Changes in Ryan White Clinic Referral Patterns among HIV-infected Patients Following Implementation of the Affordable Care Act

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\textbf{Background}

- The Affordable Care Act (ACA) was enacted on March 23, 2010 mandating insurance coverage and expanding Medicaid coverage. The ACA and Medicaid expansion took effect in Kentucky in 2013.
- The ACA permits states to provide Medicaid for individuals at or below 138% of the federal poverty line with federal funding for three years after enactment.
- The Kentucky uninsured rate has fallen from 14.3% (approximately 616,000) in 2013 to 6.1% (approximately 261,000) in 2015 (USDC, 2016).
- As of June 2017 the total number of diagnosed people living with HIV (PLWH) in Kentucky is 10,244 (CHFS, 2016).
- The University of Kentucky Bluegrass Care Clinic (UK BCC) is a federally funded Ryan White HIV/AIDS clinic that serves 63 counties in central and eastern Kentucky.
- The purpose of this study was to evaluate the impact of the ACA on referrals to care for people living with HIV (PLWH) in states that adopted the Medicaid expansion.

\textbf{Methods}

- This study examined 1,022 newly enrolled patients between March 24, 2010 to June 8, 2017.
- Referral to care was categorized into one of nine groups: referral by self, outpatient clinic, hospital (inpatient), OB/GYN, community organization, bluegrass care clinic, transfer, and unknown.
- In March of 2010 the UK BCC began using electronic medical records, this was the point chosen for the beginning of the study period.
- Unknown observations were omitted from the analysis and results.

\textbf{Results}

- Following passage of the ACA, there was an 18\% decrease in referrals from Health Departments (29.8\% vs. 12.0\%).
- There was a 13.0\% increase in transfer of care to the Ryan White Clinic from an established HIV care provider (16.1\% vs. 29.3%).
- The changes in overall referral to care patterns between all sources are significantly different (p<0.0001) before and after the ACA, based on a chi-square analysis.

\textbf{Conclusions}

I. The results of this study indicate that the changes in federal and state healthcare policy have had significant effects on referrals to care for PLWH in Kentucky.

II. The 18\% drop in patients referred from Health Departments may indicate that PLWH have more access to screening and referrals to clinic HIV care through screening by primary care providers.

III. The proportion of patients that transfer care to the UK BCC increased by approximately 13\% between the two periods. This may be explained by individuals who were engaged in care, but did not qualify for those providers with Medicaid.

IV. These results have implications for the means to engaging more HIV infected individuals into care, particularly in states that have increased access to primary care through healthcare expansions.

\textbf{Questions}

- The implications of these data may be better understood if clinical outcome markers were associated with referral source in a longitudinal study.
- Many of the transfer of care patients were transferred from out of state. This could be a byproduct of eligibility for Medicaid in Kentucky, but not in the patient’s home state.
- The drop in rate of patients referred to care from Health Departments may be representative of shifts in state and federal funding from Health Departments to increase Medicaid availability.
- The impact of shifts in referral source on the HIV Care Cascade are unknown but an important target for future studies.

\textbf{References}


Figure 1: Counties covered by the University of Kentucky Bluegrass Care Clinic

Figure 2: Proportion of Patients by Referral Source for the Years 2010-2013 (black) and 2014-2017 (grey)