced care coordination within and across Hub and Spoke settings
- Spoke Staff: 1 nurse and 1 licensed mental health/addictions counselor for every 100 Medicaid patients
- Buprenorphine administered in Hubs in addition to methadone

Evaluation of Medicaid and Medication- Assisted Therapy: Baseline Study

- Study population: members with full Medicaid, ages 18-64 with claims in VHCURES indicating treatment for opioid addiction
- Intervention Group: claims data for either of the two primary drugs used in MAT – methadone and buprenorphine
- Control Group: no claims for MAT, but had at least two opioid addiction diagnoses on different dates of service; treatment included individual and group outpatient settings, intensive outpatient settings, partial hospitalization, detoxification, and residential treatment services.

Expenditures	MAT group	Non-MAT	Difference	P-value
Total expenditures	\$14,468	\$14,880	-\$412	0.07
Total expenditures without treatment	\$ 8,794	\$11,203	-\$2,409	<0.01
Buprenorphine expenditures	\$2,708	-\$47	\$2,755	<0.01
Total prescription expenditures	\$4,461	\$2,166	\$2,295	<0.01
Inpatient expenditures	\$2,132	\$3,757	-\$1,625	<0.01
Outpatient expenditures	\$345	\$604	-\$259	<0.01
Professional expenditures	\$674	\$981	-\$307	<0.01
SMS expenditures*	\$2,872	\$4,160	-\$1,288	<0.01
Utilization (rate/1,000)	MAT group	Non-MAT	Difference	P-value
Inpatient days	1.54	3.00	-1.46	<0.01
Inpatient discharges	0.30	0.52	-0.22	<0.01
ED visits	1.44	2.48	-1.04	<0.01
Primary care physician visits	15.27	9.81	5.46	<0.01
Advanced imaging	0.29	0.54	-0.25	<0.01
Standard imaging	0.76	1.43	-0.67	<0.01
Colonoscopy	0.01	0.02	-0.01	<0.01
Echography	0.46	0.53	-0.07	0.002
Medical specialist visits	0.49	0.82	-0.33	<0.01
Surgical specialist visits	3.04	1.89	1.15	<0.01

Table 2. Adjusted average annual expenditures and utilization rates among Medicaid enrollees identified with opioid misuse or abuse †

*SMS refers to special Medicaid services and include transportation, home and community-based services, case management, dental, residential treatment, day treatment, mental health facilities, and school-based services.

†Multivariable regression analysis, adjusted for gender, age, calendar year, clinical risk groups, Medicaid in the prior year, hepatitis C virus (HCV) status, and maternity.

