CASTING THE NET TOO WIDE:
COLORADO’S STI/HIV AND VIRAL HEPATITIS MEDICAID EXPERIENCE

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Getting the Data

- CDPHE has inter-agency agreement with Health Care Policy and Finance (HCPF) to receive identified Medicaid claims data
- After several discussions, the STI/HIV/VH Branch was granted access to Medicaid Claims data

“in accordance with Colorado Revised Statute: 24-4-1402 for the treatment, control and investigation of HIV infection under 24-4-1404 (b)”
Case Finding in Colorado
- Second resource to ensure reporting regulations are being followed and all cases of HIV are reported and investigated in Colorado

Additional Analyses
- Assessment among the Medicaid population to changing patterns of care in light of the ACA
- Assess linkage to or retention in care among Medicaid population to assess possible gaps in care over time
- Assess level of Hepatitis C treatment among population of Medicaid recipients who are HIV +
Initial Data Set Submitted by HCPF

- Initial data set sent May 2015
- Included Medicaid Clients with evidence within the past 5 years of HIV infection
  - Presence of ICD Codes
    - 042.0/B20 (Symptomatic HIV Infection)
    - V08/ Z21 (Asymptomatic HIV Infection)
Final Medicaid Cohort submitted to STI/HIV Surveillance (N=11,712)

- Known HIV Cases (36%)
- Known in STI Surveillance System (2%)
- Not Known to CDPHE (62%)

Matched to eHARS using Link King (probabilistic matching)

Includes claims during CY 2014 – CY 2015
Includes ICD-9 and ICD 10 Codes
Demographic Inconsistencies with HIV Epidemiology

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>HIV Epi Data (2015)</th>
<th>Medicaid Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>88.8 %</td>
<td>52.7 %</td>
</tr>
<tr>
<td>Female</td>
<td>11.2 %</td>
<td>47.3 %</td>
</tr>
<tr>
<td>Ages 24 years and Younger</td>
<td>2.3 %</td>
<td>32.6 %</td>
</tr>
<tr>
<td>Ages 40 years and Older</td>
<td>77.8 %</td>
<td>39.4 %</td>
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</tbody>
</table>

What Happened??
Review Requested Codes

- **Major Code Categories**
  - HIV Specific Diagnosis Codes (B20, 042, Z21, V08)
  - Pregnancy Codes (HIV and Non HIV Specific)
  - Opportunistic Infection Codes
  - Hepatitis Codes
  - Sexually Transmitted Infection Codes
  - Psychosocial Codes (Substance Use and Mental Health)
  - General Disease Codes / Possible HIV
  - Possible PrEP Related Codes
  - Counseling Codes
  - Medical Examination Codes
What were the “Bad” Codes?

- Codes with a much higher chance of being associated with Medicaid clients that did not link to eHARS
  - Non HIV specific pregnancy codes
  - Some Opportunistic Infections codes (TB, Herpes Zoster, CVM, Chlamydia Infections (Non-STI and STI), Candidiasis (Vaginal, Esophageal and Oral)
  - Screening for Human Papillomavirus (HPV)
  - Substance Abuse (including counseling)
  - Medical Examination Codes
Medicaid Data use #1: What did we find?

- Ensure reporting regulations are being followed and all cases of HIV are reported and investigated in Colorado
Medicaid Clients with HIV codes that did not match to eHARS

- Total Number of Medicaid Client with HIV codes that did not link to eHARS N=1,685 (14.4%)
- Grouped by ICD codes associated with claims (Major groups presented only)
  - Possible Exposure to HIV (N=100)
  - HIV Lab Only (N=712)
  - Non Specific Evidence of HIV (N=35)
  - Post Exposure Prophylaxis (N=45)
  - Possible Pre-exposure Prophylaxis (N=60)
  - Possible HIV + (N=234)
<table>
<thead>
<tr>
<th>Category</th>
<th>Linked to HIV Medication Prescription</th>
<th>Not Linked to HIV Medication Prescription</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. (%)</td>
<td>No. (%)</td>
<td>No.</td>
</tr>
<tr>
<td>Matched to eHARS</td>
<td>2,713 (64.7)</td>
<td>1,480 (35.3)</td>
<td>4,193</td>
</tr>
<tr>
<td>Matched to PRISM</td>
<td>0 (0.0)</td>
<td>219 (100.0)</td>
<td>219</td>
</tr>
<tr>
<td>Possible HIV + Not Linked to eHARS</td>
<td>8 (3.4)</td>
<td>226 (96.6)</td>
<td>234</td>
</tr>
<tr>
<td>Possible PrEP Client</td>
<td>60 (100.0)</td>
<td>0 (0.0)</td>
<td>60</td>
</tr>
<tr>
<td>Possible PEP Client</td>
<td>45 (100.0)</td>
<td>0 (0.0)</td>
<td>45</td>
</tr>
</tbody>
</table>

