

Characteristics of Communities Associated with Increased Utilization of State Hospitals

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Summary

Over the past three years, temporary detention order (TDO) admissions to state psychiatric hospitals have been on the rise in Virginia. This removes patients from their communities and creates unsafe conditions as state hospital utilization rises well above 90%. A previous report has identified some of the important events associated with the increase in the number of TDOs across the Commonwealth since 2014¹. The current report focuses on increases in TDO admissions to state hospitals. Much of the increase in TDOs to state hospitals is driven by increases in TDOs in general, especially in the Northern Virginia Mental Health Institute (MHI), Western State and Catawba catchment areas. There was, nonetheless, a substantial part of the increase attributable to changes in private hospital acceptance of patients under a TDO, especially in the Central State and Southwestern MHI catchment Areas.

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I. Data Sources

Information on TDOs for adults was provided by the Supreme Court of Virginia, for years 2007-2017. Data on CSB characteristics, such as expenditures, were provided by Virginia's Department of Behavioral Health and Developmental Services (DBHDS) for fiscal years 2015-2017. Additionally, DBHDS provided data on adult TDO admissions to state hospitals for fiscal years 2012-2018. The number of safety net mental health (MH) clinics was provided by the Substance Abuse Mental Health Services Administration for fiscal year 2017. General community characteristics, such as the proportion of the population that are African-American, were taken from the American Community Survey for 2015.

II. Increase in TDO Admissions to State Hospital

Over the past 5 years, increasing numbers of Virginians have been subject to TDOs, with or without hospitalization to a state facility. The first large increase in TDOs happened during fiscal year 2014 following the death of Austin Deeds. In some parts of the state, there was an increase in TDOs during fiscal year 2015, following the passage of a law requiring state hospitals to take TDO admissions as a "last resort" if a person met the criteria for TDO and no private hospital would admit them. There was an increase later that year following the implementation of the Governor's Access Plan (GAP), and there was another increase in fiscal year 2016, as a large number of Crisis Intervention Team (CIT) assessment centers became fully operational.

This increase in TDOs has had an impact on state psychiatric hospitals. In fiscal year 2013, there were 1,012 adult TDO admissions to state psychiatric facilities. In 2017, there were 3,344, an increase of 330%. Reductions in post-hearing civil admissions (-53%), both voluntary and involuntary (Code of Virginia § 37.2-805 and § 37.2-817), have not compensated for this surge in TDO admissions. In many CSBs, trends in state hospital TDO admissions have corresponded to trends in overall TDOs, but that has not been the case for all CSBs.

III. Contribution of Specific Localities to State Hospital TDO Admissions

Table 1 depicts the contribution of specific localities to the overall statewide increase in adult TDOs between 2013 and 2017 and to the increase of TDO-admissions to state hospitals.

1. <https://static1.squarespace.com/static/589a1500893fc0cdfc2b5fc5/t/5a79f1819140b7b7a84f47b0/1517941122578/RisingTDOs12.pdf>

* It should be noted that these are licensed beds, not necessarily staffed beds. Some hospitals have physical space for more people than their comparatively low staffing can handle safely. Furthermore, some hospitals have multiple psychiatric wards, with some that admit TDO clients and others that do not. The number of beds listed should be interpreted as an upper limit.

Localities in this table refer to the CSBs recommending the issuance of the TDO. It is important to keep in mind, however, that the CSB recommendation for the TDO is only one variable in the sequence of decisions leading to admission to a state hospital. The other key variable is the collective inability or unwillingness of private hospitals contacted by the CSB to admit the person.

In Table 1, an overall increase in TDOs is defined as an increase from fiscal year 2013 to 2017 of greater than 15%. An increase in state hospital TDOs is defined as an increase from 2013 to 2017 of at least 35 admissions per year. The 24 CSBs with an increase of at least 35 admissions per year account for 90% of the increase in adult state hospital TDO admissions statewide. We have categorized the different patterns of TDO admissions as follows:

- Category 1 shows those CSBs that have increased their TDO admissions to state hospitals in tandem with an overall rise in TDOs.
- Category 2 lists those CSBs that have increased their TDO admissions to state hospitals in spite of no permanent increase in TDOs overall, although some have seen temporary increases that have since been resolved.
- Category 3 lists those CSBs that have seen an increase in TDOs that has not impacted the state hospitals.
- Category 4 lists CSBs that have not experienced either an increase in overall TDOs or an increase in TDOs to state hospitals.

This report focuses on TDO admissions to state hospitals and the variations in admission flow from communities across the Commonwealth. However, it does not tell the whole story because it is missing localized data regarding TDO admissions to private hospitals. As of October 2017, private hospitals now admit approximately 80% of patients under a TDO. One key question is whether and to what extent the private hospitals in each locality have the capacity to admit the patients now being admitted to state hospitals. However, the data are not readily available to make that assessment.

Table 1: TDOs to state hospitals versus changes in overall TDOs	
Category	CSBs (% of statewide increase in state hospital admissions attributable to specific CSB)
1) Overall Increase in TDOs and in TDOs to State Hospitals	Blue Ridge (13%) Prince William (7%) Fairfax-Falls Church (7%) Valley (5%) Alexandria (4%) Arlington (3%) Henrico (3%) Chesapeake (3%) Norfolk (3%) Northwestern (3%) Region 10 (3%) Piedmont (3%) Loudoun (2%) Rappahannock (2%) Danville-Pittsylvania (2%) Portsmouth (2%)
2) Increase in TDOs to State Hospitals without a significant overall increase in TDOs	New River Valley (6%) Richmond (4%) Horizon (3%) Hampton-Newport News (3%) Virginia Beach (3%) Western Tidewater (2%) District 19 (2%) Planning District 1 (2%)
3) Overall Increase in TDOs, without a significant increase in TDOs to State Hospitals	Harrisonburg-Rockingham (1%) Colonial (1%) Eastern Shore (1%) Middle Peninsula-Northern Neck (1%) Southside (1%)
4) No significant overall increase in TDOs or in TDOs to State Hospitals	Mount Rogers (1%) Rockbridge (1%) Chesterfield (1%) Rappahannock-Rapidan (1%) Crossroads (1%) Hanover (1%) Cumberland Mountain (<1%) Alleghany-Highlands (<1%) Goochland-Powhatan (<1%) Dickenson (<0%) Highlands (<0%)

The following section identifies characteristics of the CSBs that are associated with these TDO admission patterns.

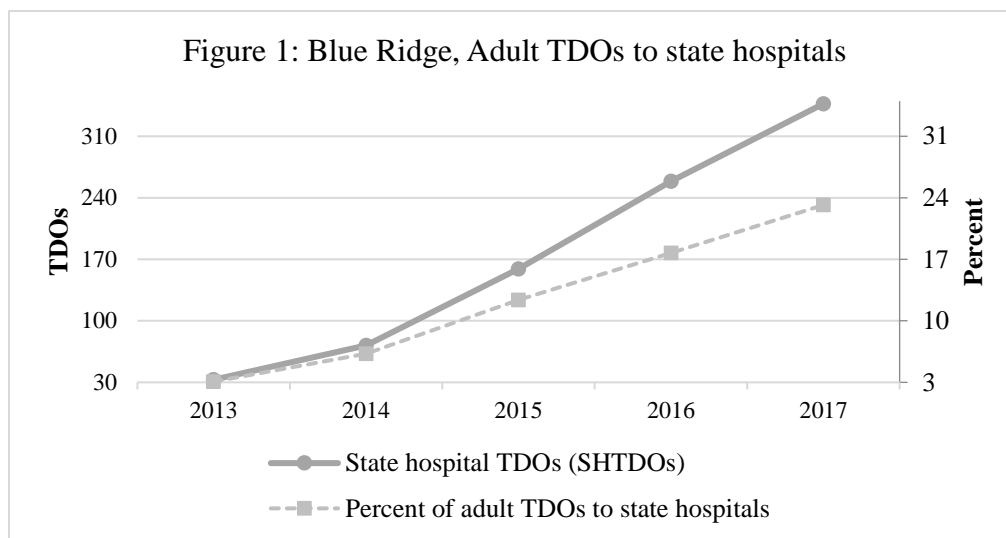
IV. CSBs with Increases in Overall TDOs and TDOs to State Hospitals (Category 1)

Table 1 showed that **16 CSBs have seen an increase in TDO admissions to state hospitals in tandem with an increase in TDOs overall**. This section describes trends in each of those CSB catchment areas individually. A graph is provided of annual changes in adult TDO admissions to state hospitals recommended by prescreeners from the indicated CSB. Seasonally adjusted adult TDOs are also described. Seasonal adjustment allows for the observation of short-term changes, without interference from ordinary seasonal variation. For each CSB, a table describes CSB and catchment area characteristics that may be associated with a higher number of evaluations or a higher proportion of evaluations resulting in TDOs. These characteristics include¹: larger numbers of adults with serious mental illness (SMI) living in the catchment area, fewer outpatient mental health clinics that accept Medicaid, greater funding for the treatment of substance use disorders (SUD), a higher proportion of CSB funding that comes from Medicaid, and a higher proportion of the catchment area population that are African-American. In the case of most of the following 16 CSBs (all except Valley and Henrico), TDO admissions to private hospitals have increased in absolute numbers. In some cases, this increase has been dramatic, but not enough to compensate for the rise in TDOs overall.

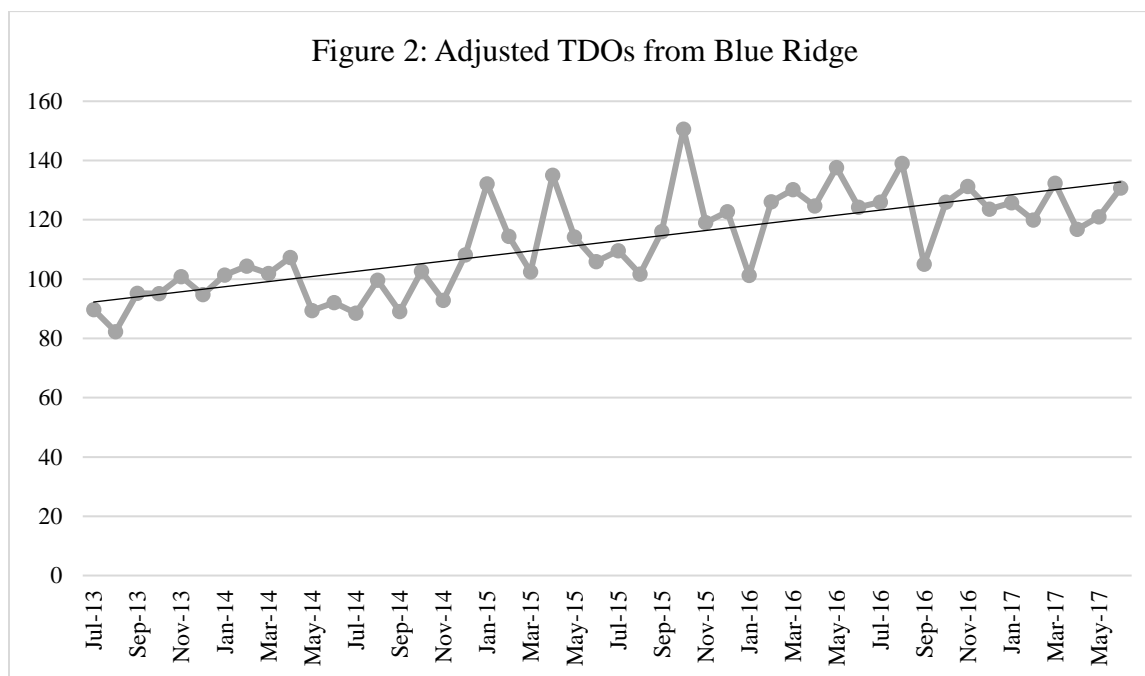
A. Blue Ridge Behavioral Healthcare

Figure 1 shows adult TDO admissions to state hospitals from Blue Ridge CSB. The number has increased every year for the past four years, with the greatest increases in the past three years. The percentage of adult TDOs that are admitted to state hospitals has climbed from 3% to 23% across the five-year period. In the Blue Ridge catchment area, there are currently 181 psychiatric beds* at private facilities that accept TDO admissions.

* It should be noted that these are licensed beds, not necessarily staffed beds. Some hospitals have physical space for more people than their comparatively low staffing can handle safely. Furthermore, some hospitals have multiple psychiatric wards, with some that admit TDO clients and others that do not. The number of beds listed should be interpreted as an upper limit.
[1.https://static1.squarespace.com/static/589a1500893fc0cdfc2b5fc5/t/5a79f1819140b7b7a84f47b0/1517941122578/RisingTDOs12.pdf](https://static1.squarespace.com/static/589a1500893fc0cdfc2b5fc5/t/5a79f1819140b7b7a84f47b0/1517941122578/RisingTDOs12.pdf)



From 2013 to 2017, adult TDOs from Blue Ridge Behavioral Healthcare rose 40%, from 1,071 to 1,497. Figure 2 shows seasonally adjusted TDOs for clients 18 years or older. Blue Ridge saw a temporary increase in TDOs that began in the first quarter of fiscal year 2014 and ended in the last quarter. There was a subtle increase after the implementation of the new law on TDOs to state hospitals and a much greater increase after the start of the GAP program in fiscal year 2015. There was also a temporary increase after the establishment of a new CIT assessment center in fiscal year 2016.



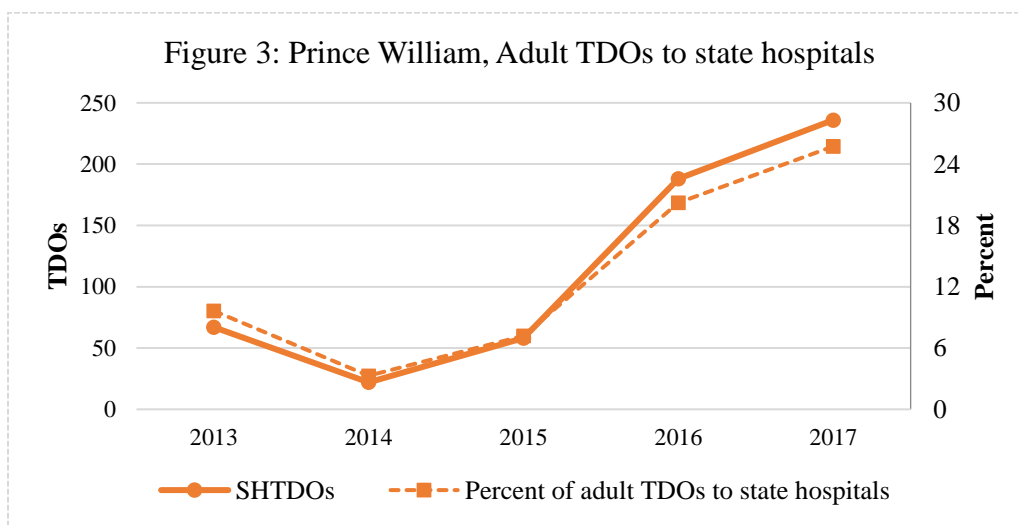
In addition to reactions to major events, Blue Ridge has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 2). The number of adults with

SMI is almost double the median for the state. In fiscal year 2016, SUD treatment expenditures were in the top quartile for the state.

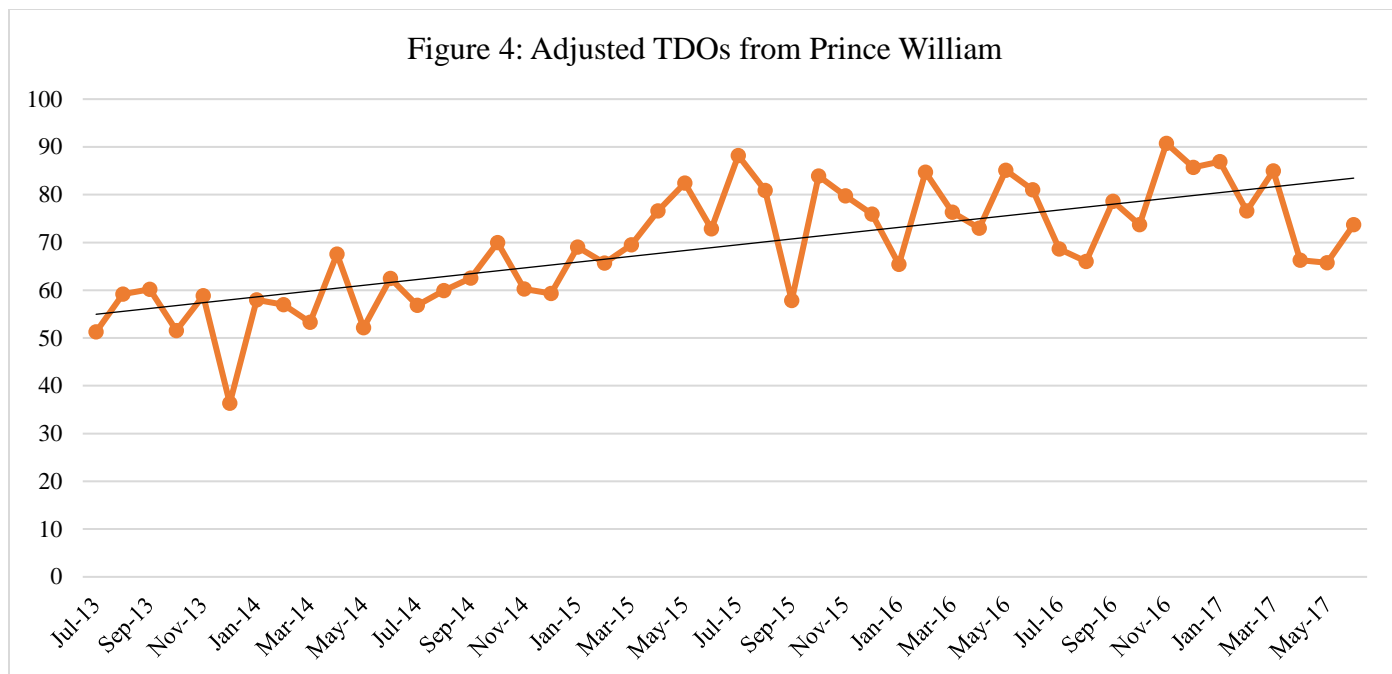
Table 2: Pertinent characteristics of Blue Ridge Behavioral Healthcare and its catchment area.	
CSB/Community Characteristic	Value for Blue Ridge
Estimated adult population with SMI, 2016	19,168
Outpatient MH clinics that accept Medicaid	6
CSB SUD treatment expenditures FY 2016	\$4,696,708
Percent population African-American	14%
Percent CSB funding from Medicaid, 2016	43%

B. Prince William County Community Services

Figure 3 shows adult TDO admissions to state hospitals out of Prince William County. The number has increased every year for the past three years, with the greatest jump between fiscal years 2015 and 2016. Across the period, the percent of adult TDOs that were admitted to state hospitals rose from 9% to 26%. In Prince William County, there are currently 32 psychiatric beds in private facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Prince William County Community Services rose 32%, from 696 to 917 (Figure 4). There was a subtle increase after the death of Austin Deeds, a sharp increase after the implementation of the GAP program, and an unexplained decline over the last half of fiscal year 2017.

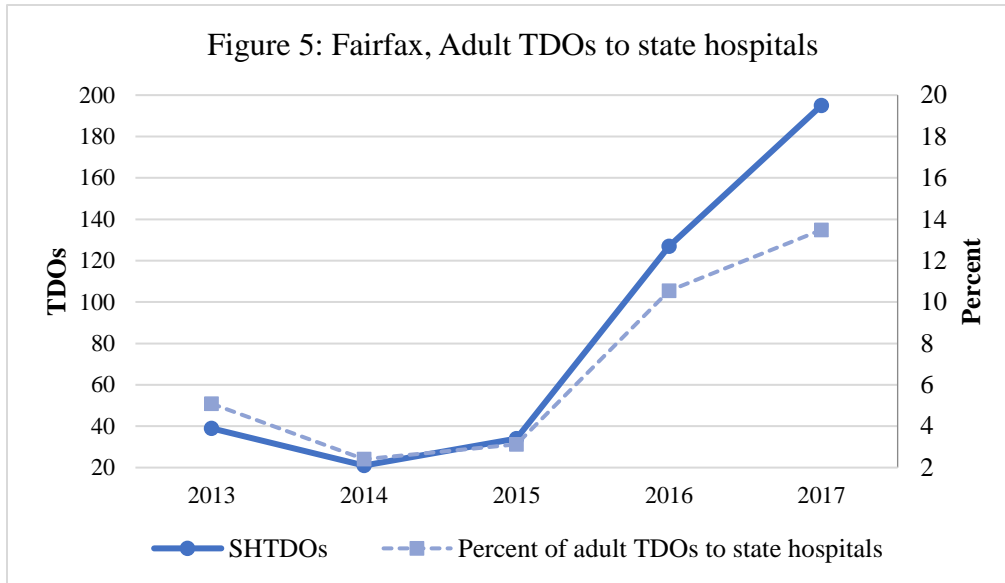


Prince William has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 4). Their estimated adult SMI population is in the top decile for the state and the number of outpatient clinics in their catchment area is somewhat low for their SMI population. SUD treatment expenditures are in the top quartile for the state.