Evaluation of Hub and Spoke System of Care: Current Study

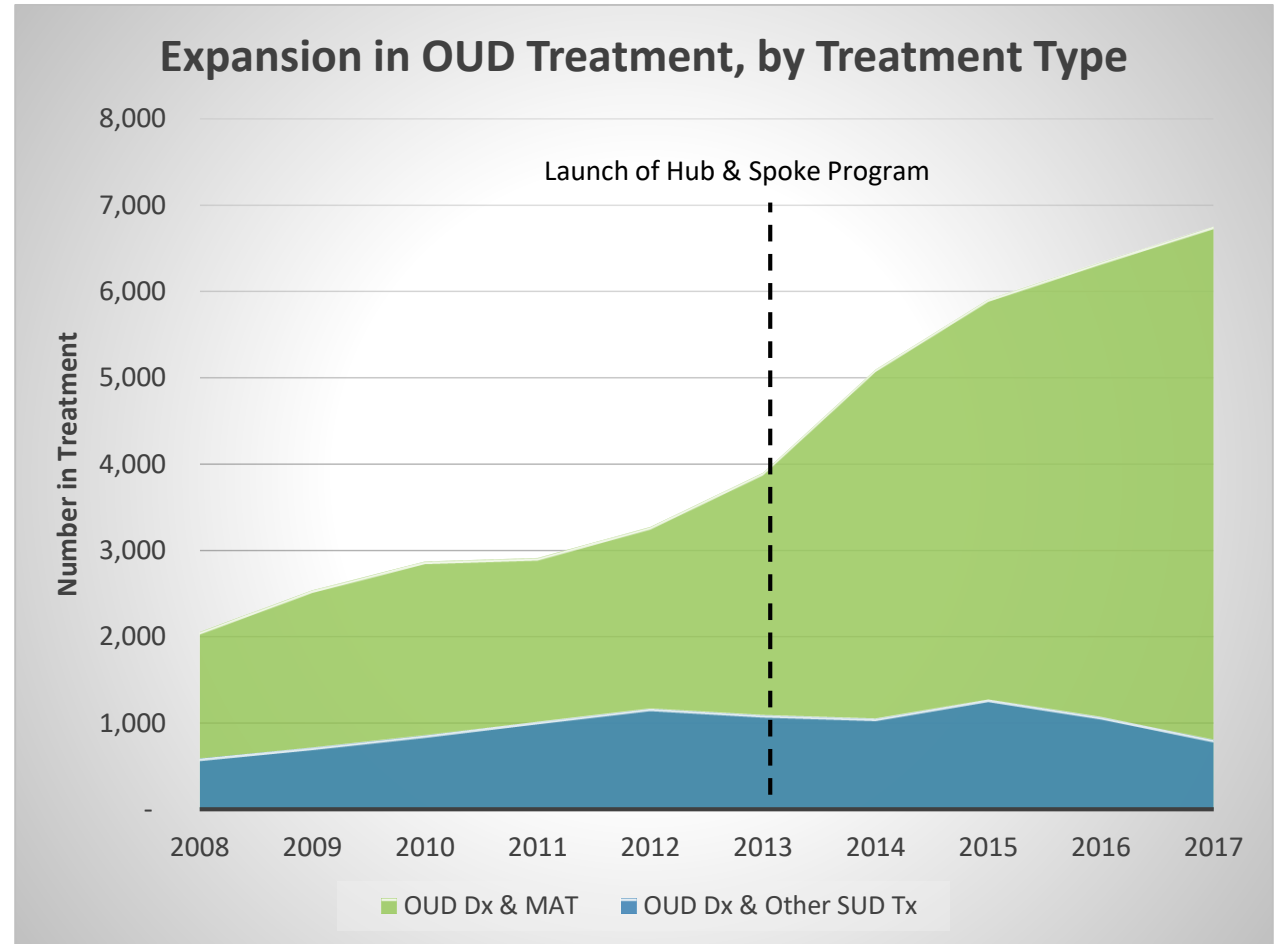
- Study Question: With statewide expansion of a system for OUD treatment with MAT as the standard of care, what were the trends in health care service expenditures and utilization for Medicaid enrollees with an OUD diagnosis receiving treatment in this system relative to those receiving non-MAT forms of treatment?
 - **Goal** to understand the impacts of a state's policy decision.
- Populations:
 - Medicaid enrollees with an OUD diagnosis
 - Those receiving MAT
 - Those receiving non-MAT treatment
 - Benchmark population: Medicaid enrollees without an OUD diagnosis
- Method: Serial cross sectional descriptive analysis

Using APCD Claims

- Inclusion and Exclusion Criteria
 - Ages 18-64 (eligibility records)
 - Medicaid enrollees, including Medicare dual-eligible (eligibility records)
 - Exclude members institutionalized in long term care facilities (category of service, type of bill, and provider specialty codes)
 - Diagnosis for Opioid Use Disorder (ICD9 and ICD10 diagnosis codes)
- Assignment to Hub, Spoke, or other treatments
 - Hub procedure codes (CPT/HCPCS)
 - Spoke prescription fills in pharmacy claims (NDC)
 - Other treatment procedure codes (CPT/HCPCS)

