Transitional Care Needs of Army beneficiaries using Mental Health Services

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Introduction

The composition of the Army beneficiary population changes annually due to occupation-related and operations-related personnel changes. This personnel turbulence (1) creates additional requirements for care transition management (2) as beneficiaries move from one catchment area to the next. Military treatment facilities also have to manage care transitions within their catchment area across clinical levels of care within and across the direct care and purchased care systems. There is gap in the academic literature on mental health related transitional care needs of military health system beneficiaries. This paper contributes to closing that gap by first identifying the key transitions that need to be managed, and then quantifying the known need of services between FY 2003 and FY 2014 using administrative data on delivered services. The paper also presents data on when key beneficiary groups using mental health services (3) received care after a transition. This analysis provides a first step to understand system effectiveness at managing transitions.

Transitional care requirements manifest at two levels: inter-catchment area transitions that change the composition of the beneficiary population at a military treatment facility, and intra-catchment area transitions involving changes in levels of care and locations of care within the catchment area of a military treatment facility (Figure 1). Inter-catchment area transitions include new enrollments, return

from deployments, moves, deployments and loss of coverage due to personnel attrition. Intra-catchment area transitions include inpatient admissions, inpatient release, and emergency department visits across both purchased care and direct care. While step up and step down care within specialty mental health services is of interest, the administrative data between FY 2003 and FY 2014 do not reliably support such a finer grained analysis.

New accessions to the Army are screened for gross mental health disability and functional capacity (4). Even though a detailed medical history is gathered at accession, mental health disorders continue to contribute to early discharges from service (5). Since accession screenings only occur for service members, it is important to identify the needs of dependents when they first enter the military health system. Guard/Reserve service members and their dependents often move in and out of the military health system based on whether the sponsor is on active duty status. These beneficiaries have to be treated as new enrollees to the system because of the rotational nature of their enrollment and limited access to their health records when they are not enrolled in the military health system.

Service members returning from a deployment do not change the enrollment numbers at a military treatment facility, but contribute to a near term increase in mental health service utilization (6). Relocation moves such as permanent changes of station are a known source of occupational stress in the military (7, 8). Beneficiaries who are in active care prior to relocation are a high-risk group who may need transitional care services. Similarly, beneficiaries in active care prior to losing coverage (due to changes in sponsor status such as expiration of time of

service, return to inactive status, or involuntary separation from service) are a potential high-risk group who are reintegrating into civilian life and receive services via the VA, state health system, or through private employer coverage.

Three types of intra-catchment area transitions need to be examined in greater detail: emergency department visits for mental health conditions, discharge from psychiatric inpatient stays, and ambulatory care fragmentation across direct and purchased care. The Emergency department (ED) is a critical entry point for both ambulatory mental health services (9) and psychiatric hospitalization (10). Command teams also use the ED as the initial service location for soldiers they feel are at risk for deliberate self-harm or had endorsed intent to harm others. Beneficiaries with these and other psychiatric emergencies have to be assessed for near-term risk and either be transitioned into inpatient care or if assessed to be stable, transitioned to ambulatory care services.

Beneficiaries are at elevated risk for adverse outcomes such as readmission or deliberate self-harm (11) in the time period immediately following discharge from psychiatric hospitalization. Psychiatric hospitalization has been correlated with higher service separation rates than non-psychiatric hospitalization (12, 13). In addition to the occupational impact of an inpatient stay, there are social costs (14) that may hinder reintegration into the workplace and the larger community. The increase in psychiatric hospitalizations of Army beneficiaries (3) make it important to understand care transitions when a beneficiary is discharged. Care fragmentation across direct care and purchased care systems is driven presents unique challenges because the military treatment facility has control over only the direct care system.

A first step to understanding transitions across these systems is to determine the volume of such fragmentation.

Inter-Catchment Transitions

We identified all beneficiaries whose coverage begins for the first time in a fiscal year (new enrollees), who moved to a different catchment area, whose deployment start date fell in the fiscal year of analysis (deployed), whose deployment end date fell in the fiscal year of analysis, and whose coverage ended in the fiscal year of analysis, as summarized in Table 1. The military health system has defined policy on managing the mental health needs of soldiers leaving their home station for a deployment, and their reintegration once they return (15). Pre-deployment screenings have been found to be associated with reductions in occupationally impairing mental health problems (16). The instruments used in the deployment related screenings have been found to be clinically useful (17), but their overall effectiveness is dependent on the honesty of the respondents (18) and the design of the care pathway once a soldier is identified as needing services. Our data set do not capture when screenings occur, so we focus on three of the five inter-catchment area transitions: new enrollees, beneficiaries who move, and those who lose coverage.