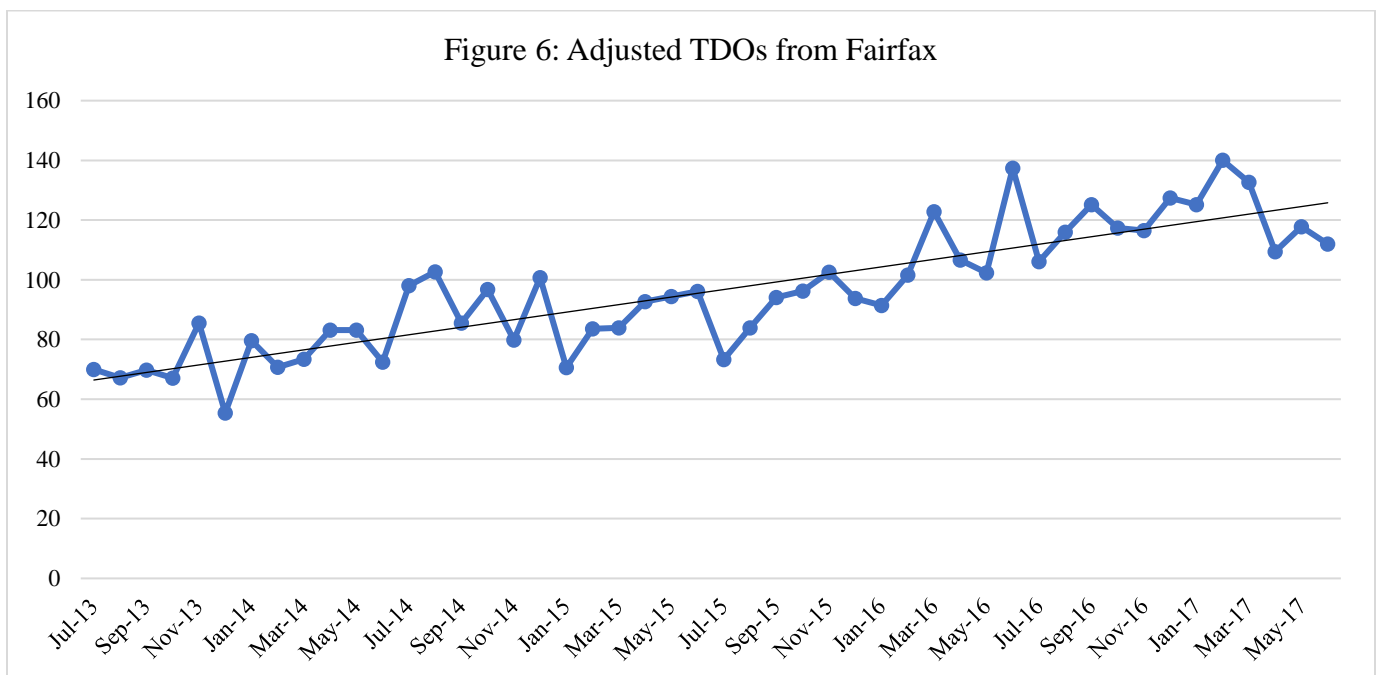
Table 4: Pertinent characteristics of Prince William County CSB and its catchment area.	
CSB/Community Characteristic	Value for Prince William
Estimated adult population with SMI, 2016	22,669
Outpatient MH clinics that accept Medicaid	5
CSB SUD treatment expenditures from FY 2015 to FY 2016	\$3,789,542
Percent population African-American	19%
Percent CSB funding from Medicaid, 2016	14%

C. Fairfax-Falls Church CSB

Figure 5 shows adult TDO admissions to state hospitals from Fairfax. The number has increased every year for the past three years, with the greatest jump between fiscal years 2015 and 2016. From fiscal year 2013 to 2017, the percent of TDOs admitted to state hospitals has increased from 5% to 13%. In the Fairfax-Falls Church catchment area, there are currently 136 psychiatric beds in private hospitals that accept TDO admissions.



From 2013 to 2017, adult TDOs from Fairfax-Falls Church CSB rose 89%, from 767 to 1,446 (Figure 6). This graph shows a gradual, unsteady increase in Fairfax TDOs after the death of Austin Deeds, followed by a dramatic increase following the implementation of the new law on TDOs to state hospitals, followed by a gradual decline, a subtle increase following the implementation of the GAP program, and an unexplained increase in the spring of 2016. The establishment of a CIT assessment center in 2017 seems to have resulted in a temporary spike in TDOs, followed by a decline.

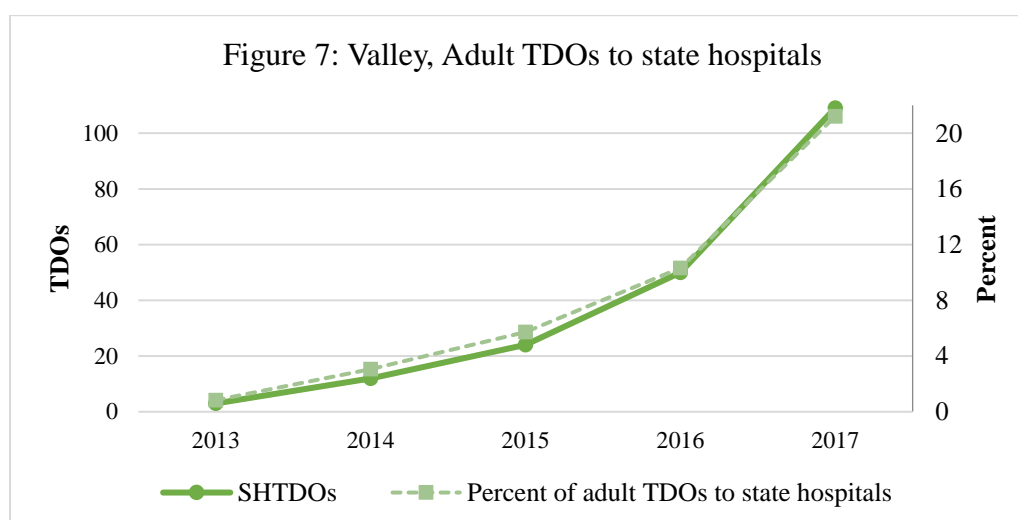


Fairfax has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 5). Their estimated SMI population is the highest in the state. So are SUD treatment expenditures.

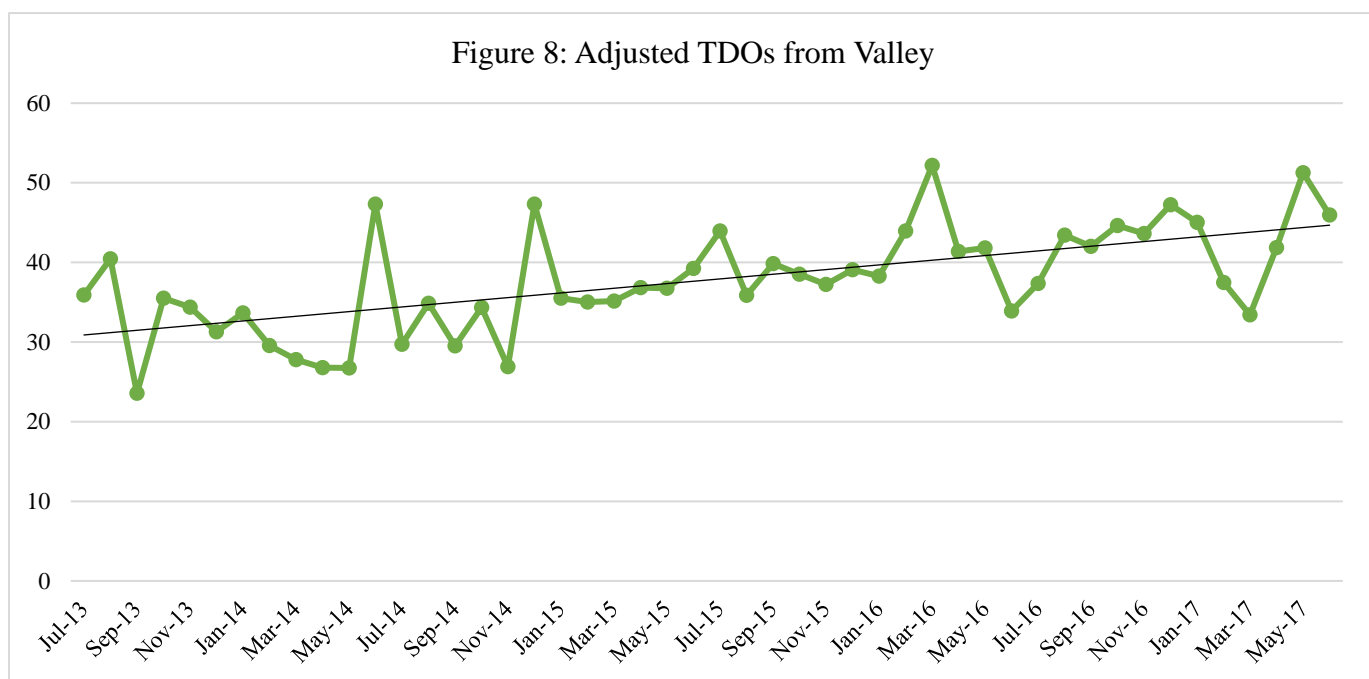
Table 5: Pertinent characteristics of Fairfax-Falls Church CSB and its catchment area.	
CSB/Community Characteristic	Value for Fairfax
Estimated population with SMI, 2016	51,101
Outpatient MH clinics that accept Medicaid	17
CSB SUD treatment expenditures FY 2016	\$16,843,471
Percent population African-American	9%
Percent CSB funding from Medicaid, 2016	9%

D. Valley CSB

Figure 7 shows adult TDO admissions to state hospitals from Valley. The number has increased every year for the past four years, with the greatest jump between fiscal years 2016 and 2017. Across the period, the percentage of TDOs that were sent to state hospitals rose from 1% to 21%. In the Valley catchment area, there are 28 psychiatric beds in private facilities that accept TDO admissions.



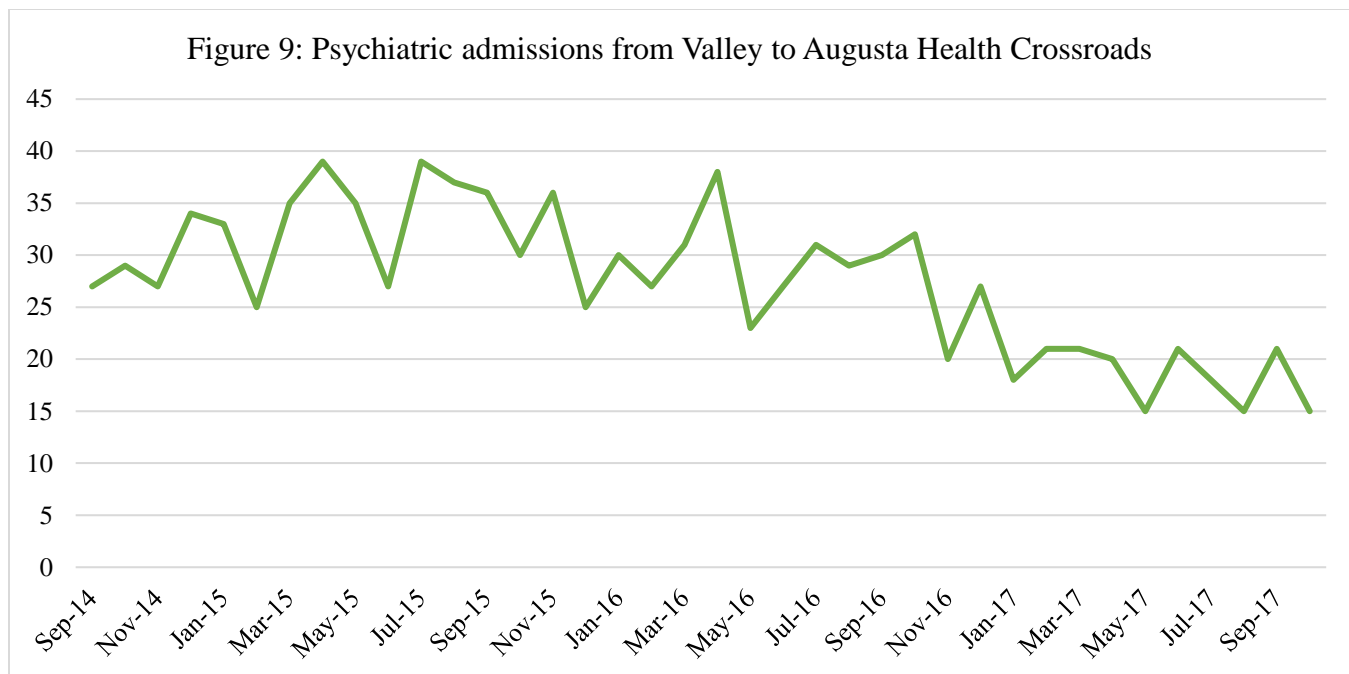
From 2013 to 2017, adult TDOs from Valley CSB rose 43%, from 360 to 514 (Figure 8). Unlike most of the state, Valley saw a decline in TDOs following the death of Austin Deeds, followed by a partial rebound after the law on state hospitals and TDOs, a subtle increase after the implementation of the GAP program, a temporary increase after the establishment of a CIT assessment center, and an unexplained increase across fiscal year 2017.



Valley has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 6). The CSB is heavily Medicaid-dependent, in the top quartile for the state, and the number of outpatient MH clinics is very low for their adult SMI population.

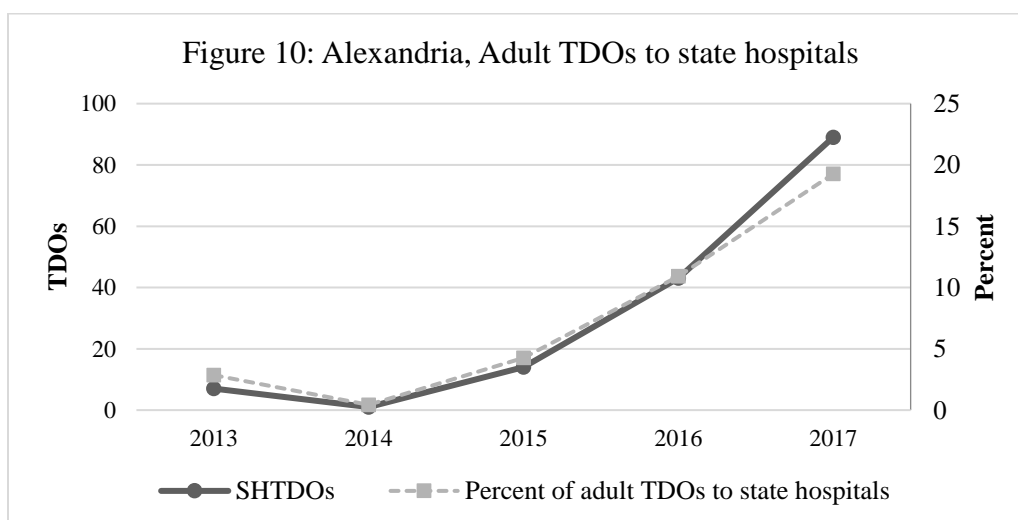
Table 6: Pertinent characteristics of Valley CSB and its catchment area.	
CSB/Community Characteristic	Value for Valley
Estimated adult population with SMI, 2016	9,676
Outpatient MH clinics that accept Medicaid	2
CSB SUD treatment expenditures FY 2016	\$1,072,814
Percent population African-American	7%
Percent CSB funding from Medicaid, 2016	62%

As previously noted, an overall increase in TDOs in a specific locality may not lead to an increase in state hospital admissions if the increase is absorbed by the private hospitals in the catchment area. Alternatively, the increase may be shared by local hospitals and state hospitals or may be absorbed entirely by state hospitals. A key issue goal of this inquiry is to ascertain whether and to what degree the private hospitals have absorbed the increase in TDOs. Unfortunately, systematic data on psychiatric admissions to private hospitals, including TDO admissions, are not available. However, Valley CSB has maintained data on their admissions to Augusta Health Crossroads and are displayed in Figure 9. These data show that their admissions to Augusta Health Crossroads have declined since fiscal year 2016 even though TDOs have continued to rise.

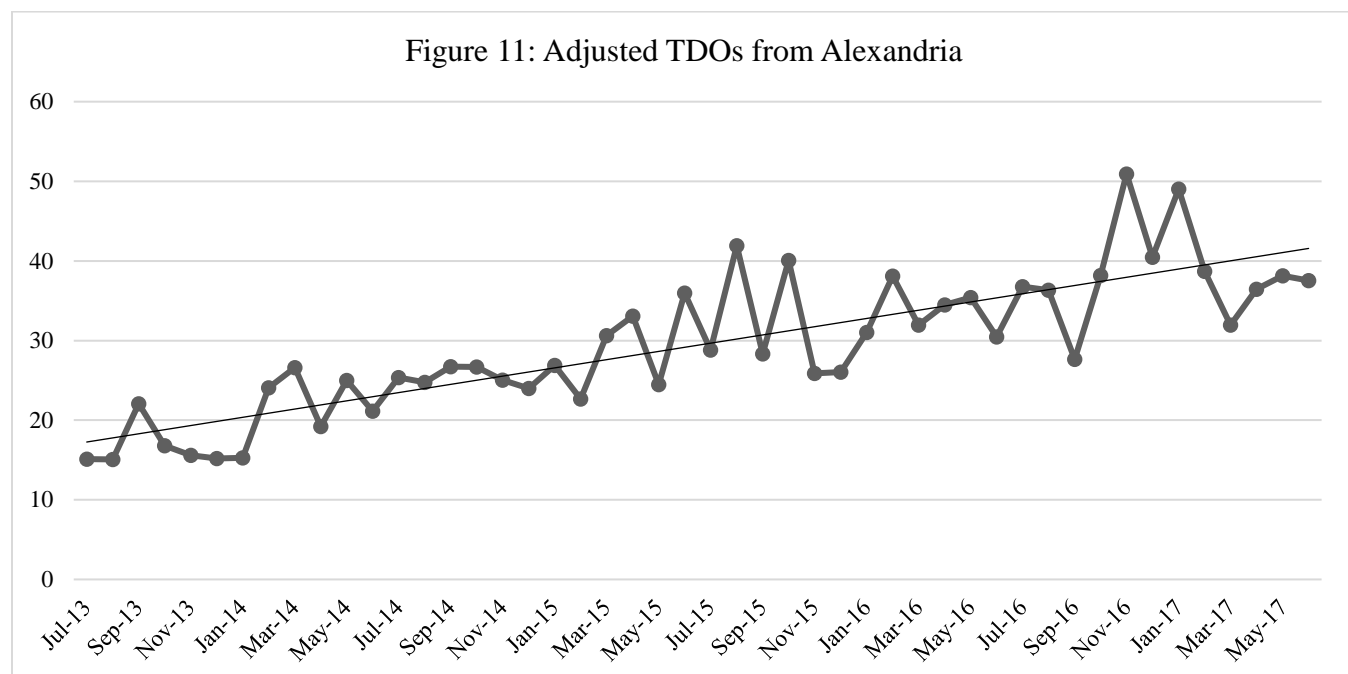


E. Alexandria CSB

Figure 10 shows adult TDO admissions to state hospitals from Alexandria. The number has increased every year for the past three years, with the greatest jump between fiscal years 2016 and 2017. Across the five year period, the percent of adult TDOs that were sent to state hospitals increased from 3% to 19%. In Alexandria, there are 30 psychiatric beds located in facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Alexandria CSB rose 89%, from 245 to 462 (Figure 11). Alexandria saw a sharp increase in TDOs following the death of Austin Deeds, followed by another increase following the implementation of the GAP program, and a temporary, unexplained increase in the winter of fiscal year 2017.

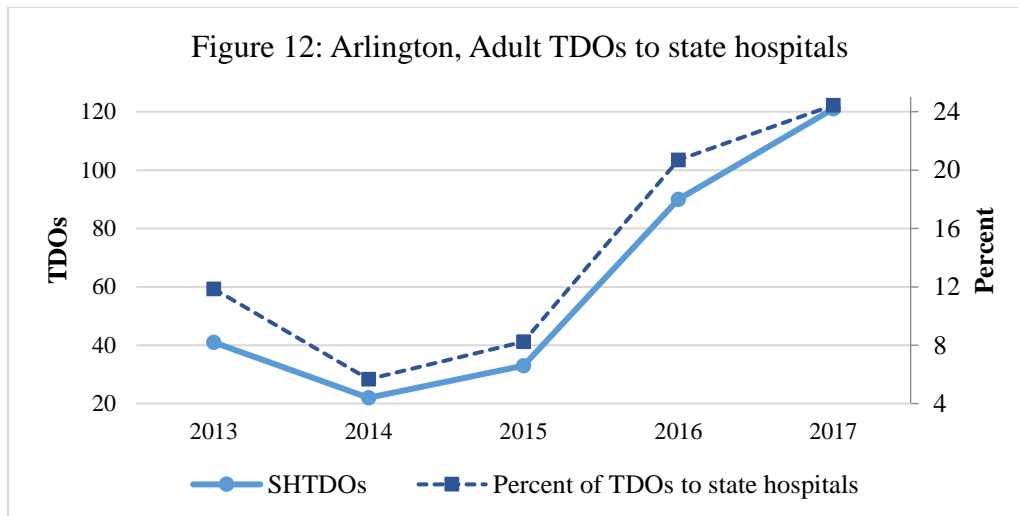


Alexandria has very high expenditures on SUD treatment (in the top decile for the state), which makes it vulnerable to larger volumes of evaluations and TDOs (Table 7).

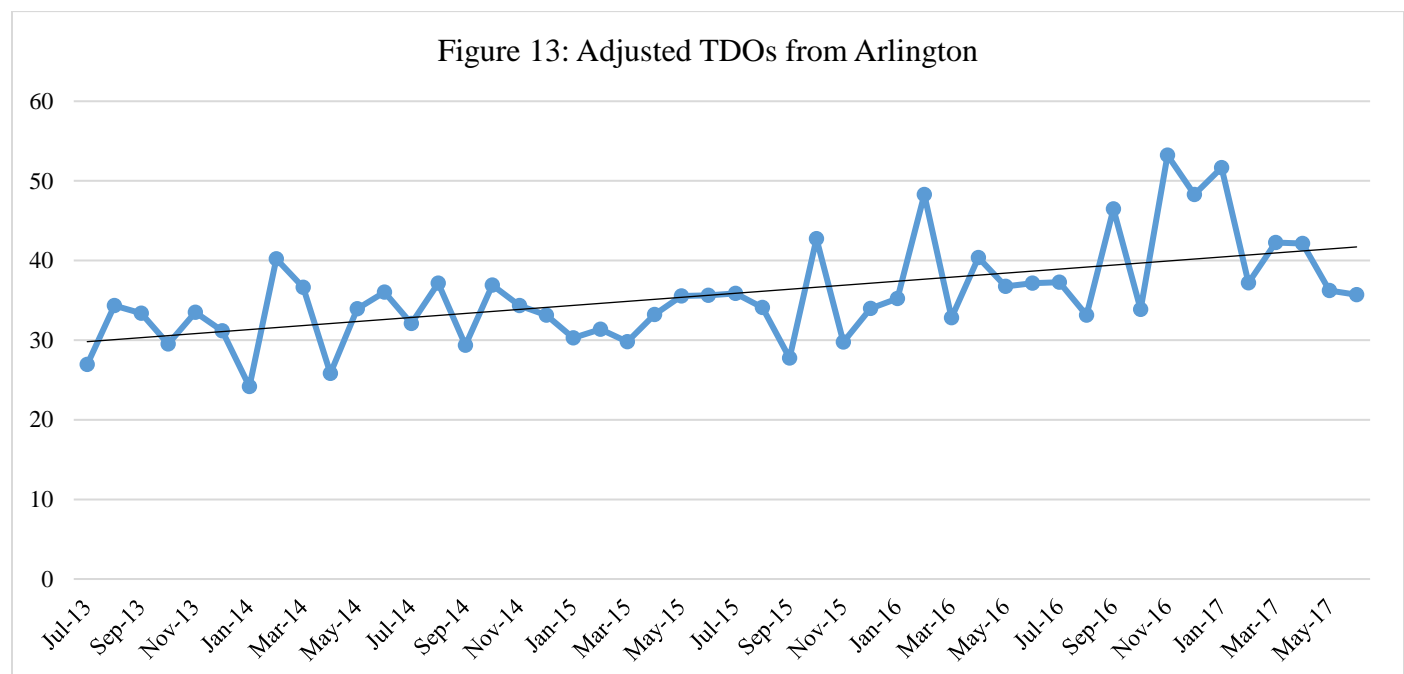
Table 7: Pertinent characteristics of Alexandria CSB and its catchment area.	
CSB/Community Characteristic	Value for Alexandria
Estimated adult population with SMI, 2016	7,512
Outpatient MH clinics that accept Medicaid	4
CSB SUD treatment expenditures FY 2016	\$7,424,004
Percent population African-American	21%
Percent CSB funding from Medicaid, 2016	14%

F. Arlington County CSB

Figure 12 shows adult TDO admissions to state hospitals from Arlington. The number has increased every year for the past three years, with the greatest jump between fiscal years 2015 and 2016. Across the five-year period, the percent of TDOs that were sent to state hospitals increased from 12% to 24%. In Arlington, there are 40 psychiatric beds in facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Arlington County CSB rose 43% from 346 to 495 (Figure 13). In Arlington, there was a temporary increase in TDOs after the establishment of a CIT assessment center in fiscal year 2014, followed by an increase after the implementation of the GAP program, followed by a temporary increase in the winter of fiscal year 2017 associated with an unexplained worsening in acuity of presenting patients.