* Consists of 13 possible sero-reverters and 4 Possible Viral Hepatitis + Medicaid Clients
Characteristics of Possible HIV + not in eHARS (N=234)

- Presence of Symptomatic HIV ICD code – 55%
- Presence of Asymptomatic HIV ICD code – 60%
- HIV Antibody Test Codes – 32%
- HIV Viral Load Testing Codes – 8%
- Mental Health Codes – 61%
- Substance Abuse Codes – 58%
- STI Codes – 16%
- Hepatitis Codes – 28%
Characteristics of Possible HIV + not in eHARS (N=234)

- **Demographics**
  - 65% Male
  - 40% White, 17% Hispanic, 13% Black
  - 12% Ages 30-34
  - 36% Live in Denver County
  - A total of 8 of the 234 individuals also had an HIV Medication Prescription Claim
Characteristics of Possible HIV + not in eHARS (N=234)

- To date 70 out of the 234 have had medical record reviews using CORHIO (Colorado Regional Health Information Organization)
  - 7 Medicaid clients have significant history of HIV and were though to have been previously diagnosed in a different state
  - 44 Medicaid clients had HIV diagnostic code, but non-reactive HIV test results
  - 17 Medicaid clients had HIV diagnostic code but no HIV tests in laboratory results
  - 2 Medicaid clients’ records not found in CORHIO
Accidental Discovery

#PrEPWORKS

Proud to be Prepped
Characteristics of Possible PrEP Clients (N=60)

- Codes with a much **higher chance** of being associated with Possible PrEP Medicaid clients
  - (Prescription claims for Truvada only-no other HIV medications)
  - Exposure to HIV
  - Screening for HIV
  - Gonococcal Infection, site not otherwise specified (NOS)
  - Exposure to STD
  - Substance abuse counseling
  - Contact with or exposure to unspecified communicable disease
  - Other specified prophylactic Measure
  - High Risk Sexual Behavior
# Characteristics of Possible PrEP Clients (N=60)

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Most Common ICD Code</th>
<th>Second Most Common ICD Code</th>
<th>Third Most Common ICD Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 Days prior to Truvada Rx (N=780)</td>
<td>Contact or Exposure to Other Viral Disease (19%)</td>
<td>Psychosexual Disorders (11%)</td>
<td>Tobacco Use Disorder (13%)</td>
</tr>
<tr>
<td>Within 3 Months of Truvada Rx (N=523)</td>
<td>High Risk Sexual Behavior (30%)</td>
<td>Unspecified Viral Hep C (11%)</td>
<td>Unspecified Viral Hep C (14%)</td>
</tr>
<tr>
<td>Within 6 Months of Truvada Rx (N=705)</td>
<td>High Risk Sexual Behavior (33%)</td>
<td>High Risk Sexual Behavior (14%)</td>
<td>Long Term Use of Other Medications (16%)</td>
</tr>
<tr>
<td>Within 9 Months of Truvada Rx (N=454)</td>
<td>High Risk Sexual Behavior (35%)</td>
<td>High Risk Sexual Behavior (21%)</td>
<td>HIV Counseling (29.0)</td>
</tr>
</tbody>
</table>
Providers Associated with Possible PrEP Clients (N=60)

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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Denver Health &amp; Hospitals</strong></td>
<td><strong>University Hospitals</strong></td>
</tr>
<tr>
<td><strong>Poudre Valley Health Care Inc. / Poudre Valley Medical Group LLC</strong></td>
<td><strong>Children's Hospital Colorado</strong></td>
</tr>
<tr>
<td><strong>Catholic Health Initiatives Colorado</strong></td>
<td><strong>Rocky Mountain Planned Parenthood</strong></td>
</tr>
<tr>
<td><strong>Fort Collins Women’s Clinic PC</strong></td>
<td><strong>Kaiser Foundation Health Plan of Colorado</strong></td>
</tr>
<tr>
<td><strong>Metro Community Provider Network</strong></td>
<td><strong>Clinica Campesina Family Health</strong></td>
</tr>
<tr>
<td><strong>Plan De Salud Del Valle Inc.</strong></td>
<td><strong>McKee Medical Center</strong></td>
</tr>
<tr>
<td><strong>Total Health Care</strong></td>
<td><strong>Colorado Urgent Care LLC</strong></td>
</tr>
<tr>
<td><strong>South Federal Family Practice PC</strong></td>
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Medicaid Data – Next Steps

- Refine the ICD codes used to pull Medicaid claims
  - removal of “other viral” codes, High risk pregnancy, long term use of medications codes and general medical visit codes
- Continue specific analyses using Medicaid data to determine how the ACA has impacted ADAP clients
- Use Medicaid data to determine is some clients thought to be part of the “Not In Care” group for the Colorado HIV Care continuum
- Apply algorithms used to isolate possible Medicaid PrEP clients to the larger All Payer Claims data set
Questions & Discussion