New Enrollees

Modern accession standards allow for people with mental illnesses, with some exceptions to serve in the Armed Forces (19). Command teams have

highlighted concerns about negative outcomes for soldiers who received medical and/or moral enlistment waivers (20). While our data set does not capture actual mental health service utilization prior to enrollment, we examined all mental health utilization of new enrollees in the first fiscal year of their enrollment where the Soldier endorsed having a prior history of using mental health services. The data show that in FY 2005 over 25% of newly enrolled active duty soldiers had a prior history of using mental health (as shown in Table 2). Since the Army revoked medical waivers for mental health conditions in the end of FY 2009 (21), the % of newly enrolled Soldiers with a personal history of using mental health has steadily declined to 10.3% of new enrollees in FY 2014. The number of new enrollees was highest in FY 2003, with guard/reserve soldiers and their dependents accounting for almost 70% of all new enrollees. As the wars have winded down, the number of new enrollees has declined. Even so, almost 8% of new enrollees in FY 2014 indicated a prior history of mental health services use and may require mental health services in the military health system.

Moves

Moves such as permanent changes of station are a known occupational stressor in military life (22). In FY 2010 the Army had refined policy guidance to ensure warm "hand offs" for soldiers moved from one installation to another (23, 24). The policy required the losing military treatment facility to review the records of all soldiers seen in a behavioral health clinic within 60 days of their move date, and when clinically warranted, schedule a follow on appointment with the gaining

behavioral health clinic. Field research showed that the handoff processes were executed differently in each of the installations visited. Providers noted that the fluidity of the unit assignment process, and medical personnel turnover at the gaining installation made it difficult to do a warm handoff. We examined all ambulatory care mental health services provided 120 days prior to the move date as well as all inpatient admissions 120 days prior to the move date to determine if beneficiaries received any services. Beneficiaries who received two or more ambulatory mental health encounters were deemed as seeking services, and those with 4 or more visits or an inpatient admission for mental health were classified as being engaged in care. The 120-day window was selected to allow for leave and actual moving time prior to enrollment at the new installation.

The data show that the number of beneficiaries who move, and used behavioral health services 120 day prior to their move date, has significantly increased from FY 2003 to FY 2014 across all key beneficiary groups (Table 3). The % of movers engaged in care prior to the move has also increased from 2% of the active duty soldiers in FY 2003 to over 5% in FY 2014. Active duty dependents in active care prior to a move grew from 1.8% in FY 2003 to 3.6% in FY 2004. We examined whether these beneficiaries who received services or were engaged in care received prior to their move received follow up services in either an inpatient or ambulatory setting 120 days after their move date (Table 4). The data show that almost 50% of those engaged in care prior to the move do not receive follow on services in the new installation. While some of those beneficiaries may have completed a course of treatment and may choose to not reengage in services, the

system of care has to ensure that follow up services are offered if deemed to be clinically necessary.

Lose Coverage

Beneficiaries could potentially lose their military health system coverage benefits when the sponsor leaves service or returns to inactive status. While there have been examples of warm handoffs to other health systems such as the VA (25), there has been no quantification of the known demand for services. We examined all ambulatory mental health encounters and inpatient admissions for MDC 19 or 20 within 180 days of the beneficiary losing their healthcare coverage. We chose 180 days to account for terminal leaves where a beneficiary may not access services. We adopted the same heuristic of two or more ambulatory mental health encounters or an inpatient admission to denote use of behavioral health services, and 4 or more encounters to indicate engagement in care.

The data (Table 5) show that Guard/Reserve soldiers and their dependents are the largest beneficiary groups losing coverage. Active duty soldiers are both the largest users of behavioral health services, as well as the group with the most beneficiaries engaged in care 180 days prior to losing coverage. The % of active soldiers losing coverage who are engaged in care prior to losing coverage has been relatively stable since FY 2011 (Table 6), and the fraction of these Soldier losing coverage is similar to the 15% of all active duty Soldier who use behavioral health services. These data provide a quantification of the known illness burden being transferred from the Army that may need to be absorbed by other health systems.

Inter-Catchment Transitions

Transitional care needs also emerge when beneficiaries traverse levels of care or system of care within a catchment area. We focus on three such transitions: release from inpatient care, psychiatric emergency department visits, and fragmented ambulatory care services across direct care and purchased care. Step up and step down care through partial hospitalization and intensive outpatient programs are of interest, but our data did not provide reliable granularity into the various types of ambulatory care services.

Psychiatric Discharges

The number of inpatient admissions for mental health and substance use conditions has been steadily growing from FY 2003 to FY 2014, as seen in Table 7. Active duty soldiers are the largest users of both direct care inpatient services, while active duty dependents are the largest users of purchased care inpatient services. Follow up after an inpatient psychiatric hospitalization is recommended to prevent adverse outcomes such as deliberate self-harm and readmission. We identified all inpatient admissions for mental health or substance use conditions, and used the release date from psychiatric hospitalization as the index date to determine when follow up services were provided in an outpatient setting with a privileged mental health provider. We also examined whether the beneficiary was hospitalized within 30 days of release for any mental health or substance use condition.