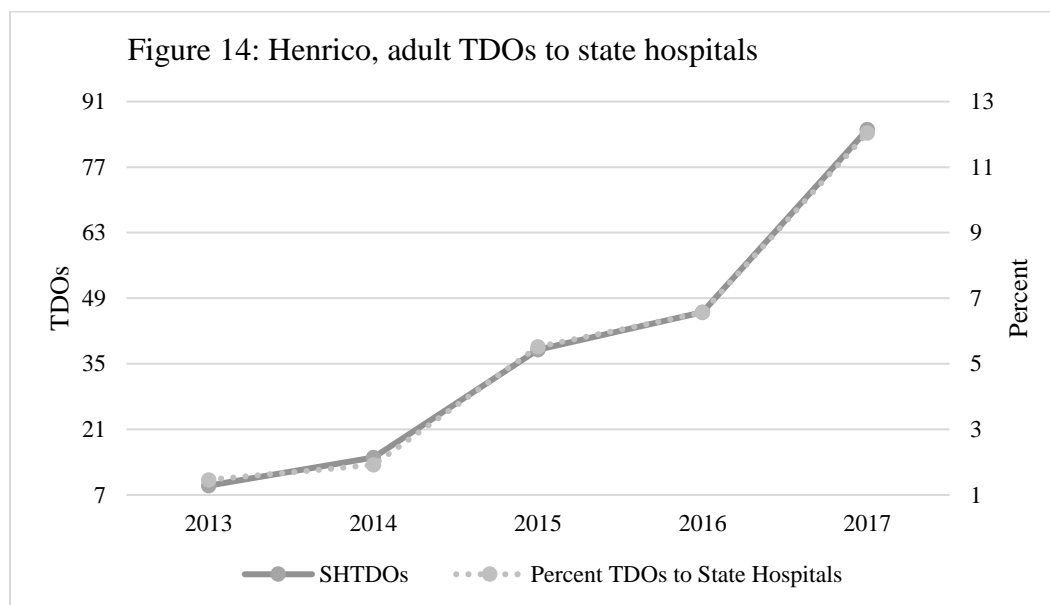


Arlington has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 8). The number of outpatient MH clinics is extremely low for the SMI population, and SUD treatment expenditures are more than twice the median for the state.

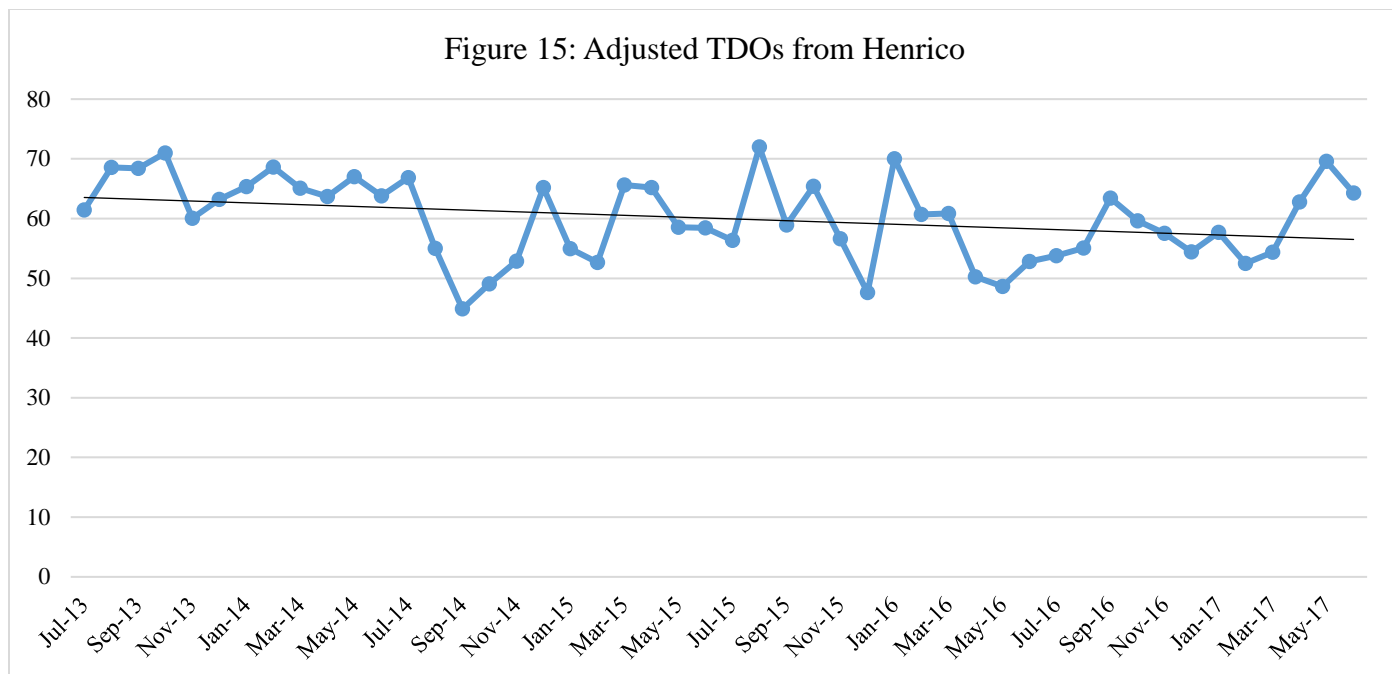
Table 8: Pertinent characteristics of Arlington County CSB and its catchment area.	
CSB/Community Characteristic	Value for Arlington
Estimated adult population with SMI, 2016	12,870
Outpatient MH clinics that accept Medicaid	1
CSB SUD treatment expenditures FY 2016	\$4,177,277
Percent population African-American	8%
Percent CSB funding from Medicaid, 2016	7%

G. Henrico Mental Health and Developmental Services

Figure 14 shows adult TDO admissions from Henrico County Mental Health and Developmental Services to state hospitals. The number has increased each fiscal year for the past four years, with the greatest increase observed from 2016 to 2017. The percent of TDOs that were admitted to state hospitals increased from 1% to 12%. In the Henrico catchment area, there are 56 psychiatric beds in private facilities that accept TDO admissions.



From fiscal year 2013 to 2017, adult TDOs from Henrico rose 15% from 615 to 706 (Figure 15). There was an increase in TDOs after the establishment of a CIT assessment center in fiscal year 2013, followed by a decline at the beginning of fiscal year 2014. There was a second increase after the implementation of the GAP program, followed by a decline toward the end of fiscal year 2016. The final quarter of fiscal year 2017 saw an unexplained increase in adult TDOs.

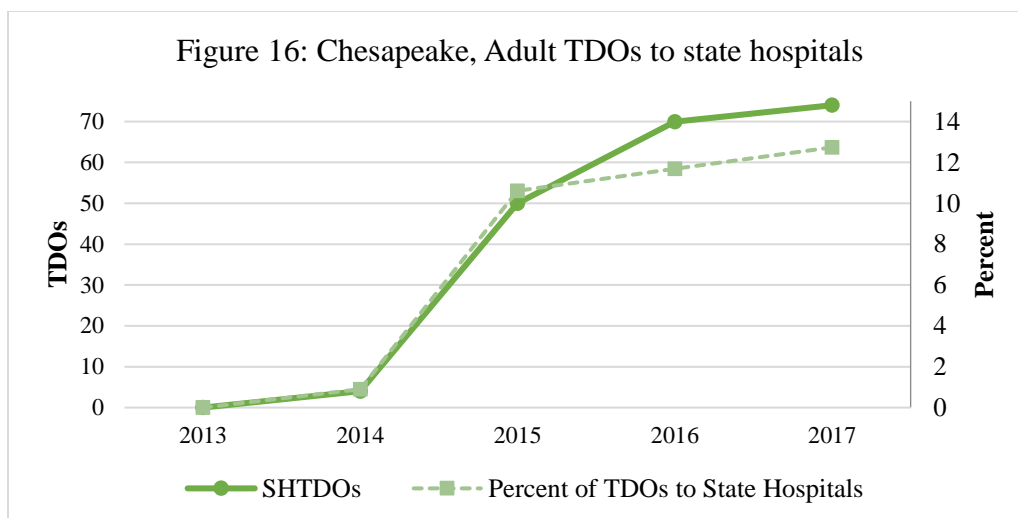


Henrico has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 9). The adult SMI population is in the top decile for the state and a high proportion of the area population are African-American.

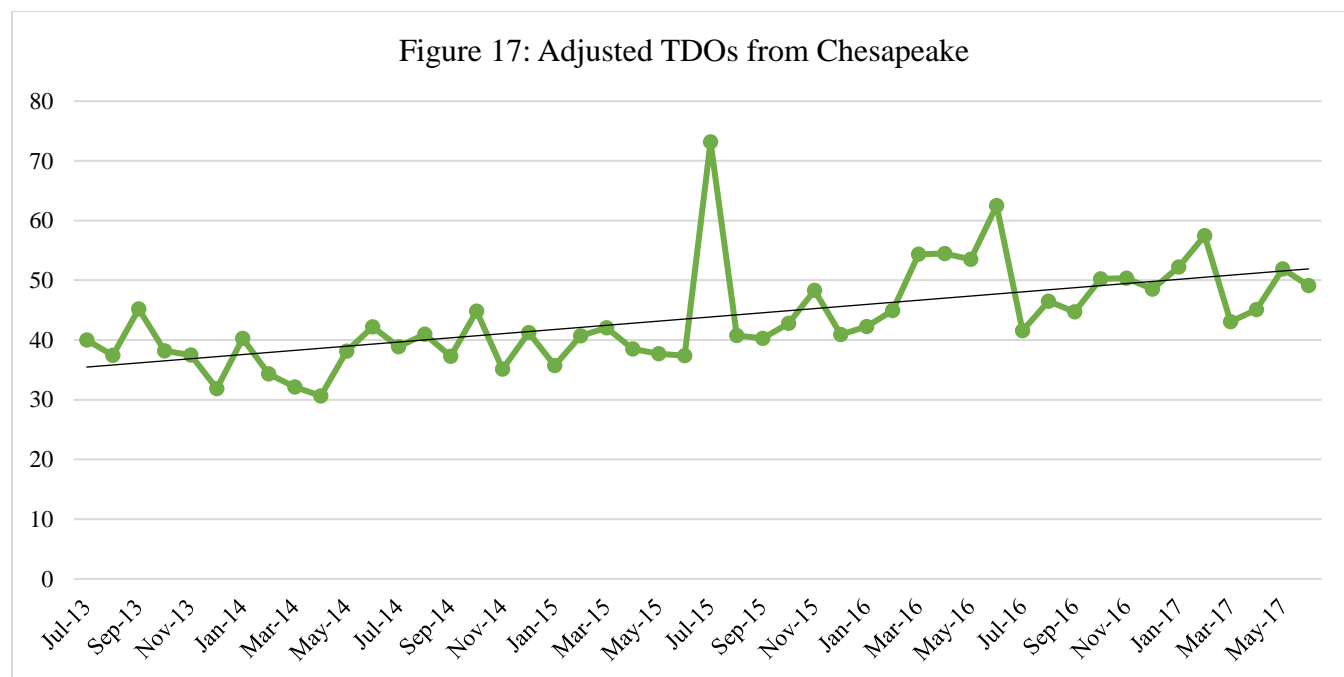
Table 9: Pertinent characteristics of Henrico MHDS and its catchment area.	
CSB/Community Characteristic	Value for Henrico
Estimated adult population with SMI, 2016	20,520
Outpatient MH clinics that accept Medicaid	6
Increase in CSB SUD treatment expenditures from FY 2015 to FY 2016	\$ 2,335,331
Percent population African-American	29%
Percent CSB funding from Medicaid, 2016	31%

H. Chesapeake Integrated Behavioral Healthcare

Figure 16 shows adult TDO admissions to state hospitals from Chesapeake. The number increased from fiscal year 2014 to 2015, and, to a lesser degree, from 2015 to 2016. The percentage of TDOs that were sent to state hospitals increased from 0% to 13%. In Chesapeake, there are no private facilities with psychiatric beds.



From 2013 to 2017, adult TDOs from Chesapeake Integrate Behavioral Healthcare rose 24%, from 467 to 581 (Figure 17). Chesapeake saw a temporary decline in TDOs after the Deeds incident, and an unexplained increase across fiscal year 2016.

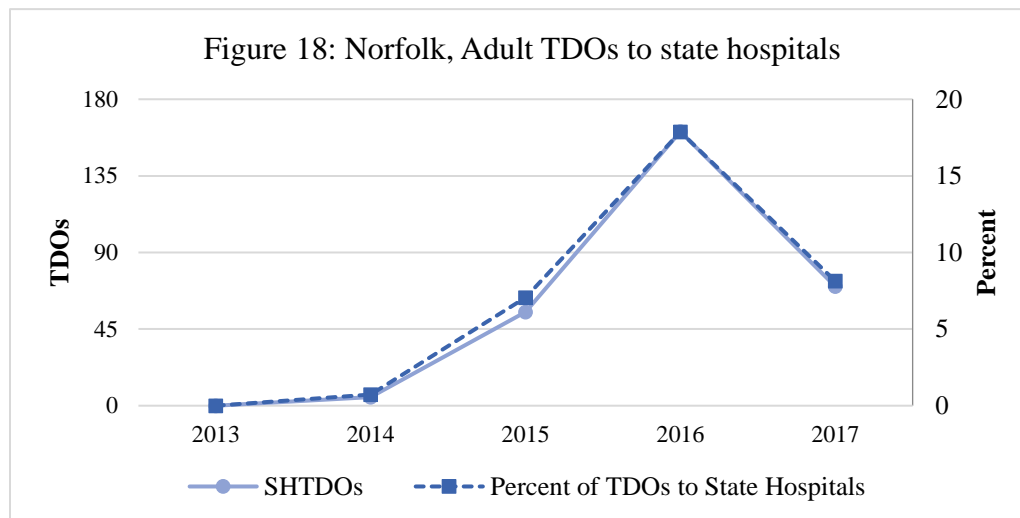


Chesapeake has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 10). The adult SMI population is somewhat high and the number of outpatient clinics is extremely low for the SMI population. A high proportion of the area population is African-American.

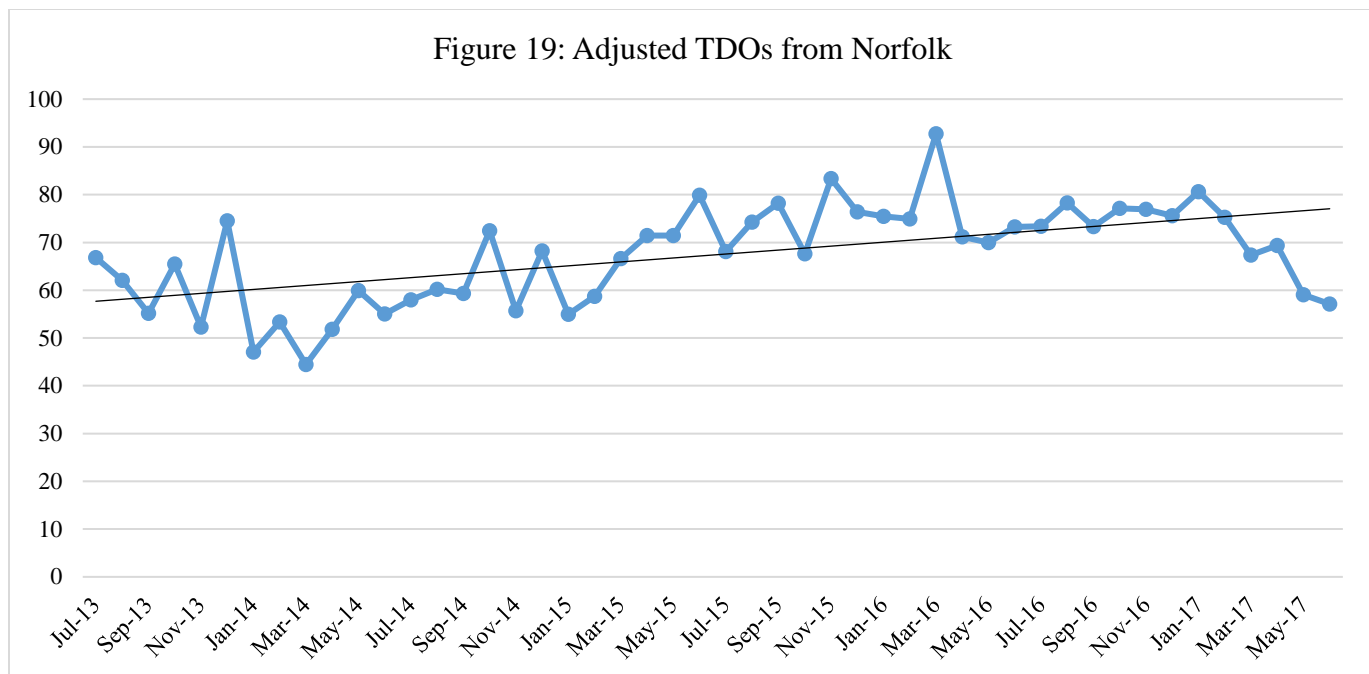
Table 10: Pertinent characteristics of Chesapeake IBH and its catchment area.	
CSB/Community Characteristic	Value for Chesapeake
Estimated adult population with SMI, 2016	13,888
Outpatient MH clinics that accept Medicaid	1
Increase in CSB SUD treatment expenditures from FY 2015 to FY 2016	\$ 2,042,116
Percent population African-American	30%
Percent CSB funding from Medicaid, 2016	36%

I. Norfolk CSB

Figure 18 shows adult TDO admissions to state hospitals from Norfolk. The number rose from fiscal year 2014 through 2016, but declined in fiscal year 2017. Across the five year period, the percent of TDOs that were admitted to state hospitals increased from 0% to 8%. In Norfolk, there are 82 psychiatric beds located in private facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Norfolk CSB rose 17%, from 732 to 859 (Figure 19). Norfolk was experiencing a downward trend at the beginning of fiscal year 2014, but the TDO decline gradually slowed and then stalled before reversing itself late in the fiscal year. There was an increase after the implementation of the GAP program, as well as a more subtle, temporary increase after the establishment of a CIT assessment center. Adult TDOs at Norfolk have been in decline over the last half of fiscal year 2017.

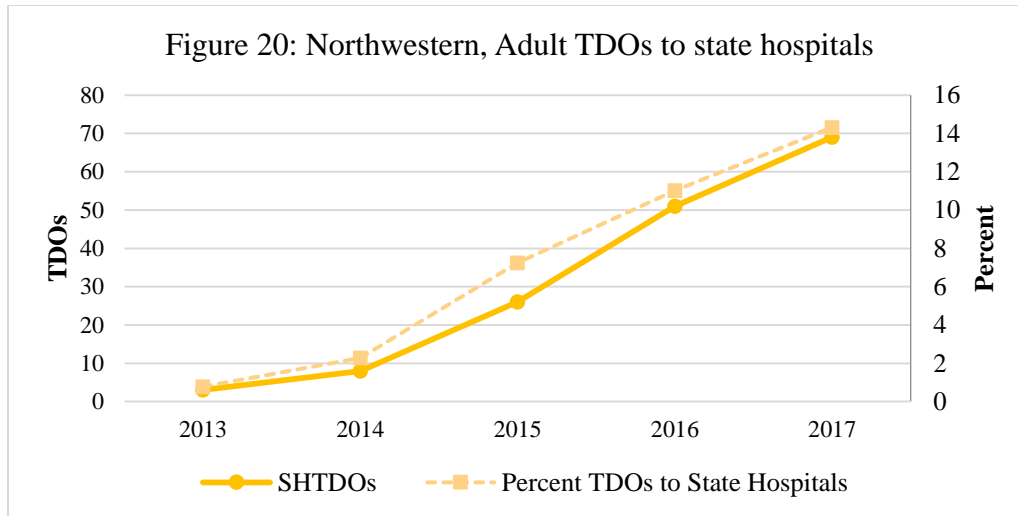


Norfolk has many characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 11). The SMI population is high, and the number of clinics is somewhat low for that population. The overall population in Norfolk includes a high proportion of African-Americans. Additionally, SUD treatment expenditures are in the top quartile for the state.

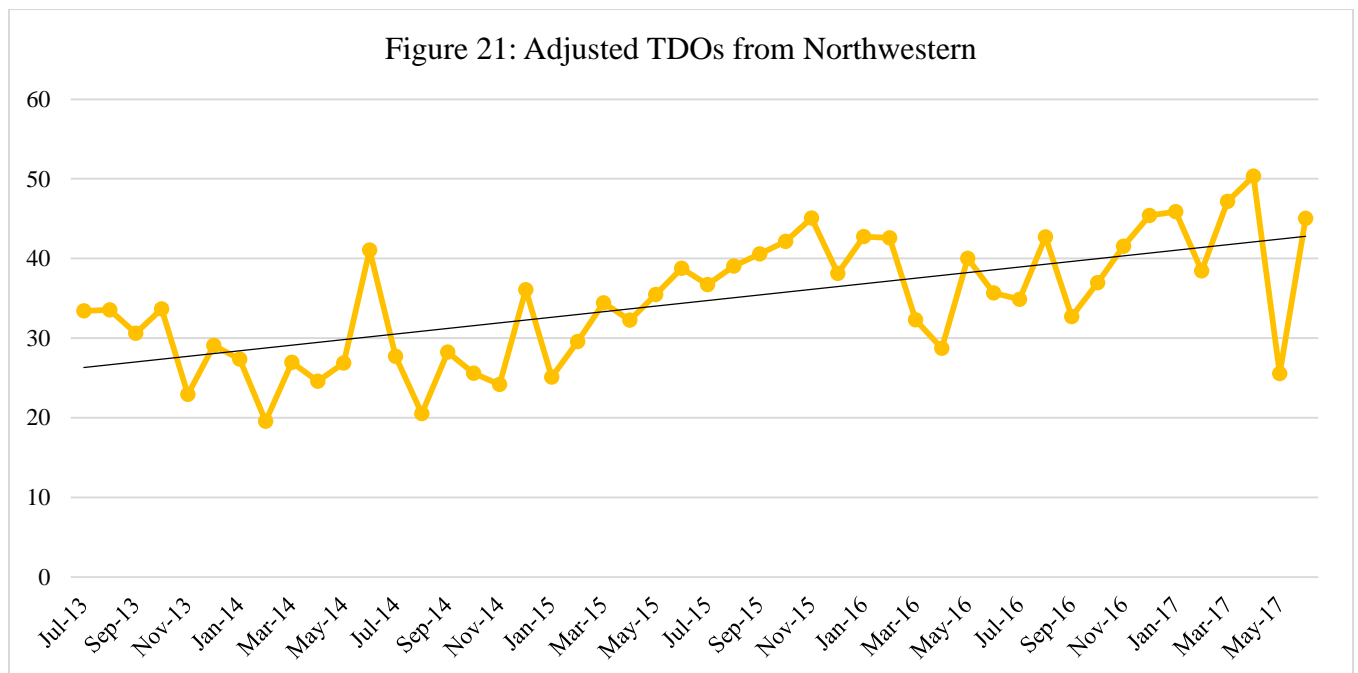
Table 11: Pertinent characteristics of Norfolk and its catchment area.	
CSB/Community Characteristic	Value for Norfolk
Estimated adult population with SMI, 2016	16,074
Outpatient MH clinics that accept Medicaid	4
CSB SUD treatment expenditures FY 2016	\$4,220,458
Percent population African-American	42%
Percent CSB funding from Medicaid, 2016	22%

J. Northwestern Community Services

Figure 20 shows adult TDO admissions to state hospitals from Northwestern. The number has increased every year for the past four years, with the greatest jump between fiscal years 2015 and 2016. The percentage of TDOs that were admitted to state hospitals increased from 1% to 14%. In the Northwestern catchment area, there are 26 psychiatric beds located in private facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Northwestern Community Services rose 25%, from 386 to 482 (Figure 21). There was a decline after the death of Austin Deeds, followed by an increase after the implementation of the GAP program, followed by an unexplained increase across fiscal year 2017.

