Abstract

Objective: To measure the effects of insurance availability through the Patient Protection and Affordable Care Act (ACA) on the Ryan White HIV/AIDS Program (RWHAP) at the Bluegrass Care Clinic (BCC).

Methods: 1) A cost analysis of the total RWHAP expenditures for 2013 and 2014. 2) A retrospective cohort study on HIV infected patients enrolled in the RWHAP at the BCC during January 2013 - December 2014. Data obtained through patient medical chart review was used to measure the effects of insurance on service utilization, retention, and viral load suppression.

Results: Of the 1,181 patients in 2013 and 1,214 patients in 2014 enrolled in the RWHAP at the BCC, only 688 met the criteria for this study. The mean age was 46 years (range 3 to 81 years). Sixty-five percent were White, 24% were Black, 22% were Hispanic, and 1% Asian. In 2013, 47% were uninsured compared to 14% uninsured in 2014. Further review shows patients with insurance were more likely to be virally suppressed pre-ACA implementation. However in 2014 (post-ACA), there was a significant increase in pharmaceutical utilization by insured patients.

Conclusions: This ACA has had an impact on a vulnerable patient population in terms of availability of insurance and a notable financial impact for the BCC. Further analysis will be conducted to try to determine the cause of the significant differences. Surprisingly, there was not a significant finding associated with office visit utilization and insurance status in relation to ACA, and similarly, there was not a significant difference found among other support services and insurance status.

Introduction

BCC at the University of Kentucky HealthCare receives both federal and state RWHAP funds (Parts B, C, D, and F). The BCC assisted in insurance enrollment for over 350 patients during ACA implementation. Kentucky adopted Medicaid expansion and implemented its own health insurance marketplace.

This study has the following aims pre (2013) and post-ACA (2014):

1. Aim: Measure the total cost-effectiveness of purchasing insurance with RWHAP funds at the BCC.

2. Aim: Compare viral load suppression rates of insured and uninsured patients.

3. Aim: Compare the appointment retention rate of uninsured and insured patients.

4. Aim: Compare the appointment service utilization of uninsured and insured patients.

Methods

A cost effectiveness analysis was used to examine overall expenditures during 2013 and 2014 (Table 1). Additionally, cross tabulation was performed to calculate Pearson chi-square to determine statistical significance between insurance status and HIV viral load suppression and retention rate during pre and post-ACA. We used a nonparametric Mann-Whitney U test to determine if there were significant differences between service utilization and insurance status. A p <0.05 was regarded as statistically significant.

Inclusion Criteria:

- HIV+ 2 years of age and older, and enrolled in BCC prior to January 1st, 2013

- Enrolled on the RWHAP Parts B, C, and/or D at the BCC in 2013 and 2014

- Attended at least one RWHAP funded medical care visit in 2013 and 2014

Exclusion Criteria:

- Enrolled in the BCC after January 1st, 2013

Results

Table I. demonstrates RWHAP grant expenditures for all BCC patients enrolled in pre/post-ACA.

Subject Demographics

- 688 patients were eligible for the utilization study

- Mean age was 46 years (Standard Deviation 11.717)

- 78% (n = 535) of patients were male

- Racial demographics:
  - 448 (65%) White
  - 164 (24%) Black
  - 74 (10%) Hispanic
  - 2 (1%) Asian

- *This is representative of the BCC HIV population.

Table I. Overall BCC RWHAP Expenditures Pre/Post-ACA

<table>
<thead>
<tr>
<th>Table I</th>
<th>Overall BCC RWHAP Expenditures Pre/Post-ACA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Number of Patients</td>
<td>1181</td>
</tr>
<tr>
<td>FEE FOR SERVICE</td>
<td>$114,173.81</td>
</tr>
<tr>
<td>Specialty Care</td>
<td>$109,028.05</td>
</tr>
<tr>
<td>Medication Assistance</td>
<td>$190,076.17</td>
</tr>
<tr>
<td>Labs, Radiology, Diagnostic Testing</td>
<td>$322,717.78</td>
</tr>
<tr>
<td>Outpatient Substance Abuse</td>
<td>$220.00</td>
</tr>
<tr>
<td>TOTAL FEE FOR SERVICE</td>
<td>$845,243.86</td>
</tr>
<tr>
<td>FTE SUPPORT</td>
<td>$244,809.17</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>$106,158.65</td>
</tr>
<tr>
<td>Primary Care</td>
<td>$98,134.98</td>
</tr>
<tr>
<td>Mental Health</td>
<td>$449,102.80</td>
</tr>
<tr>
<td>TOTAL FTE SUPPORT</td>
<td>$1,294,346.66</td>
</tr>
<tr>
<td>INCOME</td>
<td>$207,785.29</td>
</tr>
<tr>
<td>Program Income</td>
<td>$1,086,561.37</td>
</tr>
<tr>
<td>Expenditure Per Patient</td>
<td>$920.04</td>
</tr>
</tbody>
</table>

- Total RWHAP expenditures decreased by $74,427.08 post-ACA

- Expenditures per patient decreased by $86.32 post-ACA.

- As a result a redistribution of RWHAP funds were observed post-ACA:
  - Total cost of providing insurance increased by $127,527.08
  - Total costs of providing labs, radiology, and diagnostics decreased by $141,864.34.

Regardless of ACA implementation, the retention rate was not significantly changed for either insurance group (88% vs 89% respectively).

No significant findings were found among transportation utilization or office visits.

Conclusions

As a result of ACA in KY, the overall RWHAP costs associated with providing services decreased slightly. RWHAP services such as office visits, transportation assistance, and case management continued to be utilized although our insured patient population increased. Further analysis of pharmaceutical utilization and viral load suppression should be conducted to determine the cause of the significant differences.

Future Considerations:

- The relatively small impact on viral suppression and retention made by the availability of insurance demonstrates the strong infrastructure of the RWHAP programs. Despite insurance status patients continue to receive many beneficial support services that supplement quality medical care. RWHAP funded supportive services such as medical case management and transportation assistance continue to be crucial to the success of this patient population.

- The redistribution of RWHAP funds for medical services to supportive services, which are medically necessary and routinely covered by insurance plans, will need to be further explored. Future studies could also include comparisons among patients receiving RWHAP assisted insurance vs non RWHAP assisted insurance.

This preliminary study leads to the importance of providing insurance through the RWHAP. BCC costs did not decrease exponentially but providing insurance allows costs to be redistributed to other areas that may improve barriers to care. Although patients that entered the RWHAP is a major contributor to patients remaining in care.

References