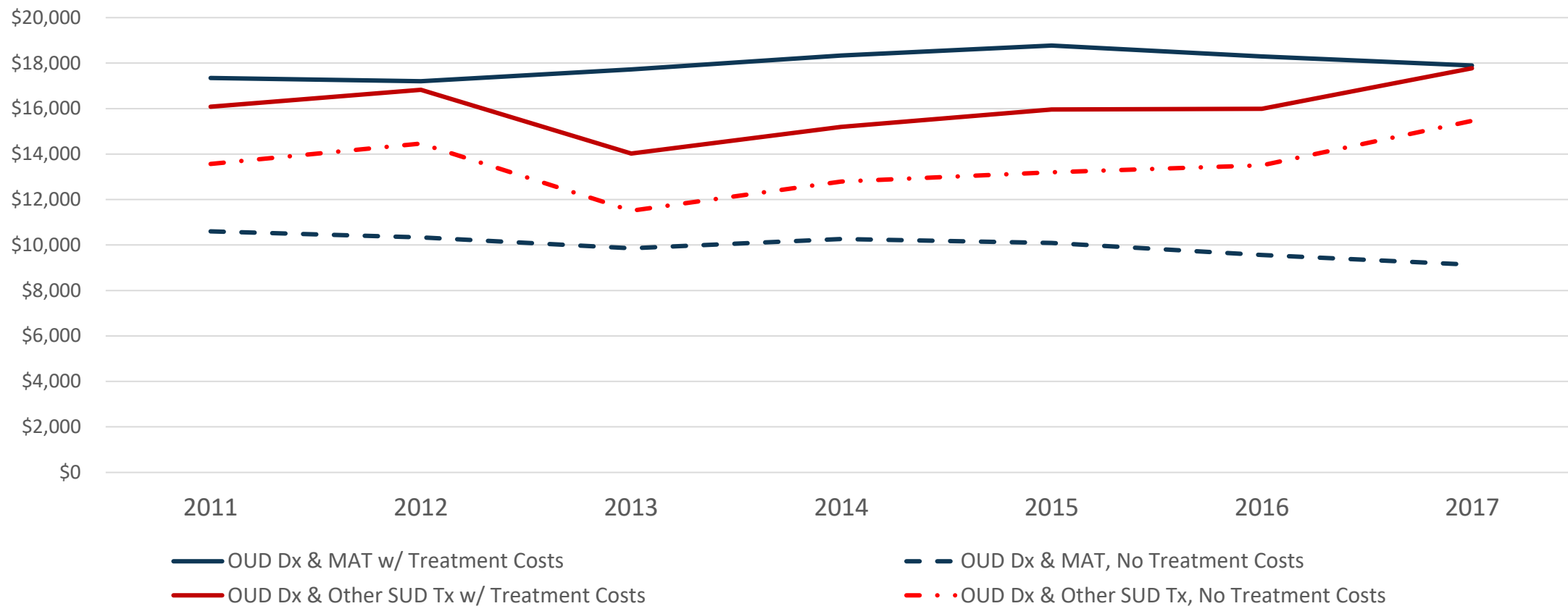
Outcomes

- Membership Trends
- Demographics
 - Age, gender, comorbidities
- Expenditures with and without treatment costs
- Emergency Department and Inpatient Discharges
- Linked claims and Incarceration Data
- Urinalysis Expenditures