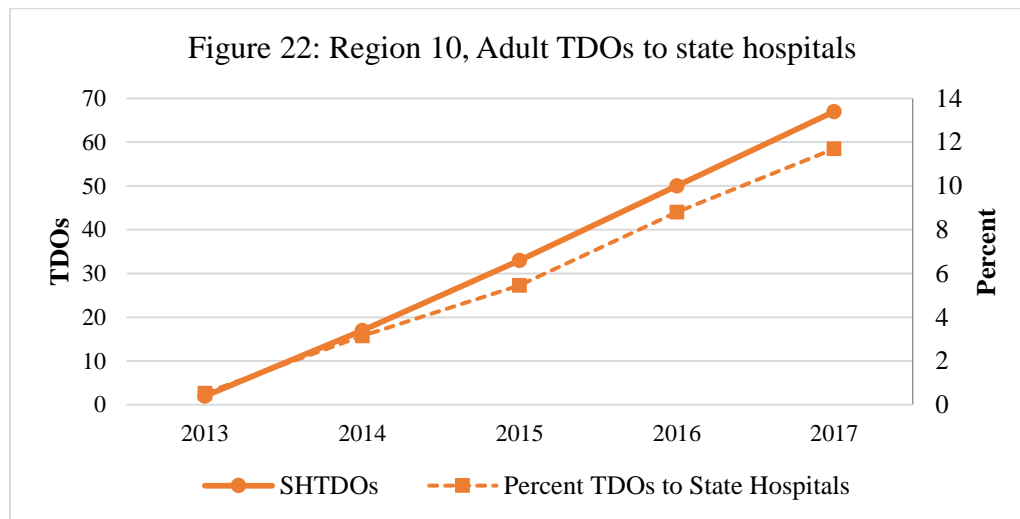


Northwestern has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 12). The adult SMI population is somewhat high and the number of outpatient clinics is quite low for their SMI population.

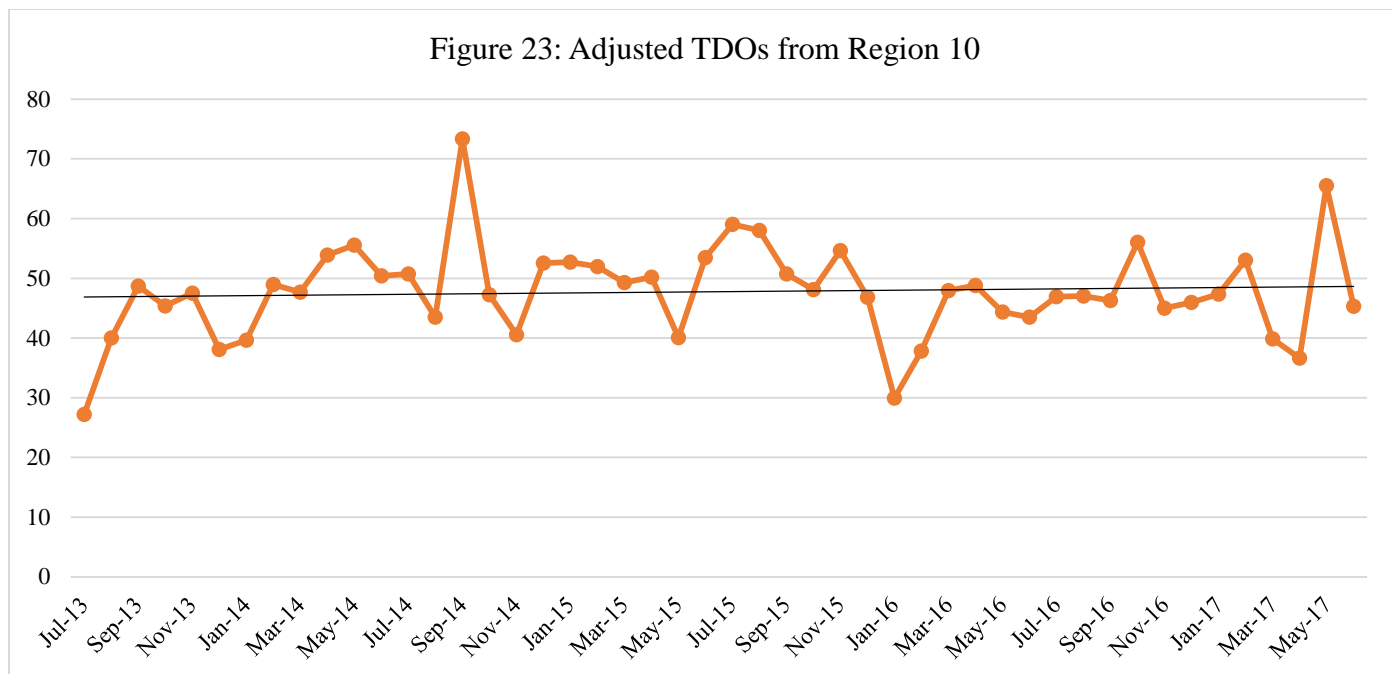
Table 12: Pertinent characteristics of Northwestern CSB and its catchment area.	
CSB/Community Characteristic	Value for Northwestern
Estimated adult population with SMI, 2016	14,477
Outpatient MH clinics that accept Medicaid	3
CSB SUD treatment expenditures FY 2016	\$1,929,938
Percent population African-American	4%
Percent CSB funding from Medicaid, 2016	40%

K. Region 10 CSB

Figure 22 shows adult TDO admissions to state hospitals from Region 10. The number increased every year for the past four years. The percent of TDOs that were admitted to state hospitals increased from 0.5% to 11%. In the Region 10 catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Region 10 CSB rose 44%, from 373 to 540 (Figure 23). There was a sharp, unexplained increase in Region 10 TDOs at the beginning of fiscal year 2014. There was a subtle increase after the establishment of a new CIT assessment center in fiscal year 2015, and a subtle decline toward the end of fiscal year 2016.

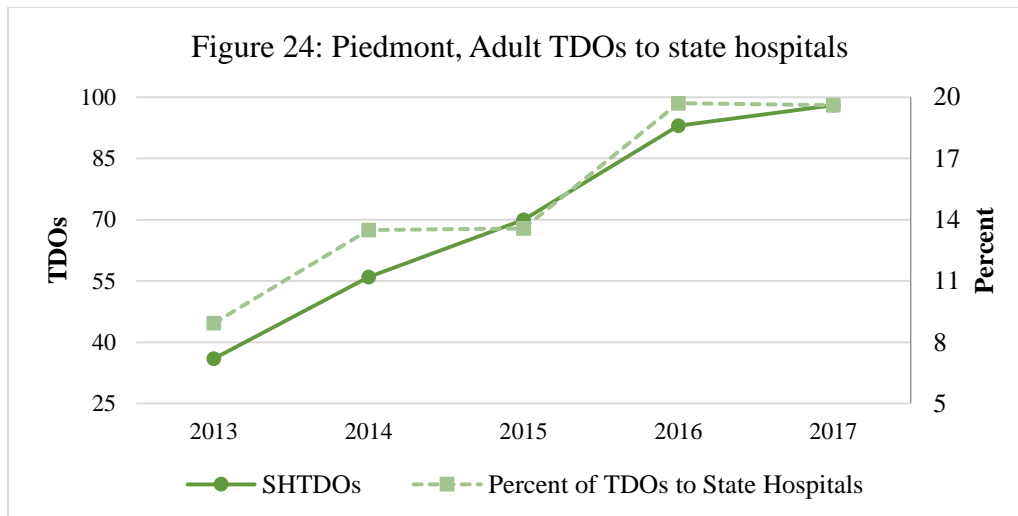


Region 10 has some characteristics that make in vulnerable to a heavy volume of evaluations and TDOs (Table 13). The SMI population is somewhat high and the CSB is very Medicaid-dependent. SUD treatment expenditures are somewhat high as well.

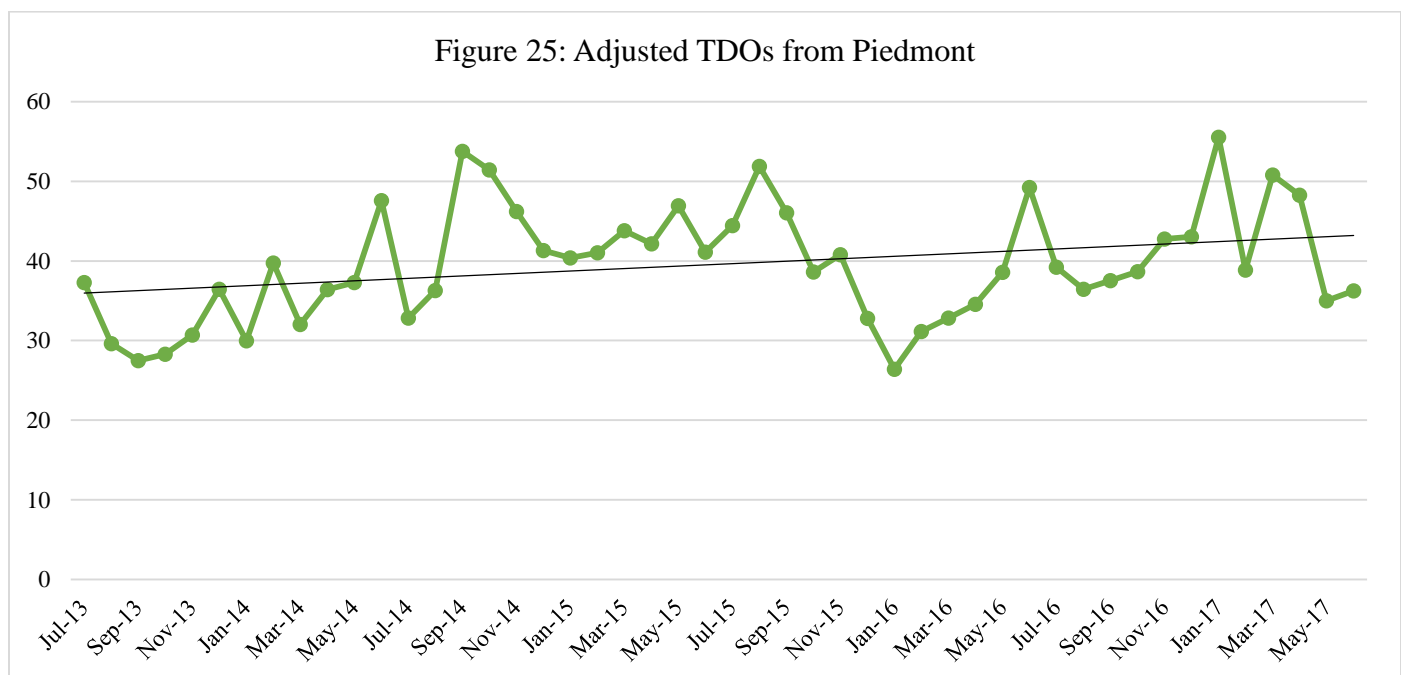
Table 13: Pertinent characteristics of Region 10 CSB and its catchment area.	
CSB/Community Characteristic	Value for Region 10
Estimated adult population with SMI, 2016	15,609
Outpatient MH clinics that accept Medicaid	11
Increase in CSB SUD treatment expenditures from FY 2015 to FY 2016	\$2,719,781
Percent population African-American	13%
Percent CSB funding from Medicaid, 2016	60%

L. Piedmont Community Services

Figure 24 shows adult TDO admissions to state hospitals from Piedmont. The number has increased every year for the past four years, with the greatest jump between fiscal years 2015 and 2016. In the Piedmont catchment area, there are currently 12 psychiatric beds in private facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Piedmont Community Services rose 24%, from 403 to 500 (Figure 25). The CSB saw a dramatic increase in TDOs in the second half of fiscal year 2014. This may have been related to the death of Austin Deeds or the establishment of a new CIT assessment center, or both. There was a partial decline in the fall of 2014, followed by an increase after the implementation of the GAP program. There was an unexplained increase in the winter of fiscal year 2017.

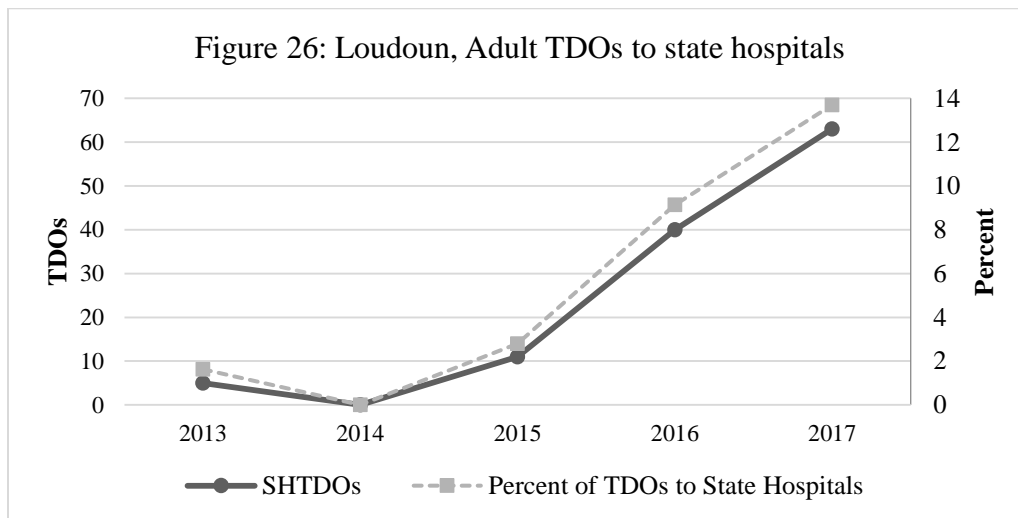


Piedmont CSB is highly Medicaid-dependent, which puts the area at risk for a heavy volume of TDOs (Table 14).

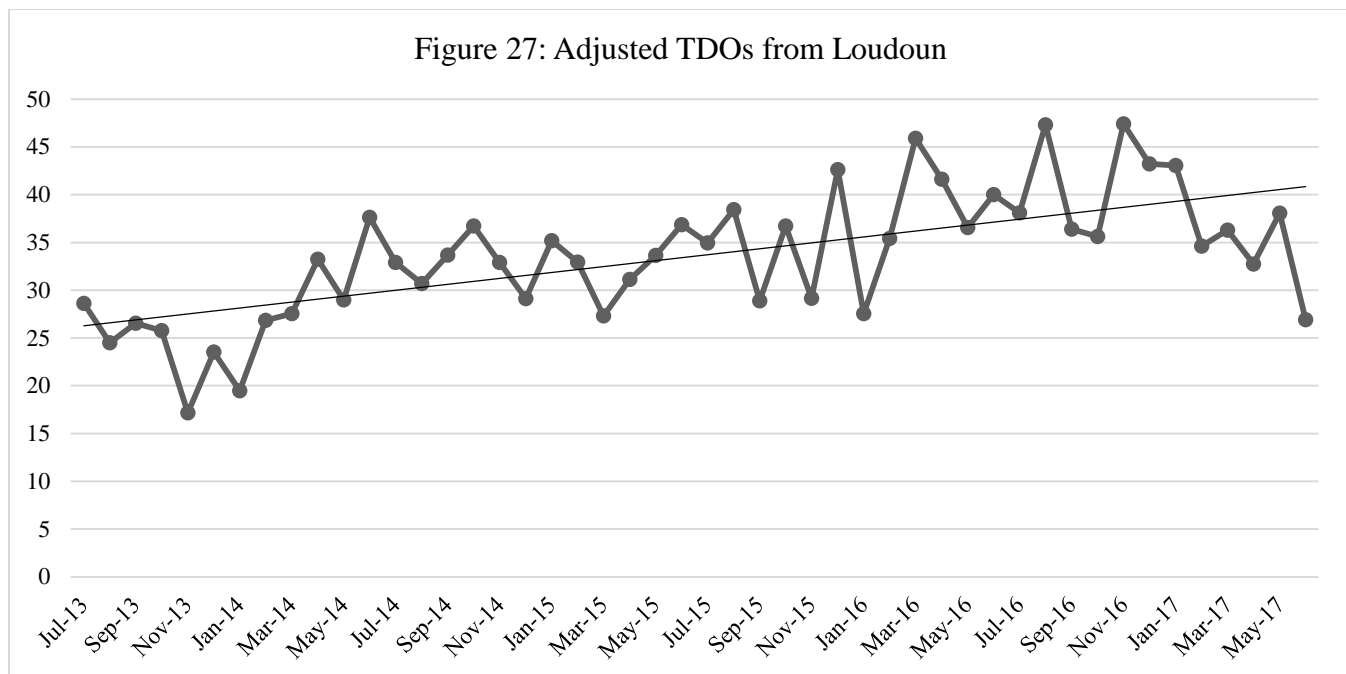
Table 14: Pertinent characteristics of Piedmont CSB and its catchment area.	
CSB/Community Characteristic	Value for Piedmont
Estimated adult population with SMI, 2016	10,479
Outpatient MH clinics that accept Medicaid	4
CSB SUD treatment expenditures FY 2016	\$2,213,831
Percent population African-American	19%
Percent CSB funding from Medicaid, 2016	61%

M. Loudoun County CSB

Figure 26 shows adult TDO admissions to state hospitals from Loudoun. The number has increased every year for the past three years, with equally large increases from 2015 to 2016 and from 2016 to 2017. The percent of TDOs that were admitted to state hospitals increased from 2% to 14%, across the period. In Loudoun County, there are 37 psychiatric beds in private facilities that accept TDO admissions; however, only 22 of those beds are for adults.



From 2013 to 2017, TDOs from Loudoun County CSB rose 49%, from 308 to 460 (Figure 27). TDOs were on a downward trend at the beginning of fiscal year 2014, but the Deeds incident appears to have reversed that trend. There was another increase in fiscal year 2016, which may have been related to the establishment of a new CIT assessment center, or it may have been related to a string of highly publicized suicides that happened in Loudoun County at that time. There was also a new emergency department opened in Ashburn in October 2015. All three factors could have contributed. An unexplained decline has occurred across fiscal year 2017.

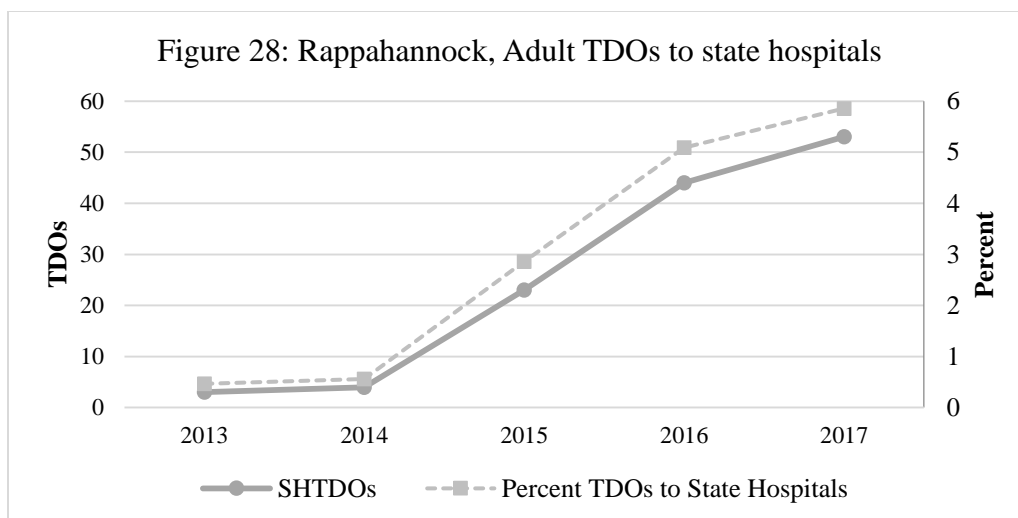


Loudoun County has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 15). The SMI population is somewhat high and the number of outpatient MH clinics is very low for their SMI population.

