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HEALTHCARE COST SAVINGS THROUGH TELEMEDICINE USE AT CORRECTIONAL STATE FACILITIES

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Background
• The Virginia Commonwealth University (VCU) Office of Telemedicine has provided telemedicine visits to more than 45,000 patients over 22 years and encompasses over 15 subspecialties, which have facilitated care to incarcerated patients at 30 Department of Corrections (DOC) sites in Virginia
• Incarcerated individuals represent a patient population that uniquely benefit from receiving care via telemedicine due to decreased access to subspecialty care as well as security risks and costs associated with transporting an inmate to a tertiary care facility
• To attend a brief in-office medical visit, an inmate requires hours of administrative support and logistical coordination, including appointment scheduling, transport arrangement and related fuel expense, and guard accompaniment - all at a financial cost to taxpayers
• Telemedicine stands as a proven solution to decrease these costs and improve access to the care of inmates [1-4]

Purpose
To assess the cost effectiveness of providing telemedicine visits to Virginia DOC inmates

Methods
• The VCU Office of Telemedicine performed a cost savings analysis of the 2016 fiscal year
• The amount saved per telemedicine visit in the 2016 fiscal year was estimated by calculating officer costs and transportation costs associated with transporting an inmate to an on-site visit
• This amount was multiplied by the total number of VA DOC inmate telemedicine visits in FY 2016 to calculate the total amount saved by providing care via telemedicine as compared to providing care via an on-site security care clinic visit
• In our analysis, the underlying assumption is that telemedicine visits would replace on-site visits, and therefore would avoid all costs associated with on-site security care clinic visits

Results
Table 1: Total cost savings of providing telemedicine care to VA DOC inmates in FY 2016

<table>
<thead>
<tr>
<th>Officer Costs</th>
<th>Transportation Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary: $250/day/guard x 2 guards = $500/day</td>
<td>Gas: $2.50/gallon x 60 gallons/round trip = $150/round trip</td>
</tr>
<tr>
<td>Van Rental: $150/day</td>
<td></td>
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<tr>
<td>Total cost associated with on-site visit = $800/visit</td>
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<tr>
<td>Total number of telemedicine visits in FY 2016 = 2,805</td>
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</tr>
<tr>
<td>Total cost savings in FY 2016 = $800/visit x 2,805 visits = $2,244,000</td>
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Discussion
• The delivery of care to Virginia DOC inmates via telemedicine results in significant cost savings for the healthcare system
• Cost savings analyses for subsequent fiscal years would allow us to obtain a better picture of cost savings over time. In addition, further research could be done to determine if providing telemedicine care to inmates in other states results in similar cost savings.
• Our analysis was limited by the assumption that all telemedicine visits would otherwise be on-site security care clinic visits.
• The study did not factor in fluctuating fuel expenses as well as infrastructure costs (such as technology, training, and administrative expenses) needed to support telemedicine visits.

Acknowledgements
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References

Figure 1: Map of DOC and community sites in Virginia where VCU provides telemedicine care.