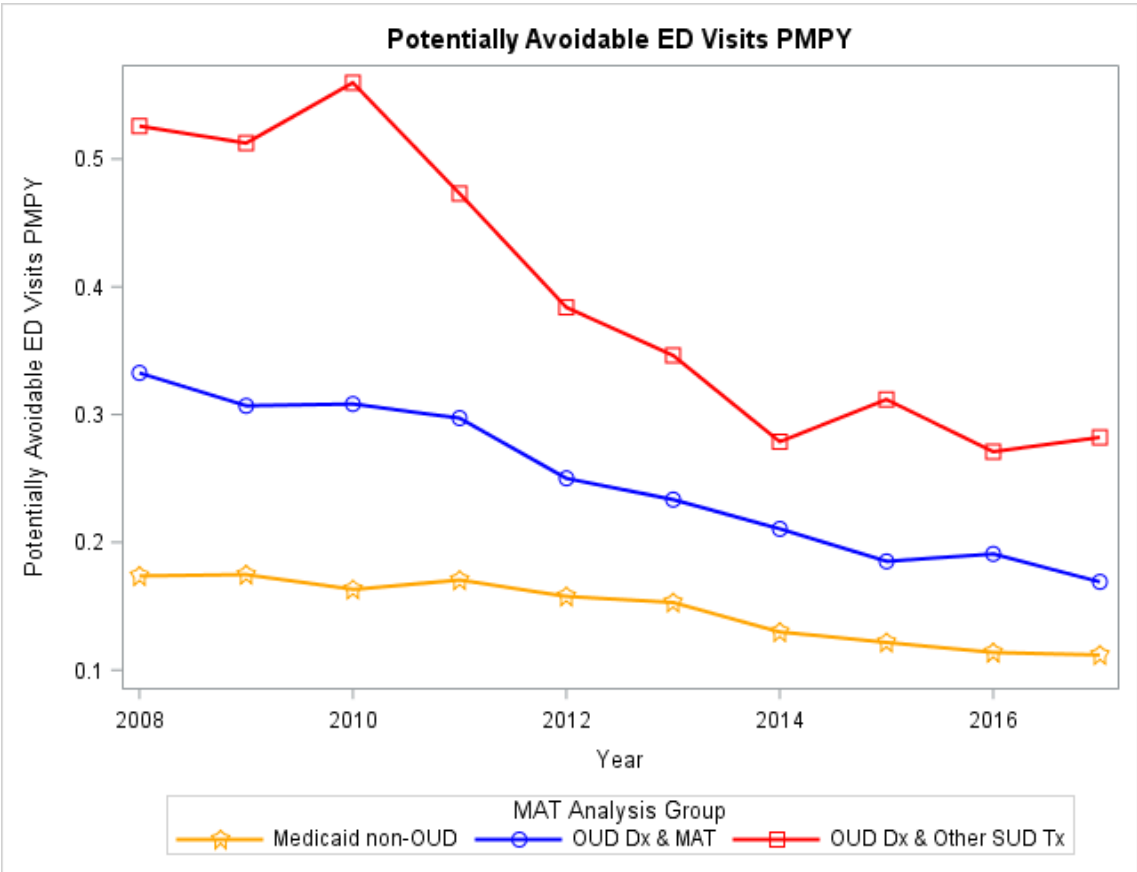
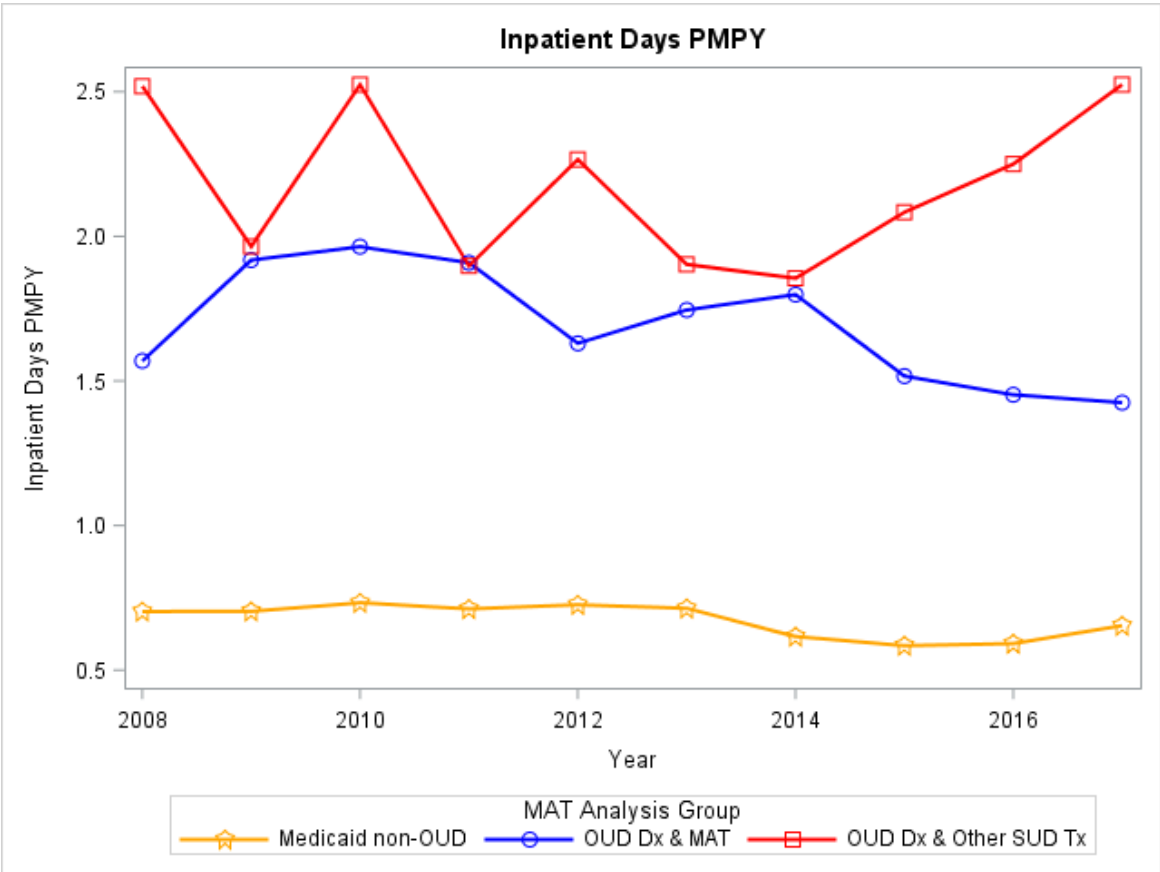