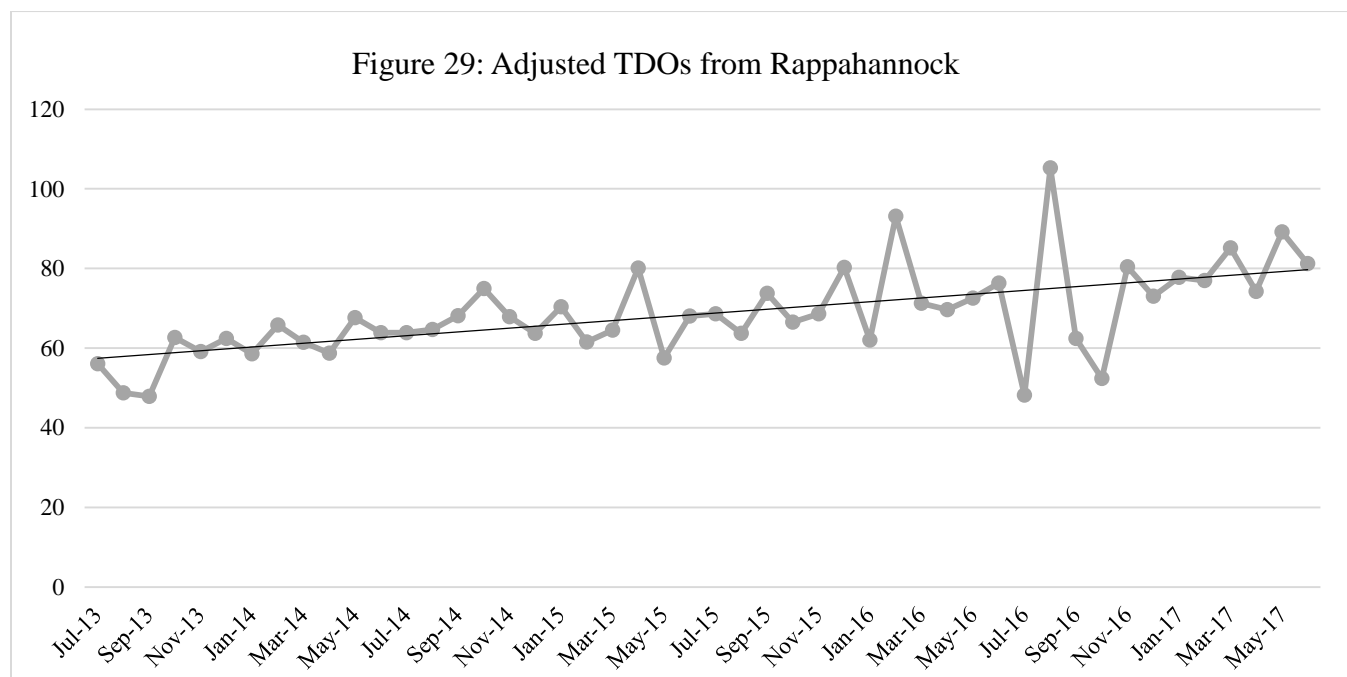
Table 15: Pertinent characteristics of Loudoun CSB and its catchment area.	
CSB/Community Characteristic	Value for Loudoun
Estimated adult population with SMI, 2016	15,680
Outpatient MH clinics that accept Medicaid	2
CSB SUD treatment expenditures FY 2016	\$2,499,023
Percent population African-American	7%
Percent CSB funding from Medicaid, 2016	22%

N. Rappahannock Area CSB

Figure 28 shows adult TDO admissions to state hospitals from Rappahannock. The number increased every year for the past three years, with the greatest increase from fiscal year 2015 to 2016. The percentage of TDOs that were admitted to state hospitals rose from 0.5% to 6%. In the Rappahannock catchment area, there are 74 psychiatric beds in private facilities that accept TDO admissions.



From fiscal year 2013 to 2017, adult TDOs from Rappahannock Area CSB rose 41%, from 644 to 905 (Figure 29). Rappahannock Area has seen a very gradual, steady increase in TDOs across most of the period, with a more dramatic increase following the establishment of a new CIT assessment center in fiscal year 2016.

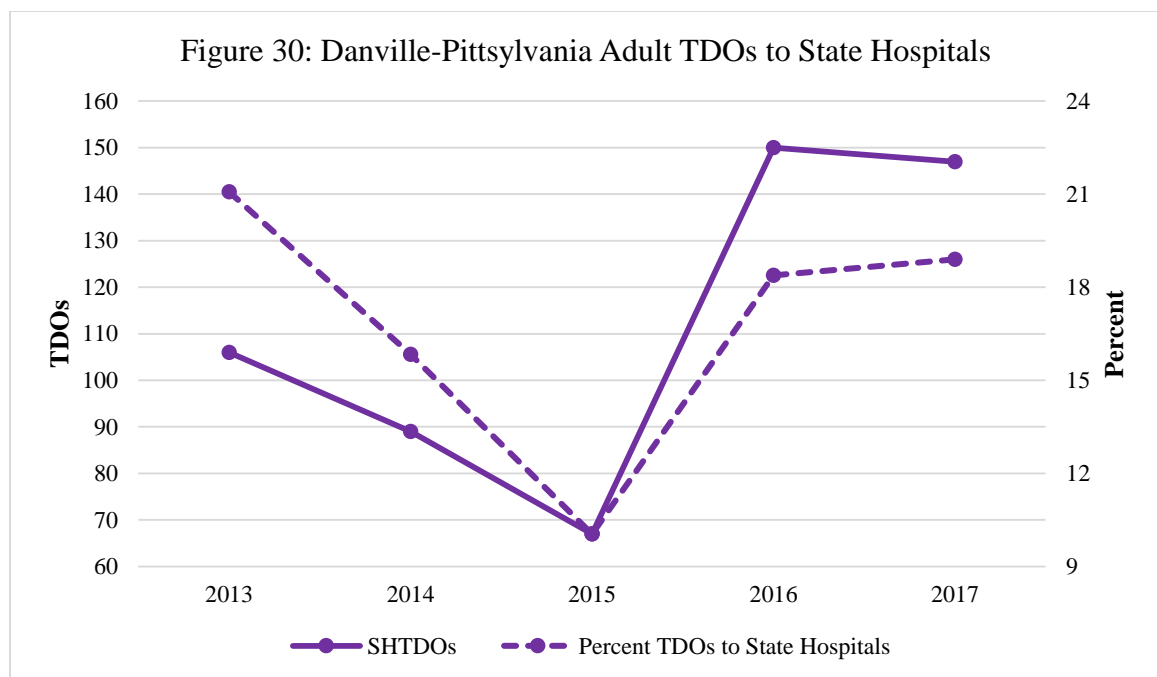


Rappahannock Area has some characteristics that make it vulnerable to a heavy volume of evaluations and TDOs (Table 16). The SMI population is in the top quartile for the state and the number of outpatient clinics is somewhat low for the SMI population. The CSB is also very Medicaid-dependent.

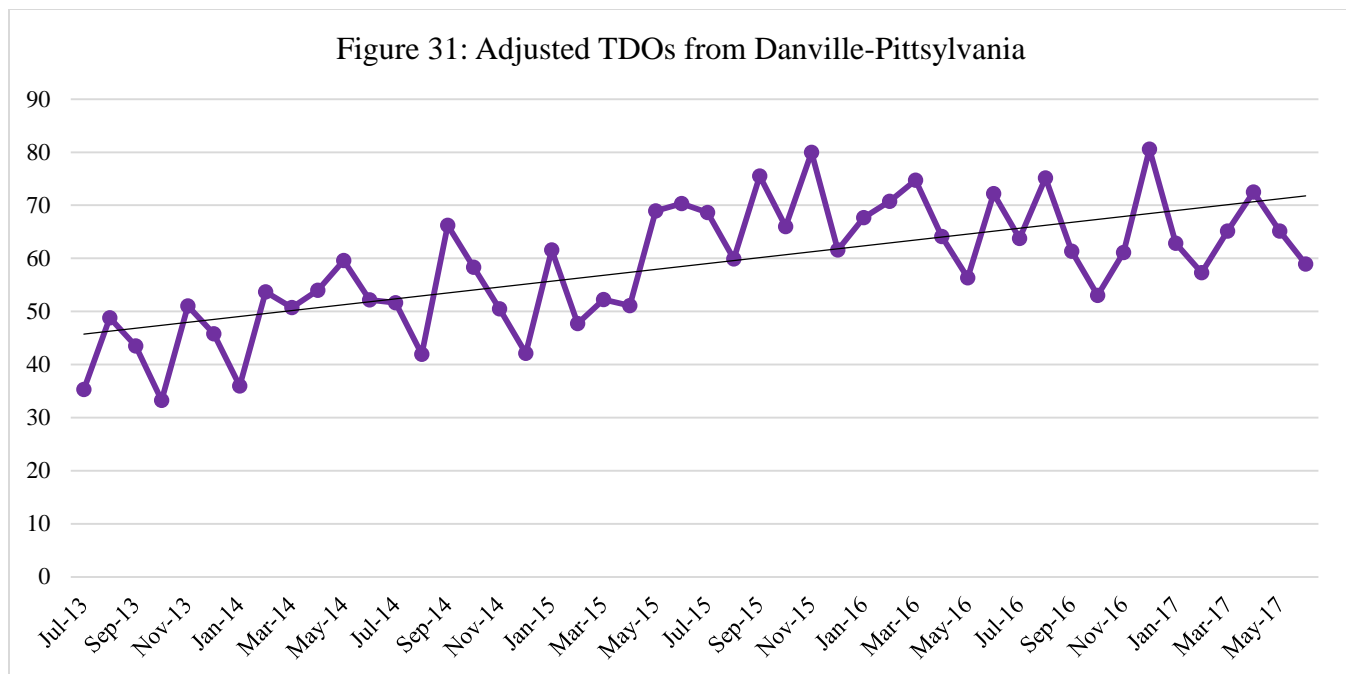
Table 16: Pertinent characteristics of Rappahannock and its catchment area.	
CSB/Community Characteristic	Value for Rappahannock
Estimated adult population with SMI, 2016	19,722
Outpatient MH clinics that accept Medicaid	5
CSB SUD treatment expenditures FY 2016	\$2,112,433
Percent population African-American	18%
Percent CSB funding from Medicaid, 2016	60%

O. Danville-Pittsylvania CSB

Figure 30 shows adult TDO admissions from Danville-Pittsylvania CSB to state hospitals. The number declined from 2013 to 2015, before increasing dramatically in 2016. The percent of TDOs that were admitted to state hospitals declined from 21% to 19%. In the Danville-Pittsylvania catchment area, there are 25 psychiatric beds in private facilities that accept TDO admissions.



From 2013 to 2017, adult TDOs from Danville-Pittsylvania rose 55%, from 503 to 778 (Figure 31). These are somewhat high values for their respective years. Danville-Pittsylvania saw an increase in adult TDOs following the Deeds incident, and again following implementation of the GAP program.

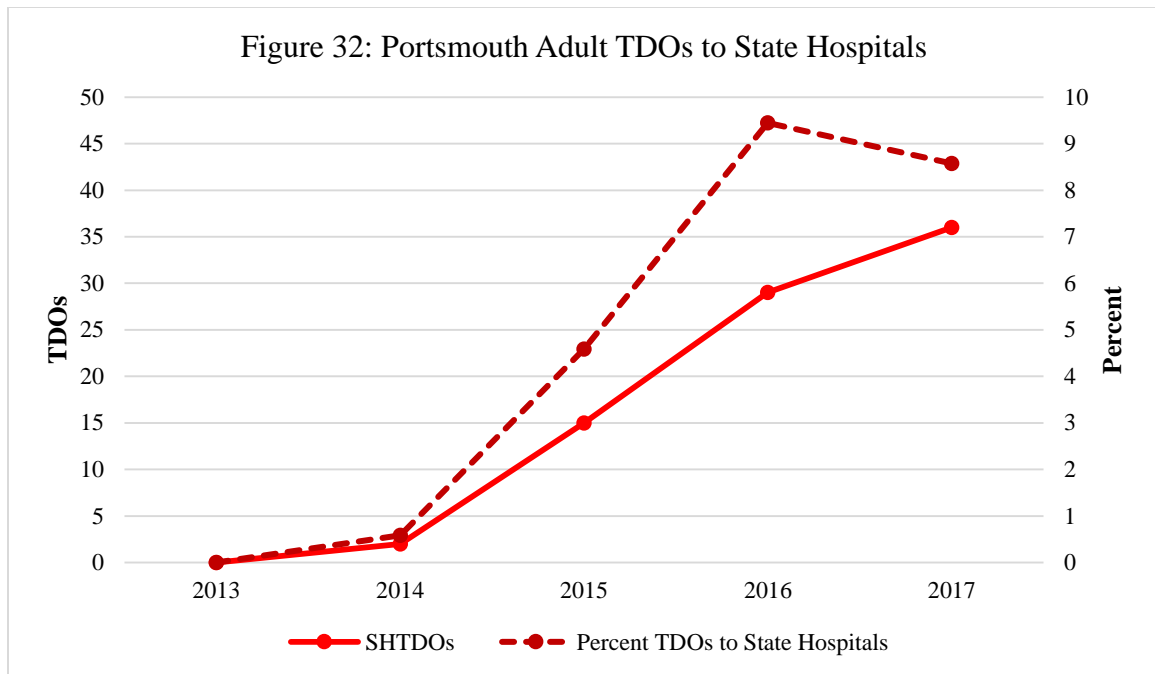


Danville-Pittsylvania does not have any of the community risk factors for a high volume of TDOs (Table 17), except for a somewhat high proportion of the population that are African-American.

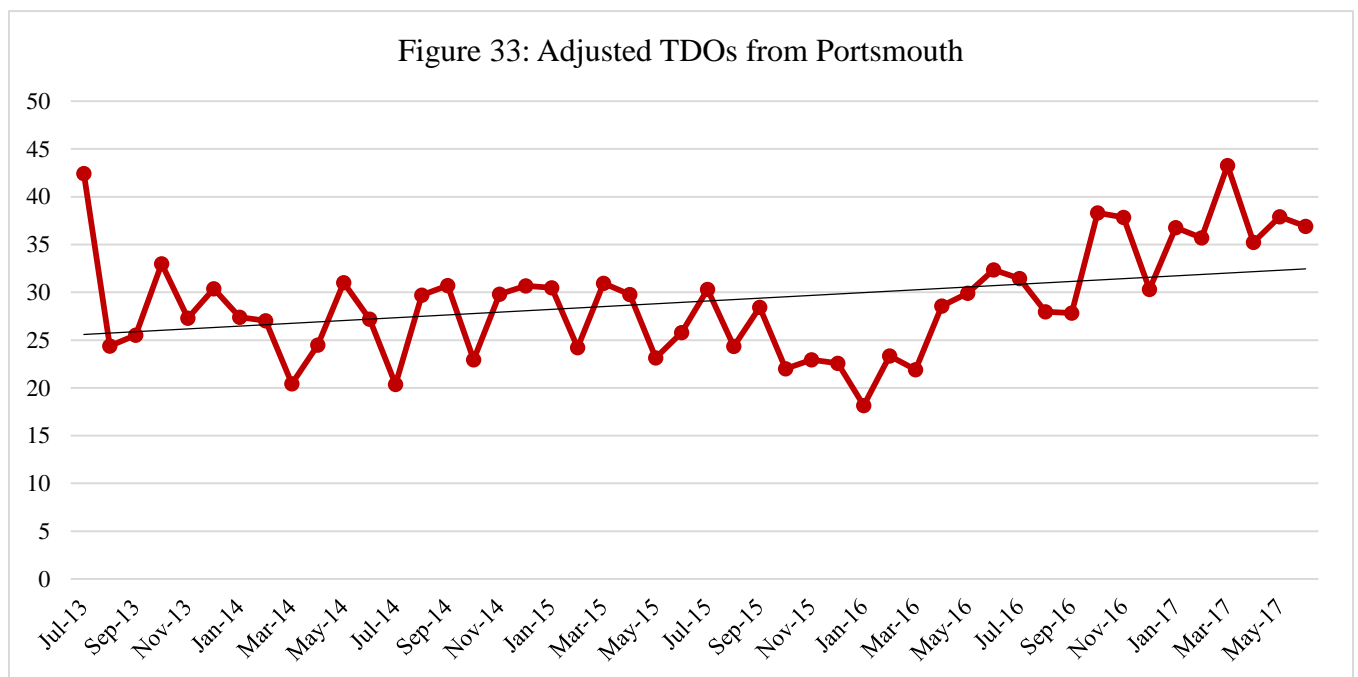
Table 17: Pertinent characteristics of Danville-Pittsylvania CSB and its catchment area.	
CSB/Community Characteristic	Value for Danville-Pittsylvania
Estimated adult population with SMI, 2016	7484
Outpatient MH clinics that accept Medicaid	2
SUD treatment expenditures, 2016	\$1,672,280
Percent population African-American	21%
Percent CSB funding from Medicaid, 2016	45%

P. Portsmouth Behavioral Health

Figure 32 shows adult TDO admissions from Portsmouth to state hospitals. The number has increased each fiscal year for the past four years with the greatest increases from 2014 to 2016. The percent of TDOs that were admitted to state hospitals rose from 0% to 9%, across the period. In the Portsmouth catchment area, there are 54 psychiatric beds in private facilities that accept TDO admissions, although, in 2017, 30 of those beds were taken offline due to staffing shortages.



From 2013 to 2017, adult TDOs from Portsmouth rose 31%, from 320 to 420 (Figure 33). Portsmouth saw a decline in TDOs across the first half of fiscal year 2016 that was reversed over the second half of that year. There was an unexplained increase in fiscal year 2017.



Portsmouth has a very high proportion of the population that are African-American (Table 18), which makes it vulnerable to high volumes of TDOs.

Table 18: Pertinent characteristics of Portsmouth Behavioral Health and its catchment area.	
CSB/Community Characteristic	Value for Portsmouth
Estimated adult population with SMI, 2016	6558
Outpatient MH clinics that accept Medicaid	3
SUD treatment expenditures, 2016	\$ 2,282,821
Percent population African-American	53%
Percent CSB funding from Medicaid, 2016	27%

VI. CSBs with Increased TDOs to State Hospitals without Overall TDO Increase (Category 2)

In eight CSBs, adult TDO admissions to state hospitals increased without an accompanying increase in TDOs. When an increase in state hospital admissions is not accompanied by an overall increase in TDOs, this probably reflects a decline in private hospital admissions.

Figure 34 shows adult TDO admissions from New River Valley Community Services to state hospitals. The number increased in fiscal year 2014 and again in 2016. Across the period, the percent of TDOs that were admitted to state hospitals increased from 7% to 23%. In the New River Valley catchment area, there are 36 psychiatric beds in private facilities that accept TDO admissions.

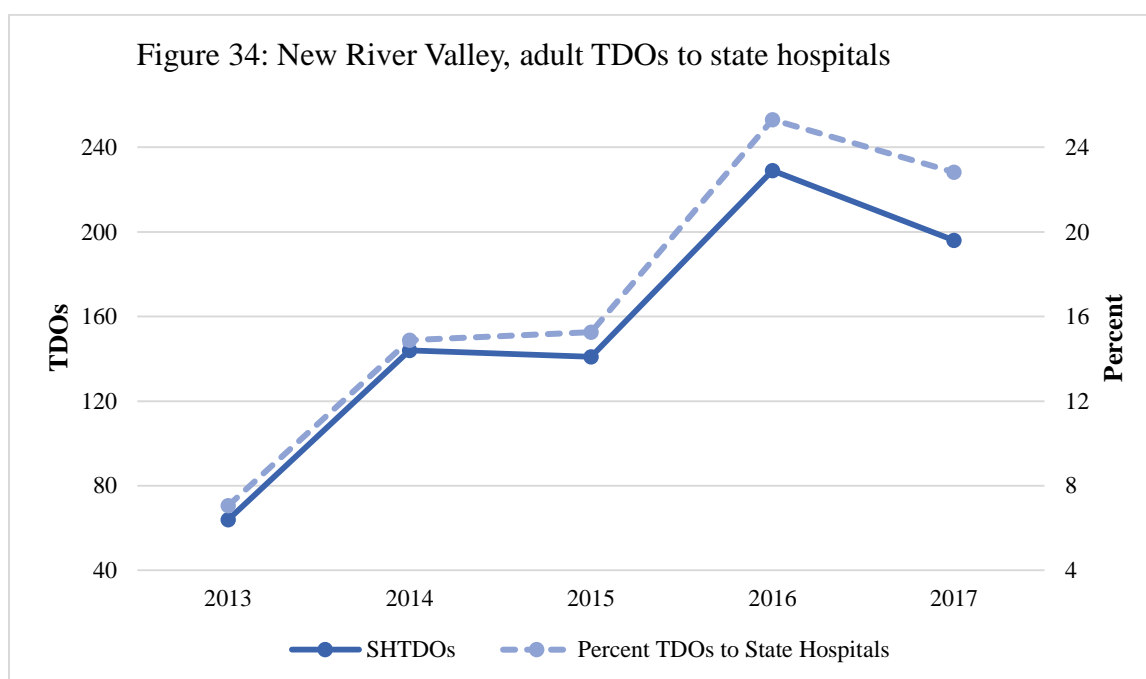


Figure 35 shows adult TDO admissions from Richmond Behavioral Health to state hospitals. The number increased slightly from fiscal years 2014 to 2015, and dramatically in

fiscal year 2016. The percent of TDOs that were admitted to state hospitals increased from 1% to 6%. In the Richmond catchment area, there are 273 psychiatric beds in private facilities that accept TDO admissions.

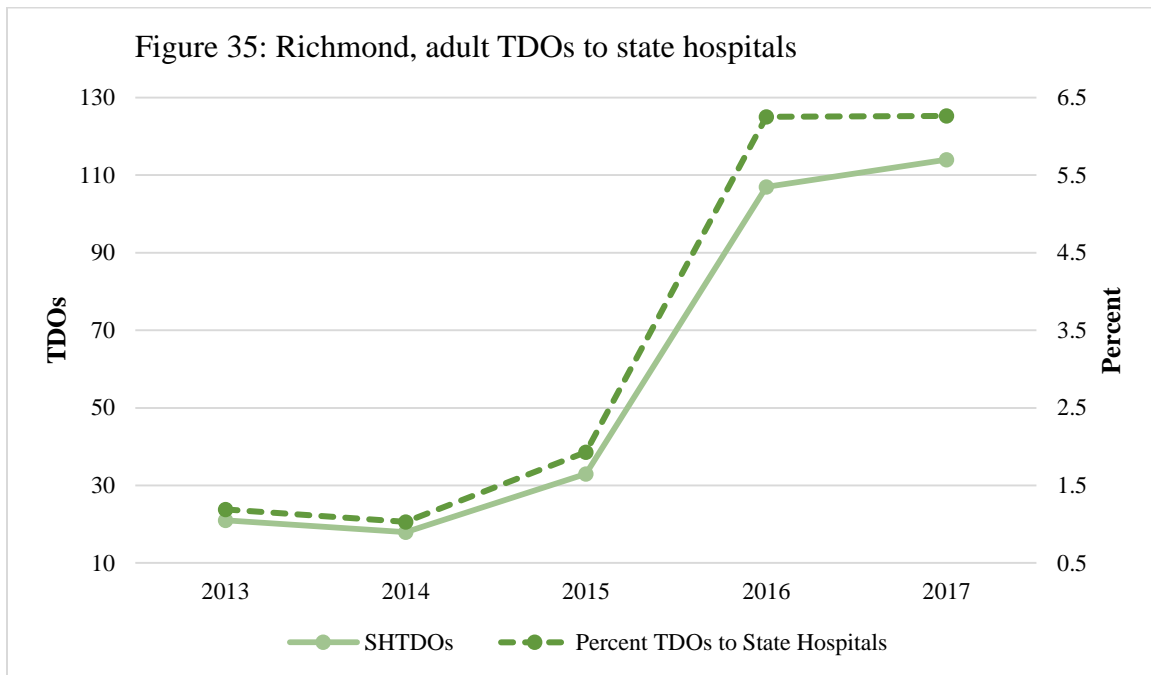


Figure 36 shows adult TDO admissions from Horizon Behavioral Health to state hospitals. The number has increased each fiscal year for the past four years, with the greatest increase observed from 2015 to 2016. The percent of TDOs admitted to state hospitals increased from 0.5% to 9%. In the Horizon catchment area, there are 64 psychiatric beds in private facilities that accept TDO admissions.

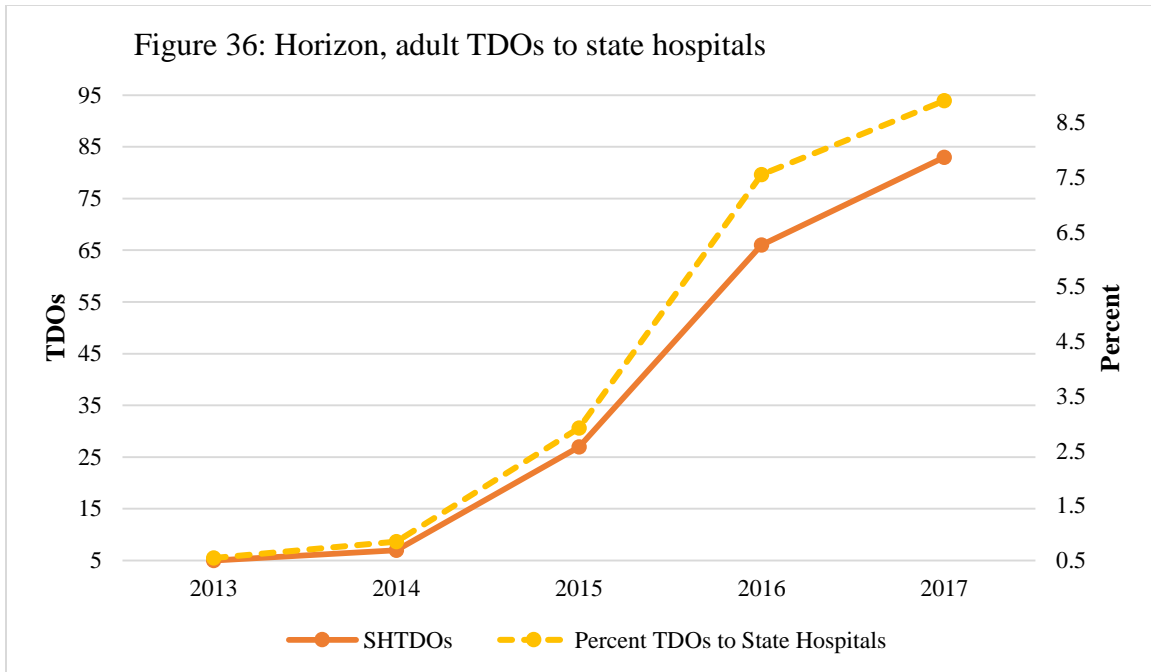


Figure 37 shows adult TDO admissions from Hampton-Newport News CSB to state hospitals. The number has increased each fiscal year from 2014 to 2016, with the greatest increase observed from 2014 to 2015. The percent of TDOs admitted to state hospital has grown from 0.2% to 6%. In the Hampton Newport-News catchment area, there are 103 psychiatric beds in private facilities that accept TDO admissions.

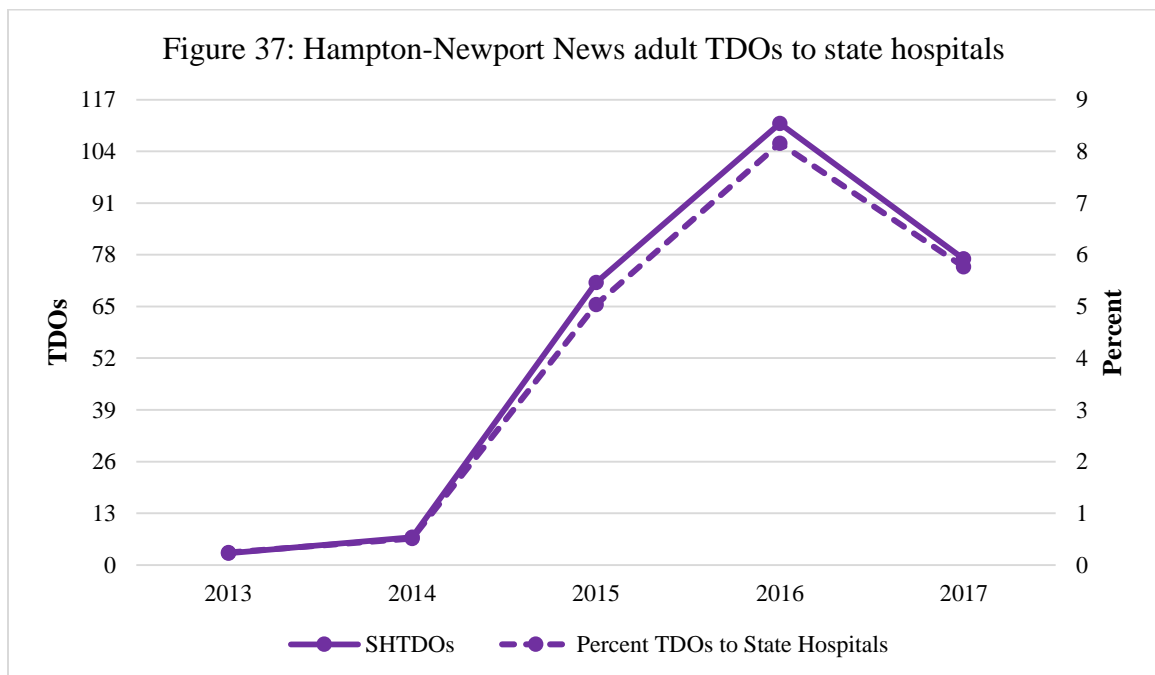


Figure 38 shows adult TDO admissions from Virginia Beach Behavioral Health to state hospitals. The number increased from fiscal year 2014 to 2016. The percent of TDOs that are admitted to state hospitals have grown from 0.4% to 5%. In the Virginia Beach catchment area, there are 124 psychiatric beds in private facilities that accept TDO admissions.

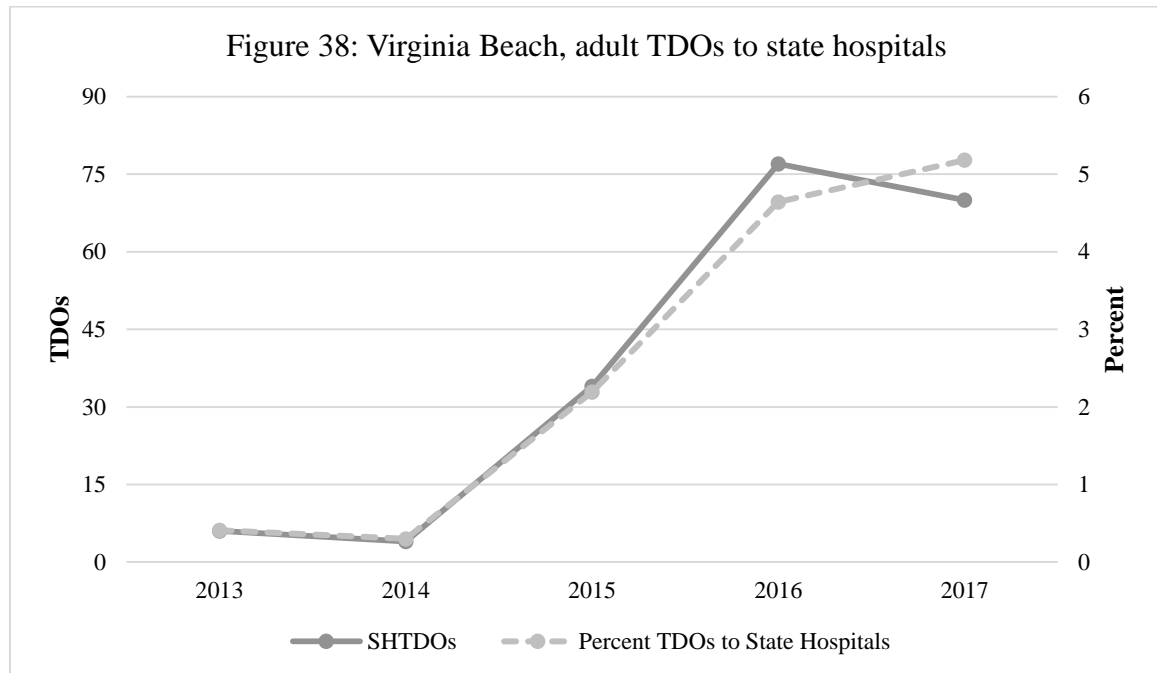


Figure 39 shows adult TDO admissions to state hospitals from Western Tidewater. The number increased each fiscal year from 2014 to 2016, with the greatest increase observed from 2015 to 2016. In the Western Tidewater catchment area, there are 10 psychiatric beds in private facilities that accept TDO admissions.

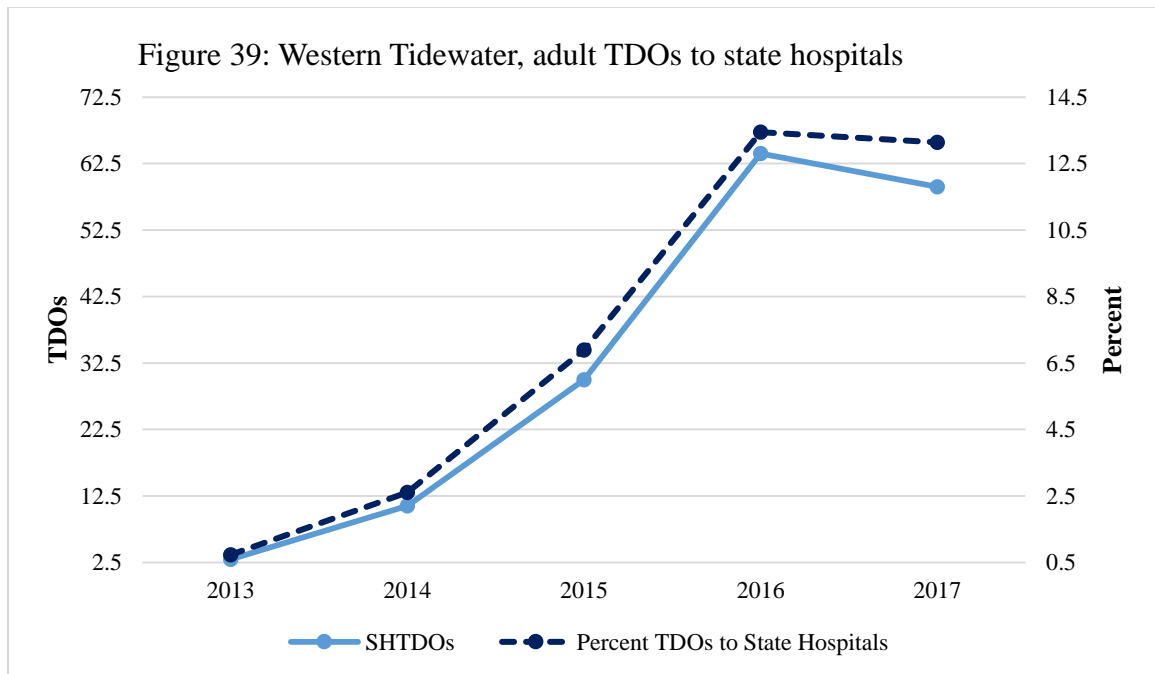


Figure 40 shows adult TDO admissions to state hospitals from District 19 CSB. The number increased each fiscal year for the past four years, with the greatest increase from 2015 to 2016. The percentage of TDOs to state hospitals rose from 0.6% to 6.5%. In the District 19 catchment area, there are 274 psychiatric beds in private facilities that accept TDO admissions.

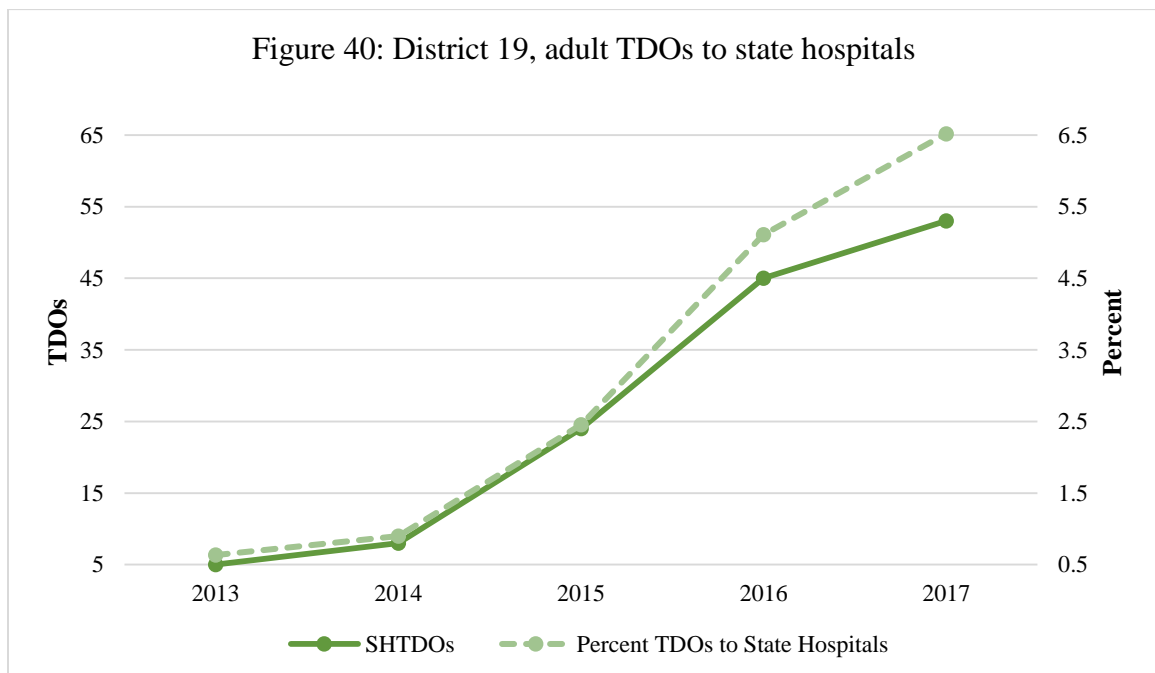
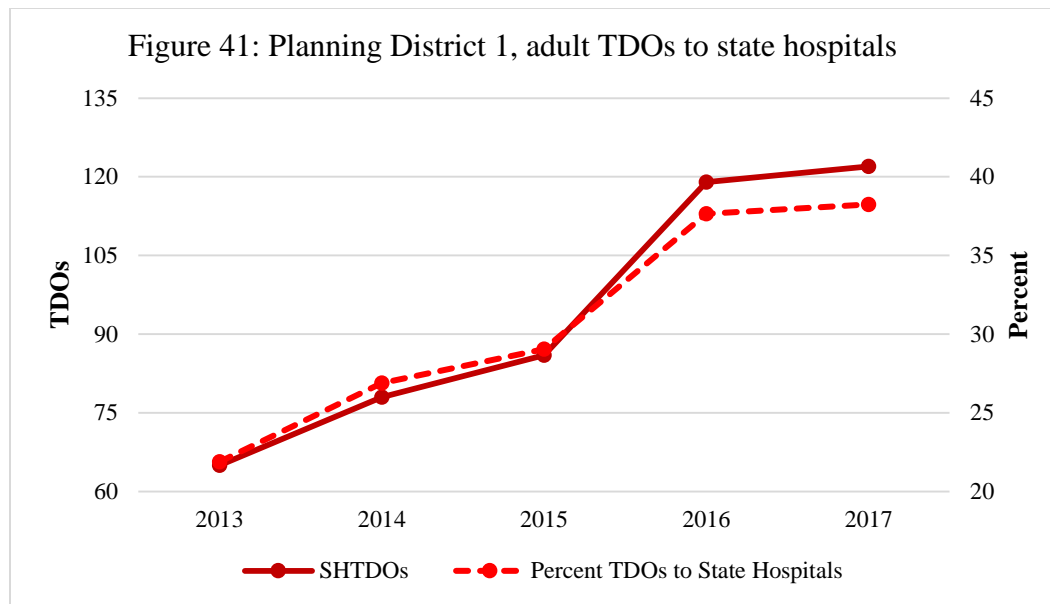


Figure 41 shows adult TDO admissions to state hospitals from Planning District 1 CSB. The number has increased each fiscal year for the past four years, with the greatest increase observed from 2015 to 2016. The percent of TDOs that were admitted to state hospitals rose from 22% to 38%. In the Planning District 1 catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.



VII. Limitations of Study

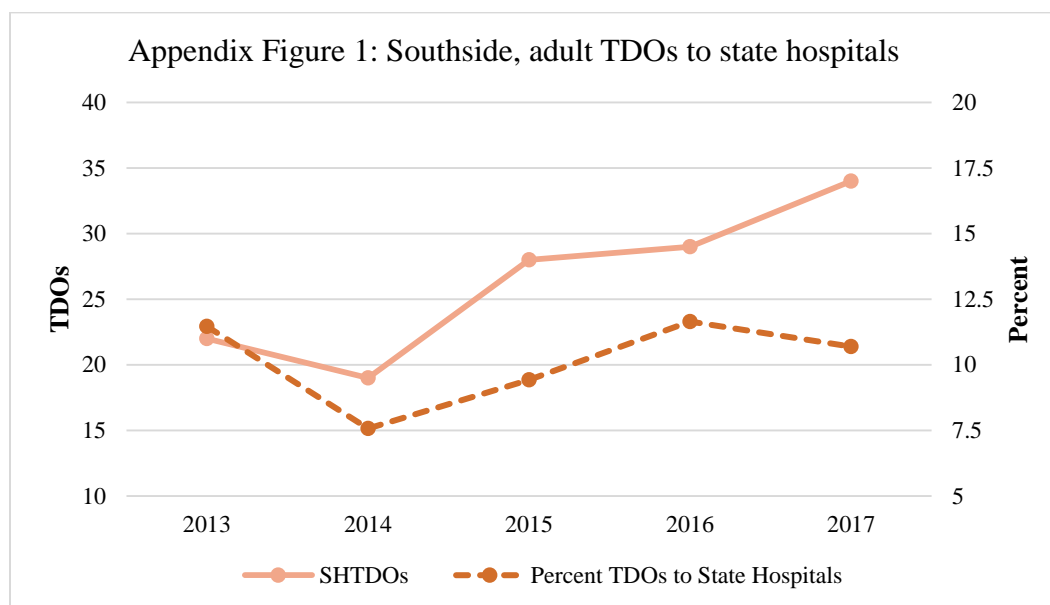
There are a number of limitations to bear in mind when interpreting these results. Demographic data, population estimates and some information on SUD were not available for fiscal year 2017. One cannot assume that these variables have remained static since 2016, or that the change from 2016 to 2017 was identical to the change from 2015 to 2016. Furthermore, the analysis of demographic data is ecological. This means that, for example, we cannot know how much of the risk of involuntary detention is related to the client being African-American, and how much is related to living in a largely African-American community, independent of the client's race. With regard to the identified pivotal events in the history of Virginia TDOs, the fact that they were followed by an increase in TDOs suggests a connection, but does not prove it.

Appendix A: Trends in among CSBs with Increasing TDOs but Stable State Hospital Admissions (Category 3)

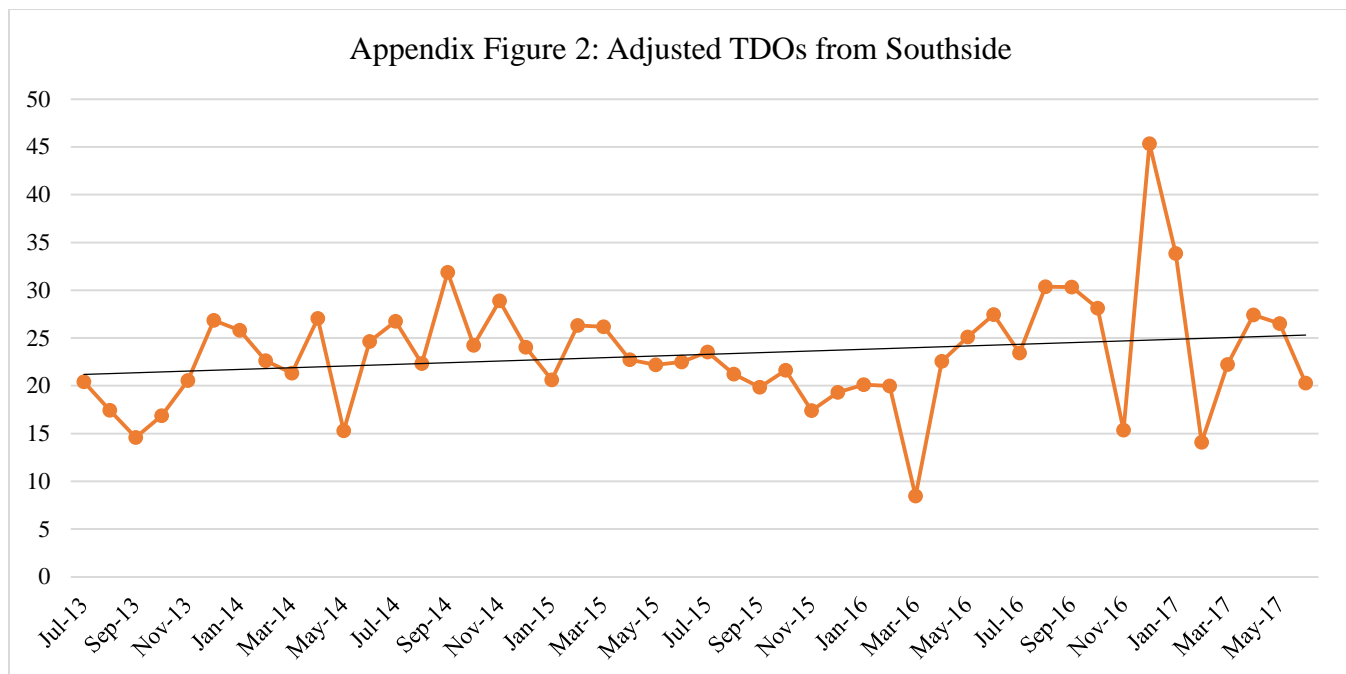
There were five CSBs that did not experience a sizable increase in state hospital TDO admissions, in spite of a marked increase in TDOs overall. Where this is the case, the increase in TDOs has probably been absorbed by private psychiatric facilities. The following charts demonstrate the increases in TDOs for each CSB, as well as the lack of change in TDOs to state hospitals. Information related to each CSB is presented in descending order of the number of TDO admissions to state hospitals in fiscal year 2017.

A. Southside

Appendix Figure 1 shows adult TDO admissions to state hospitals from Southside CSB. The number has increased only slightly for the past three years. The percent of TDOs that were admitted to state hospitals declined from 11.5% to 10.5%. In the Southside catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.