Expenditures Trends

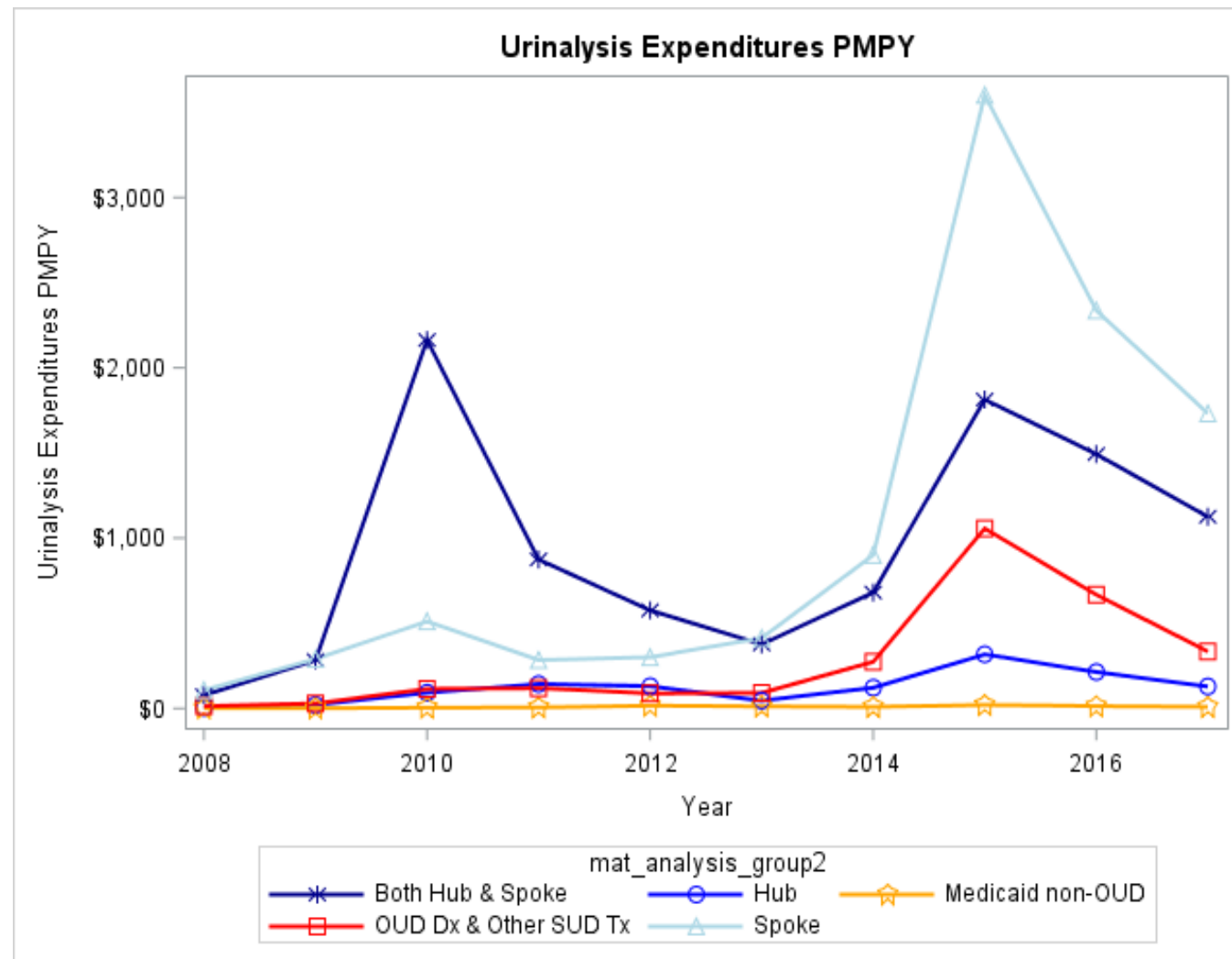
Expenditures for Populations with OUD, Including and Excluding Treatment Costs, Unadjusted



Examples of Utilization Trends



Other Factors...



Questions?

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