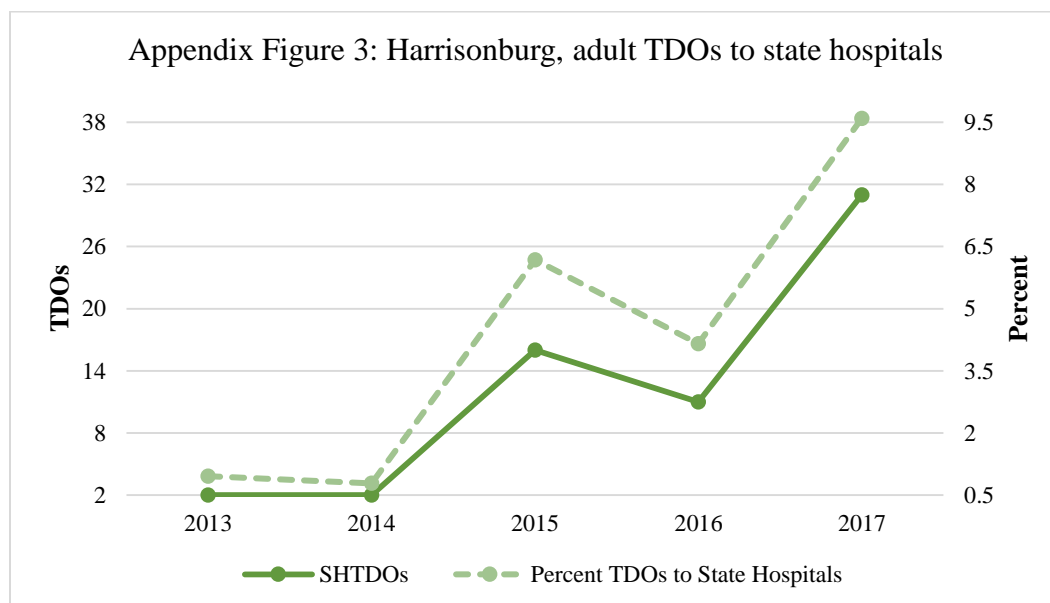


From 2013 to 2017, adult TDOs from Southside rose 66%, from 192 to 318 (Appendix Figure 2). Southside saw an increase in TDOs following the Deeds incident. There was also a short-lived increase following the last resort legislation. There was a decline following the implementation of the GAP program. There was a temporary increase following the establishment of a CIT assessment center in fiscal year 2017.

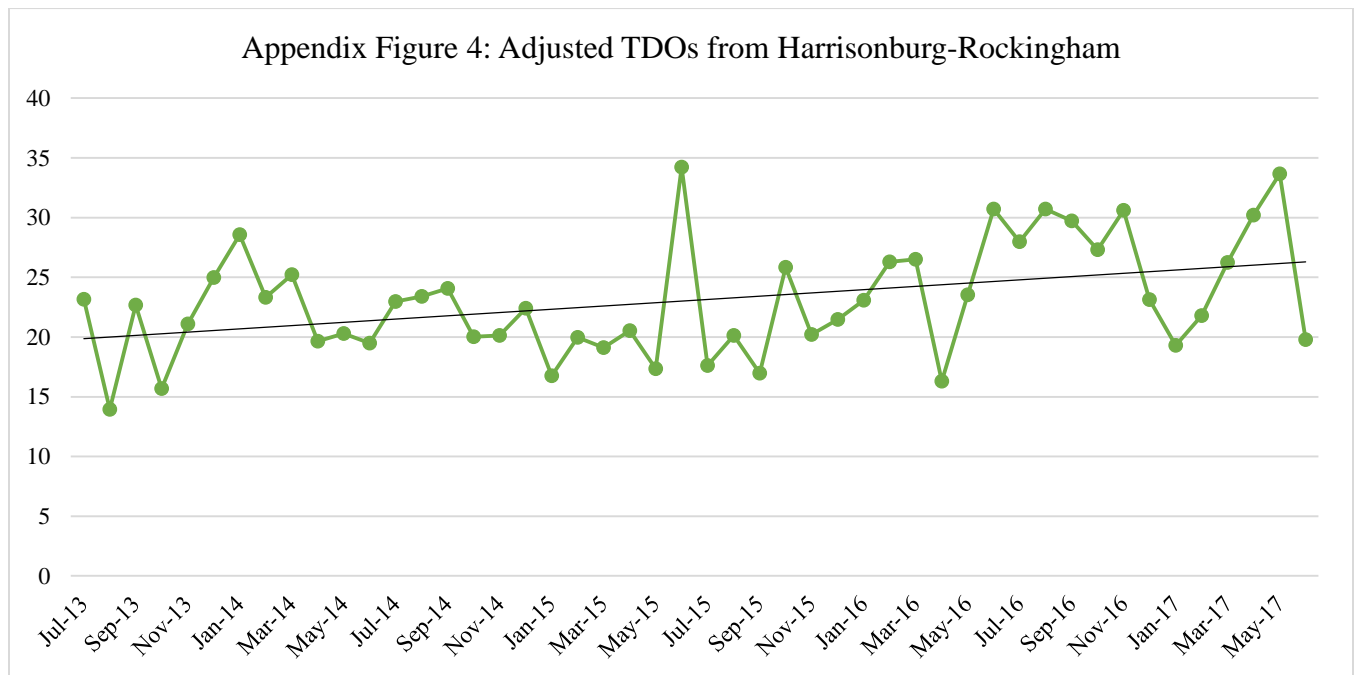


B. Harrisonburg-Rockingham

Appendix Figure 3 shows adult TDO admissions to state hospitals from Harrisonburg-Rockingham CSB. The number increased from fiscal year 2014 to 2015, and again from 2016 to 2017. The percent of TDOs that were admitted to state hospitals increased from 1% to 10%. In the Harrisonburg-Rockingham catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.

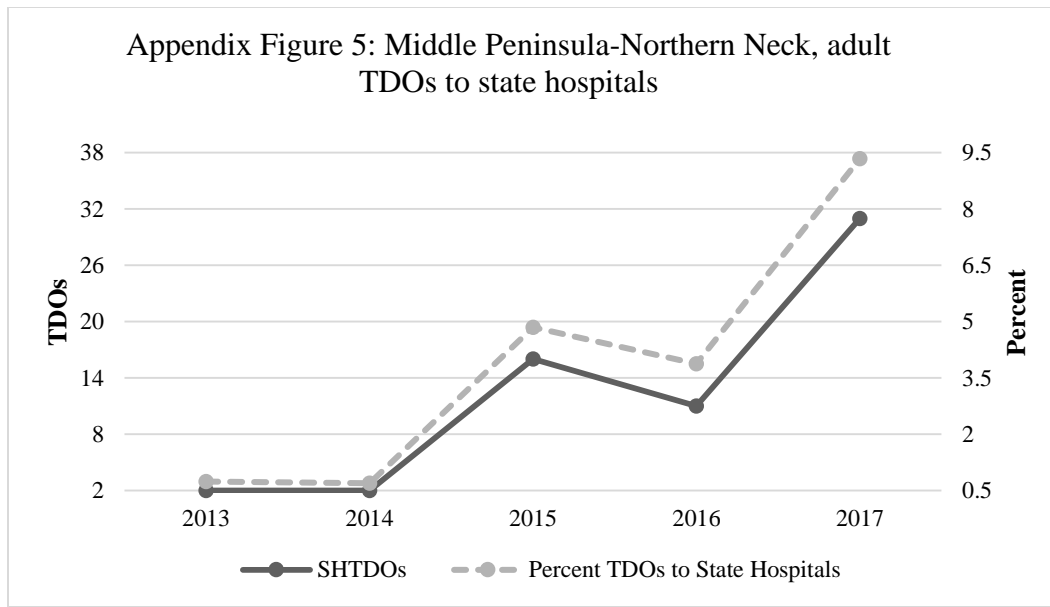


From 2013 to 2017, adult TDOs from Harrisonburg-Rockingham rose 54%, from 209 to 323 (Appendix Figure 4). Harrisonburg-Rockingham saw a temporary increase in TDOs following the Deeds incident. There was also a short-lived increase following the last resort legislation. There was a decline following the implementation of the GAP program and a substantial increase in TDOs following the establishment of a CIT assessment center in fiscal year 2016.

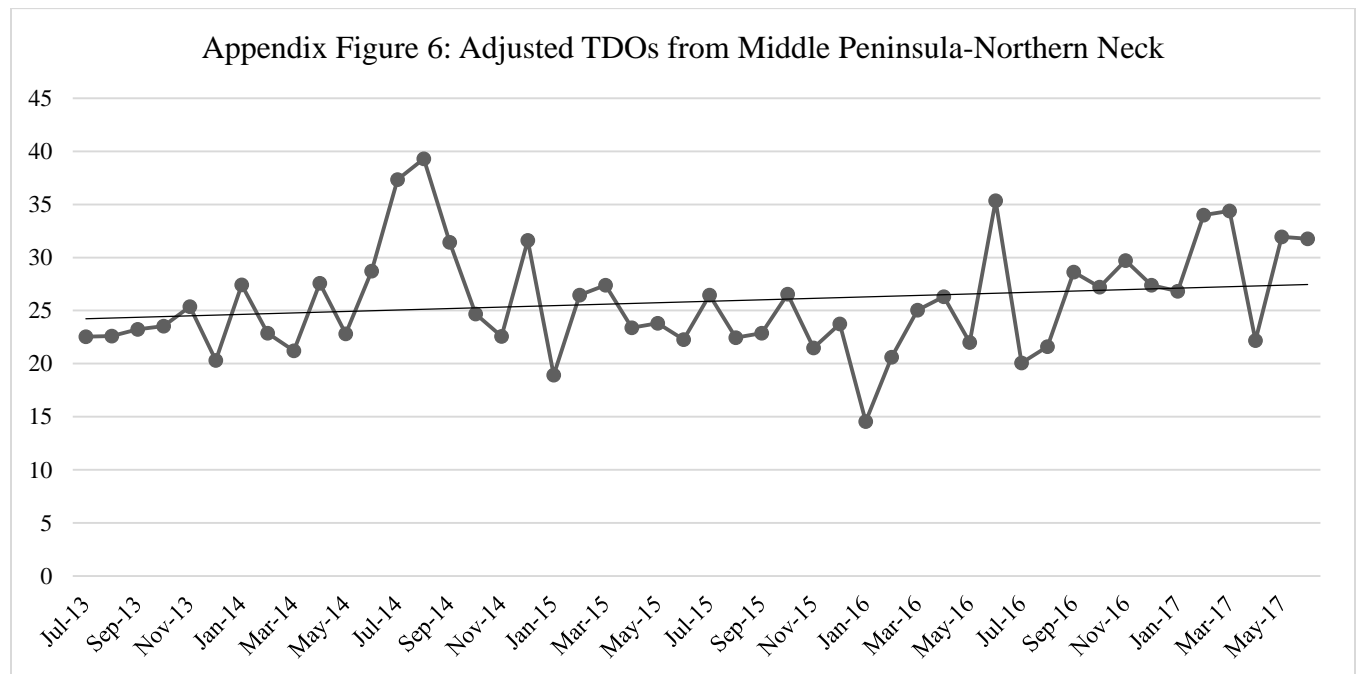


C. Middle Peninsula-Northern Neck

Appendix Figure 5 shows adult TDO admissions to state hospitals from Middle Peninsula-Northern Neck CSB. The number increased from fiscal year 2014 to 2015, and again from 2016 to 2017. The percent of TDOs that were admitted to state hospitals increased from 1% to 9%. In the Middle Peninsula-Northern Neck catchment area, there are 10 psychiatric beds in private facilities that accept TDO admissions.

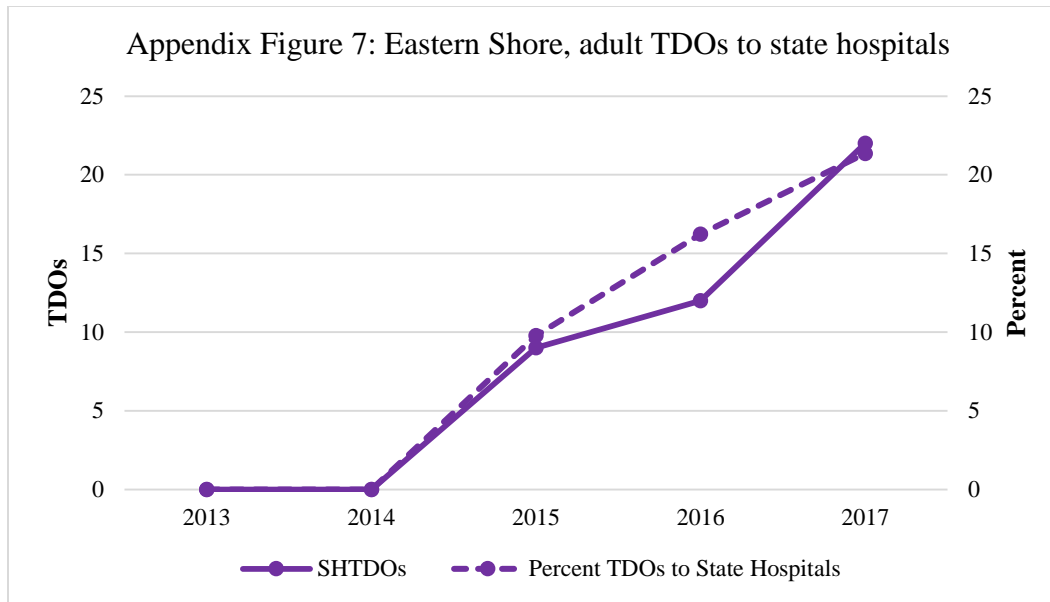


From 2013 to 2017, adult TDOs from Middle Peninsula-Northern Neck rose 23%, from 270 to 332 (Appendix Figure 6). Middle Peninsula-Northern Neck saw a gradual increase in TDOs following the Deeds incident. There was also a temporary increase following the last resort legislation. There was a decline following the implementation of the GAP program and an unexplained increase in TDOs in fiscal year 2017.

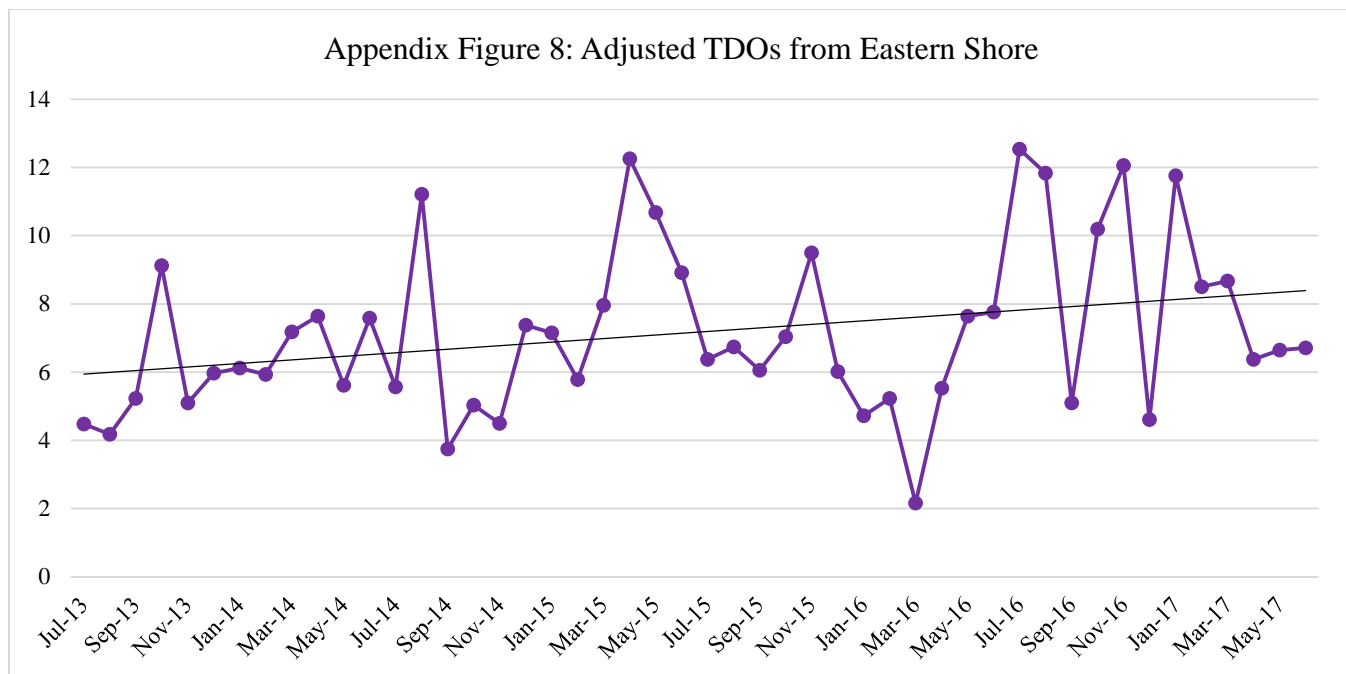


D. Eastern Shore

Appendix Figure 7 shows adult TDO admissions to state hospitals from Eastern Shore CSB. The number has increased every year for the past three years. The percent of TDOs that were admitted to state hospitals increased from 0% to 21%. In the Eastern Shore catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.

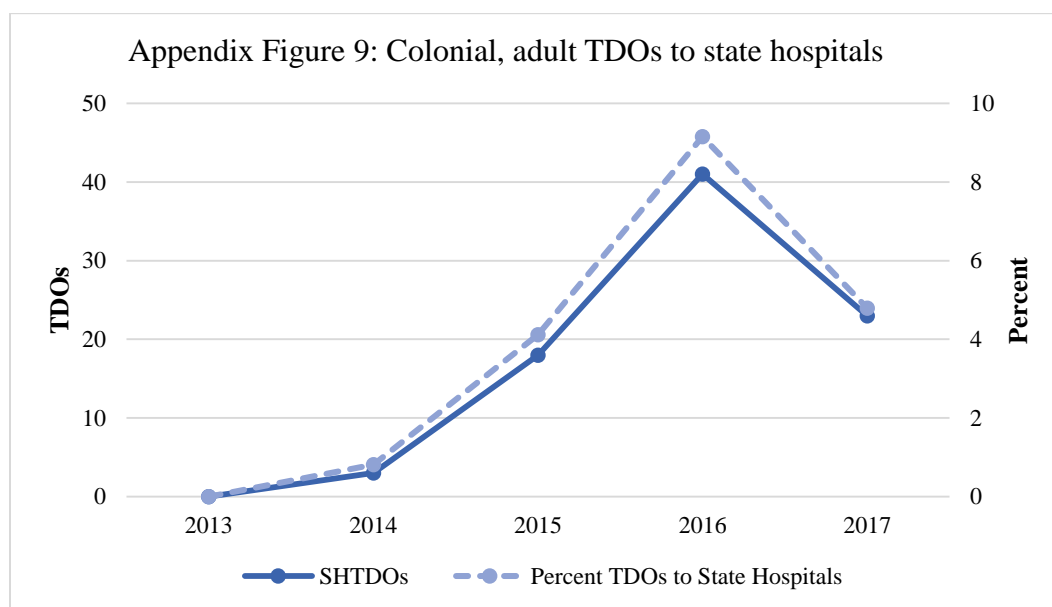


From 2013 to 2017, adult TDOs from Eastern Shore rose 58%, from 65 to 103 (Appendix Figure 8). Eastern Shore saw an increase in TDOs across fiscal year 2014. There was also a temporary decline following the last resort legislation, and a temporary increase after implementation of the GAP program. There was an unexplained increase in TDOs at the beginning of fiscal year 2017, although it resolved itself by the end of that fiscal year.

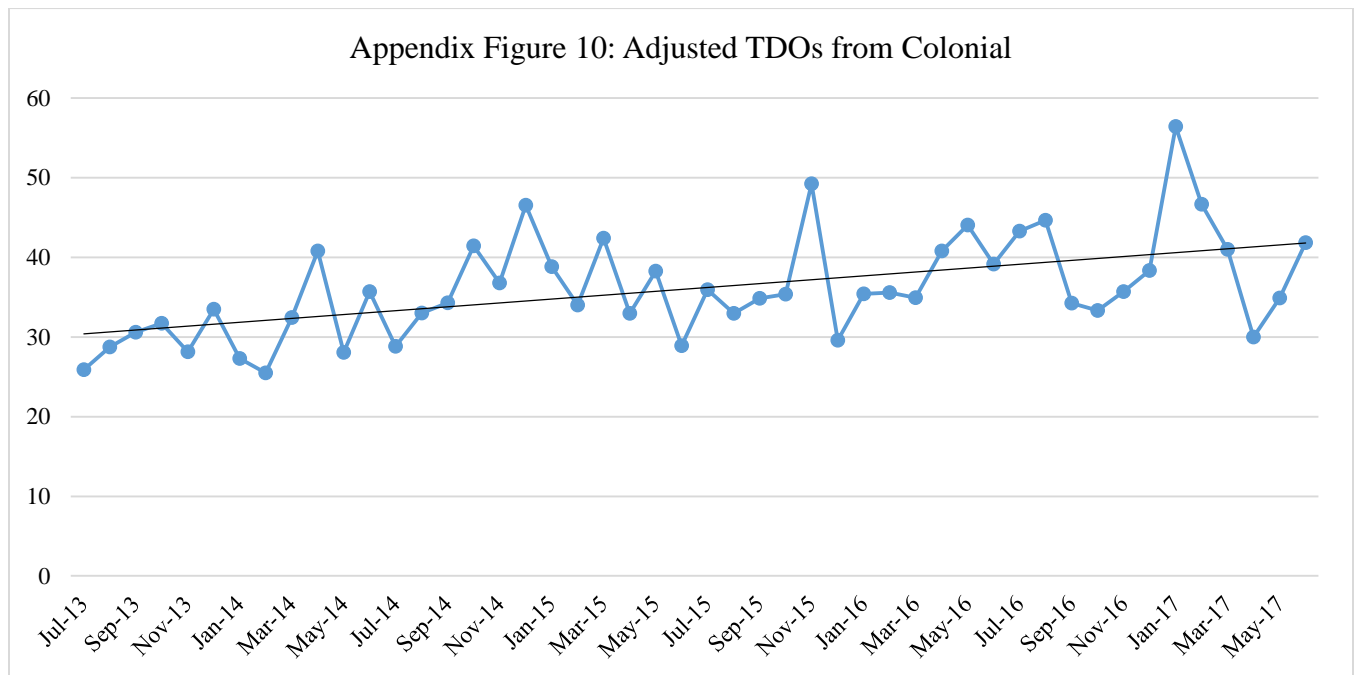


E. Colonial Behavioral Health

Appendix Figure 9 shows adult TDO admissions to state hospitals from Colonial Behavioral Health. The number increased from fiscal year 2013 to 2016, before receding sharply in 2017. The percent of TDOs that were admitted to state hospitals increased from 0% to 5%. In the Colonial catchment area, there are 57 psychiatric beds in private facilities that accept TDO admissions.



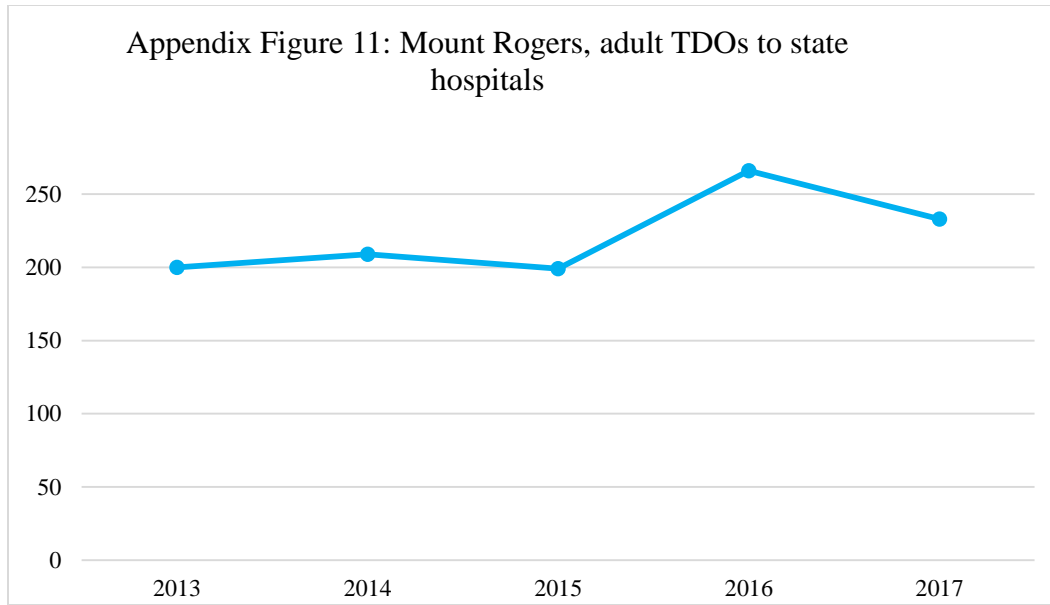
From 2013 to 2017, adult TDOs from Colonial rose 62%, from 297 to 480 (Appendix Figure 10). Colonial saw an increase in TDOs at the beginning of fiscal year 2014, and again after the Deeds incident. There was also a temporary increase in fiscal year 2015 that may have been related to the last resort legislation, or the opening of a new CITAC. There was an unexplained increase in TDOs at the beginning of fiscal year 2017, although it resolved itself by the end of that fiscal year.



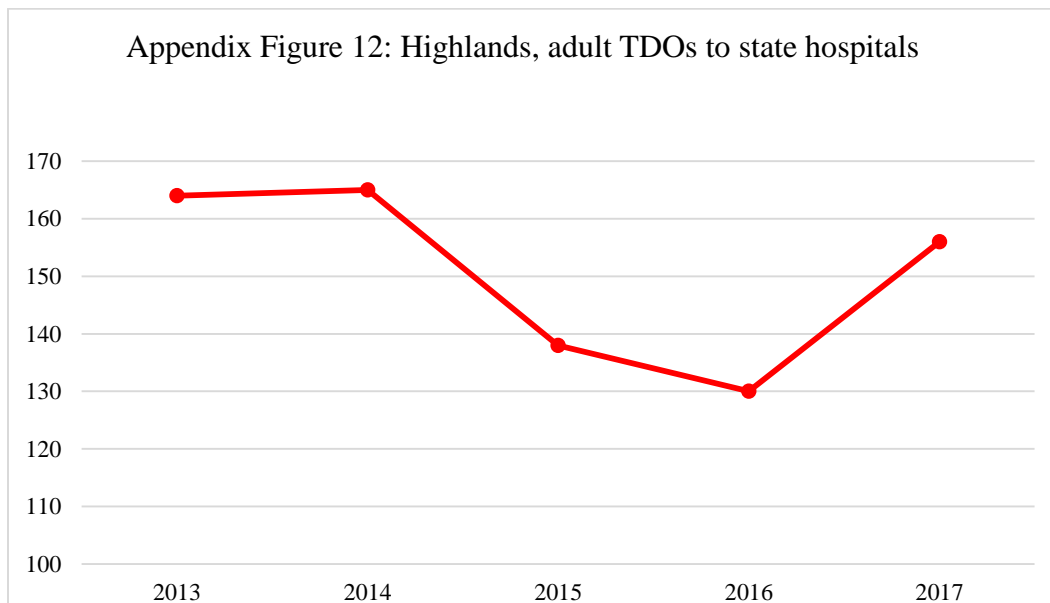
Appendix B: Trends among CSBs with Stable TDOs and State Hospital Admissions (Category 4)

There are eleven CSBs that have seen neither a substantial increase in overall TDOs nor TDOs to state hospitals.

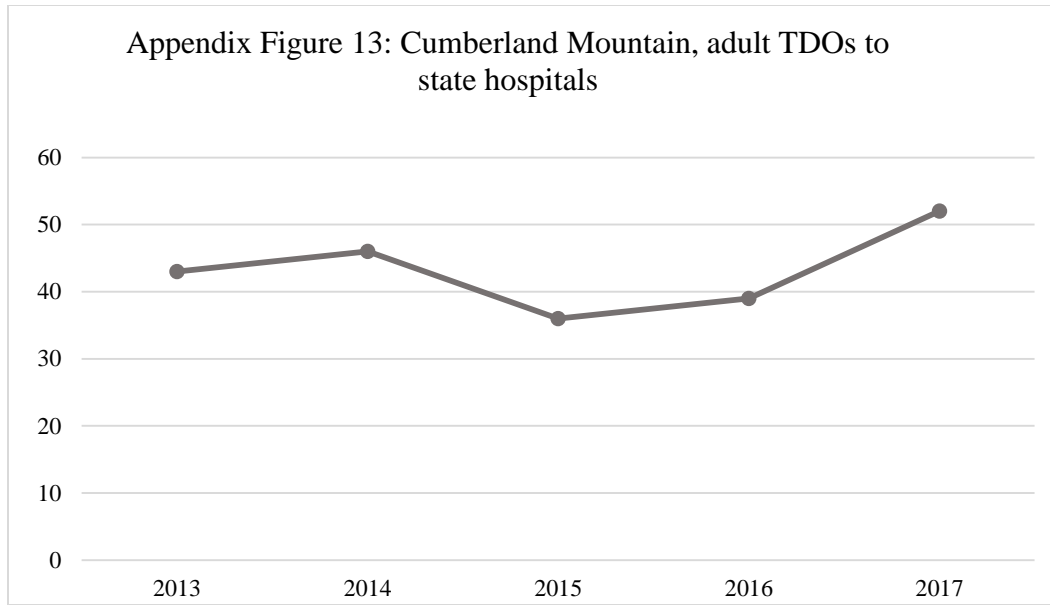
Appendix Figure 11 shows adult TDO admissions to state hospitals from Mount Rogers CSB. The number increased from 2015 to 2016, and then declined the following year. In the Mount Rogers catchment area, there are 20 psychiatric beds in private facilities that accept TDO admissions. In fiscal year 2017, state hospitals accepted 233 TDO admissions from Mount Rogers CSB, the third highest volume among all the CSBs in the state.



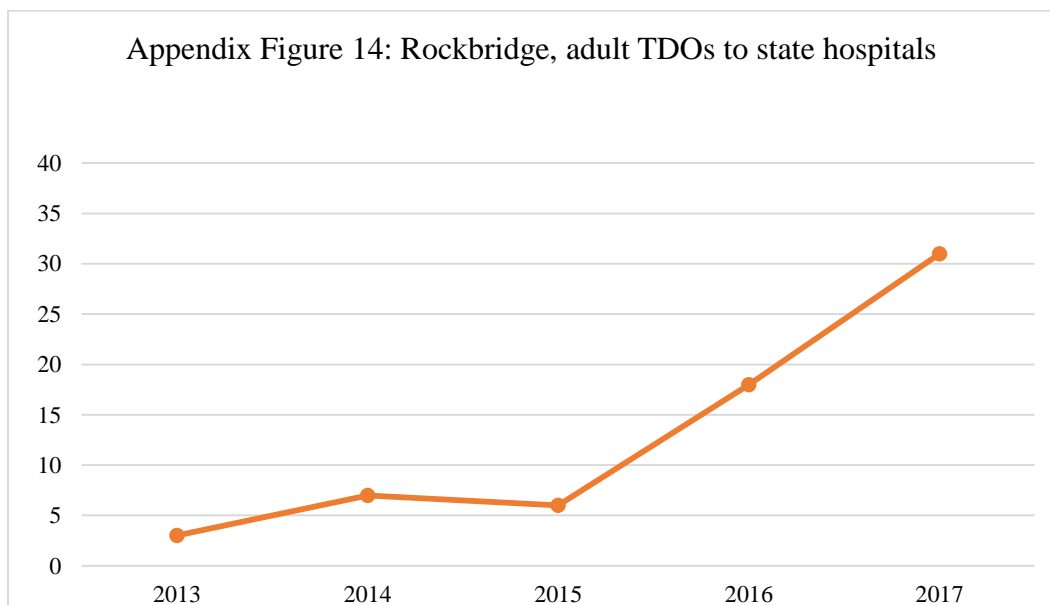
Appendix Figure 12 shows adult TDO admissions to state hospitals from Highlands CSB. The number declined from 2013 to 2016, before increasing in 2017. In the Highlands catchment area, there are 28 psychiatric beds in private facilities that accept TDO admissions. In fiscal year 2017, there were 156 TDO admissions to state hospitals that came from Highlands CSB, this number is in the top quartile for the state.



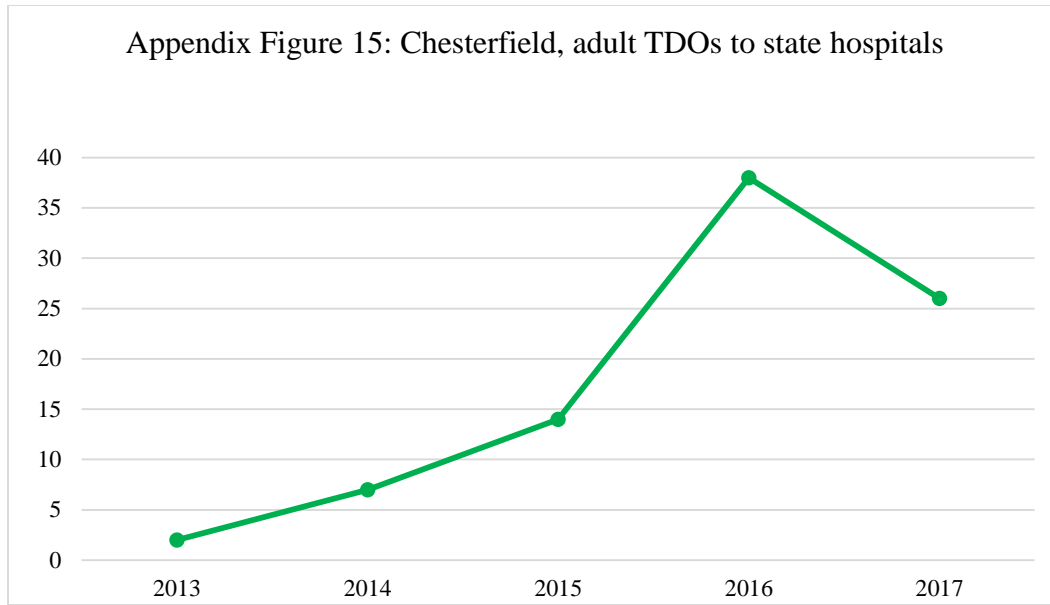
Appendix Figure 13 shows adult TDO admissions to state hospitals from Cumberland Mountain CSB. The number has increased for the past two years. In the Cumberland Mountain catchment area, there are 20 psychiatric beds in private facilities that accept TDO admissions.



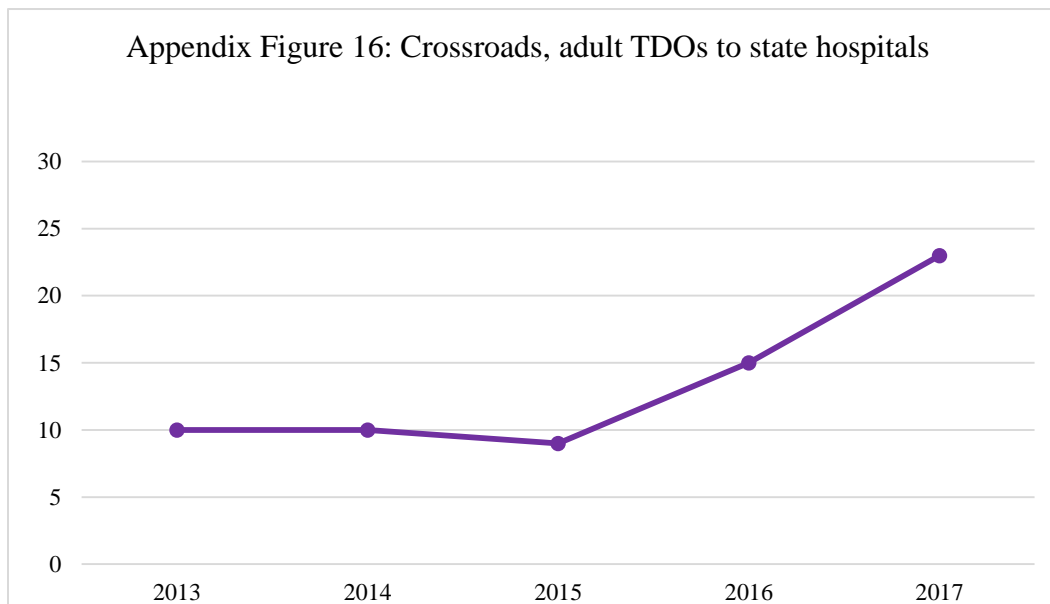
Appendix Figure 14 shows adult TDO admissions to state hospitals from Rockbridge Area CSB. The number has increased for the past two years. In the Rockbridge catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.



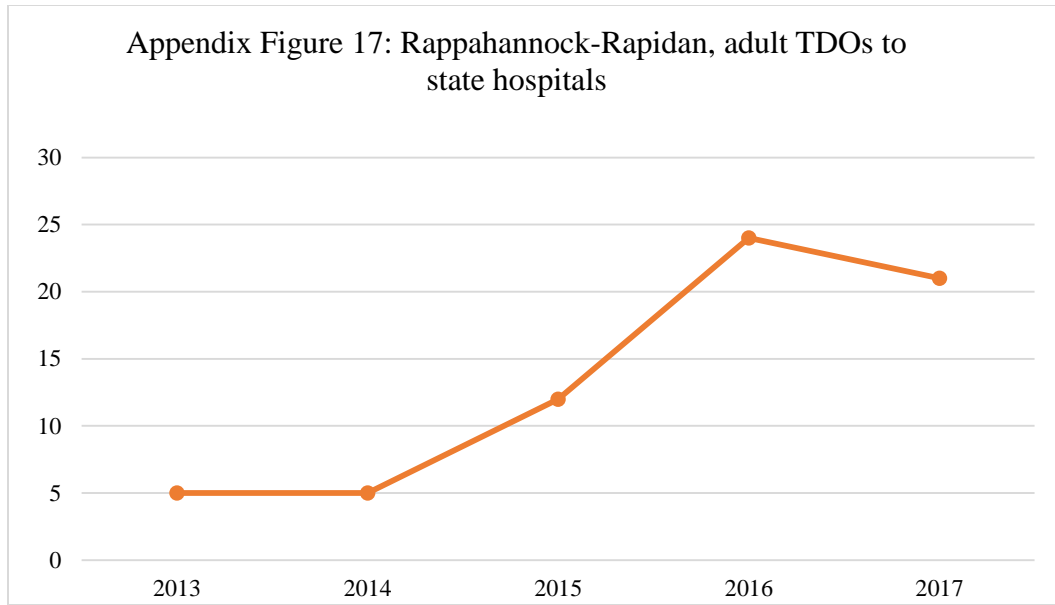
Appendix Figure 15 shows adult TDO admissions to state hospitals from Chesterfield Mental Health Support Services. The number increased each fiscal year until 2016, then declined in 2017. In the Chesterfield catchment area, there are no psychiatric beds in private facilities that accept TDO admissions, although Chesterfield does border Richmond, which has a large number of beds.



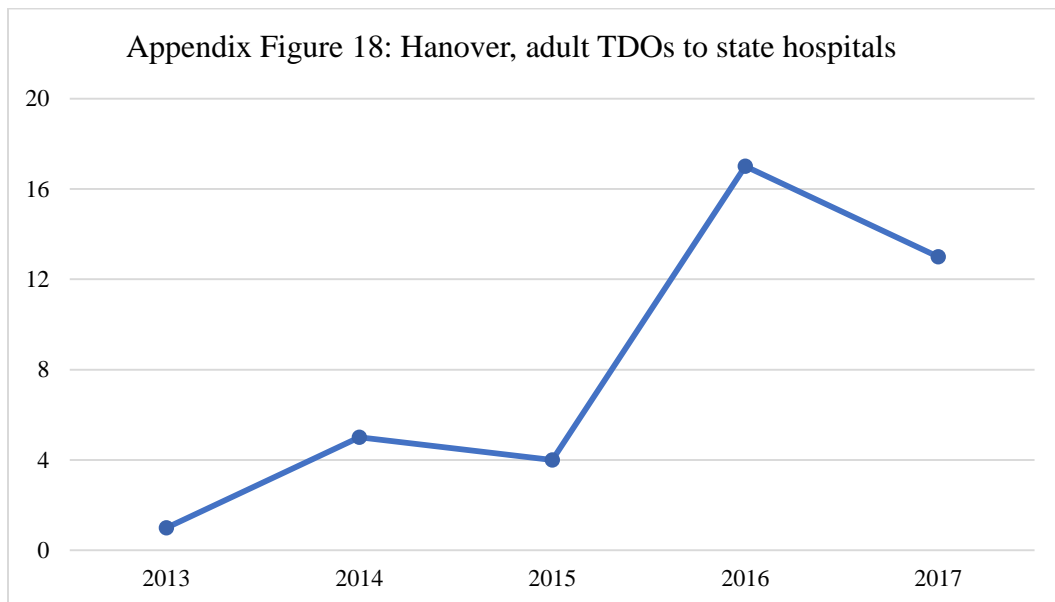
Appendix Figure 16 shows adult TDO admissions to state hospitals from Crossroads CSB. The number has increased for the past two fiscal years. In the Crossroads catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.



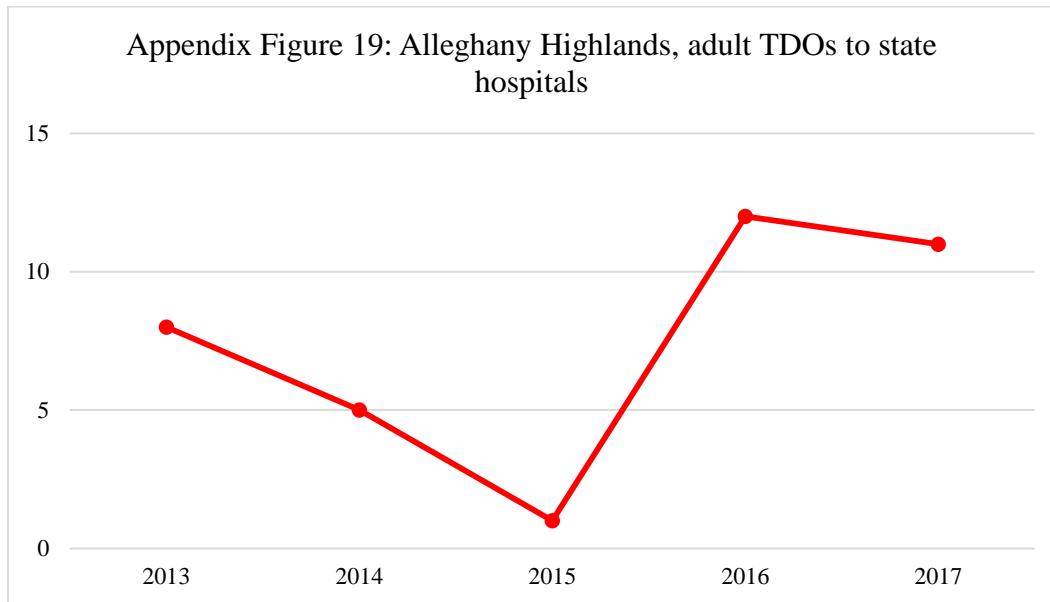
Appendix Figure 17 shows adult TDO admissions to state hospitals from Rappahannock-Rapidan CSB. The number increased from fiscal year 2014 to 2016, before declining in 2017. In the Rappahannock-Rapidan catchment area, there are 70 psychiatric beds in private facilities that accept TDO admissions.



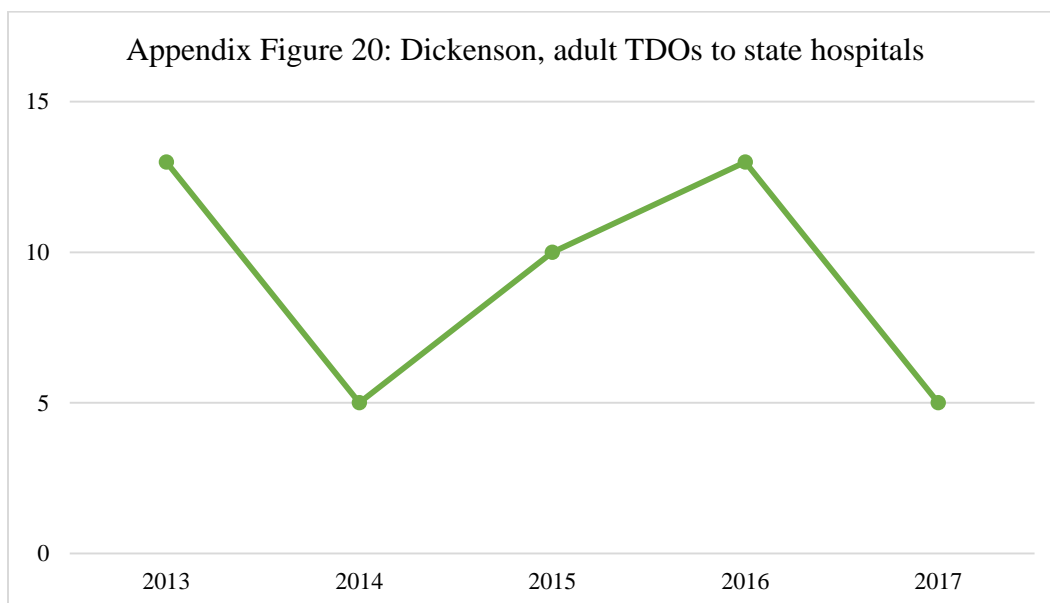
Appendix Figure 18 shows adult TDO admissions to state hospitals from Hanover Community Services. The number increased from fiscal year 2015 to 2016, but has declined since. In the Hanover area, there are no psychiatric beds in private facilities that accept TDO admissions.



Appendix Figure 19 shows adult TDO admissions to state hospitals from Alleghany Highlands CSB. The number declined from fiscal year 2013 to 2015, but increased in fiscal year 2016. In the Alleghany Highlands catchment area, there are 15 psychiatric beds in private facilities that accept TDO admissions.



Appendix Figure 20 shows adult TDO admissions to state hospitals from Dickenson County CSB. The number rose from fiscal year 2014 to 2016, before declining in fiscal year 2017. In the Dickenson County, there are 10 psychiatric beds in private facilities that accept TDO admissions.



Appendix Figure 21 shows adult TDO admissions to state hospitals from Goochland-Powhatan CSB. The number has been fairly stable for the past five fiscal years. In the Goochland-Powhatan catchment area, there are no psychiatric beds in private facilities that accept TDO admissions.