Shorter follow up appointments are strong predictors of attendance for initial post discharge appointment (26, 27). The data on ambulatory care follow up after psychiatric discharge (Table 8 and Table 9) show that follow up within 7 days and 30 days have been historically poor for all beneficiary groups across both purchased care and direct care. There is significant improvement in follow up for soldiers (active duty and guard/reserve) in FY 2014, across both direct care and purchased care. If the analysis constraints are relaxed to include any follow up in a behavioral health clinic, the 30-day follow up rate for active duty Soldiers in FY 2010 was 94.6%, and improved to 96.6% in FY 2014. This difference in findings highlights the importance of data quality in computing any metric. The data on type of provider vary significantly in quality, especially with licensed clinical social workers being classified as case mangers, hence an encounter with an improperly classified provider does not count as an encounter with a privileged mental health provider. The data also highlight the lack of follow up care for other beneficiary groups like dependents and retirees following purchased care psychiatric discharge.

When we examined readmissions within 30 days of psychiatric discharge in both direct care and purchased care. A recent review of readmissions within 30 days in the United States found a rate of 15% for mood disorders, 22.4% for schizophrenia and 15.4% for all other disorders (28). Analysis of a 7,891 discharge sample from South London revealed a 90 day readmission rate of 15% (29). Our data show a similar readmission within 30 days rates in the direct care system, but nearly double the rate in the purchased care system (Table 10). In FY 2014, active duty soldiers in purchased care were twice as likely to get readmitted within 30

days as active duty soldiers in direct care (Odds ratio 2.15, 95% CI 1.95 – 2.36). Family members released from purchased inpatient care were almost five times as likely to get readmitted within 30 days than in direct care (Odds ratio 4.65, 95% CI 3.41 – 6.34).

The literature is inconclusive on the ideal system of care design to provide continuity across inpatient and outpatient settings (30). Case management and other care transition interventions have been shown to reduce psychiatric readmission in some cases (31-33), but follow up has also been shown to be not protective of early readmission (34). One study found that follow-up within seven days of psychiatric discharge to be associated with greater medication adherence and outpatient utilization than having no follow up (35). Our data suggest that even with better follow up for soldiers, the readmission rates remained high in purchased care. This raises concerns on whether purchased inpatient care becomes "bus therapy" (36), and inspecting quality of care at these facilities is challenging because they are only required to share a one-page summary at time of discharge.

Emergency Department Visits

Emergency department utilization for mental health reasons grew from 14,724 visits in FY 2003 (2.4% of all ED visits) to 31,664 visits in FY 2014 (3.4% of all ED visits), peaking in FY 2012 to 40,116 visits (3.7% of all ED visits), as shown in Table 11. Active duty soldiers and their dependents were the largest users of the ED for psychiatric emergencies, with active duty soldier ED use growing from 3% of all ED visits to 6.2% of all ED visits. In FY 2014, retirees and their dependents emerged

as the second largest user of the ED for psychiatric emergencies. These ED use rates are lower than the civilian rate which grew from 4.9% of all ED visits in 1992 to 12.5% of all ED visits in 2007 (37, 38). ED use for mental health conditions are predicted by absence of insurance (39), homelessness (40) and a lack of outpatient follow up (41). The first two do not typically apply to the military beneficiary population, so we examine post-ED visit follow up in greater detail.

ED visits leading to psychiatric hospitalization have been steadily increasing in the direct care system from 16.9% of ED visits in FY 2003 to 26.95% of ED visits in FY 2014. In the purchased care system, hospitalizations have declined from 25.2% of all visits in FY 2003 to 19.7% of all ED visits in FY 2014. These admission rates are lower than data reported in older studies (42, 43), highlighting the need for more study on the factors leading to hospitalization. For beneficiaries who are not hospitalized, there is a small window of opportunity to engage them in services (44). A national survey of emergency departments found that emergency physicians had no systematic method for identifying psychiatric emergency patients with high recidivism (45). Our data provide limited evidence that a privileged mental health provider actually assessed these beneficiaries when they presented in the ED.

The data (Table 12) shows that the odds of no follow up within 30 days of an ED visit for patients who were not hospitalized is worse in purchased care than direct care (Odds ratio 1.89, 95% CI 1.77 to 2.01). The 20% of ED visits with no ambulatory care follow up in the direct care system is similar to the purchased care fraction of 19% of all ED visits. These beneficiaries who do not receive any

ambulatory mental health services following their ED visit are a potential high risk population who need to be actively managed.

Fragmented Ambulatory Care

Capacity limitations in military treatment facilities have accelerated the use of the purchased care network for all beneficiary groups. In our field research, we have captured anecdotal evidence of military treatment facilities make a strategic choice of keeping pharmacotherapy within the direct care system, and sourcing psychotherapy in the purchased care system. This choice is intended to establish a single prescriber for the beneficiary and prevent adverse outcomes due to poly-pharmacy. We examined all ambulatory care services in both direct care and purchased care to determine the scope of care fragmentation. We defined care as being fragmented if a beneficiary received two or more encounters in a direct care setting and a purchased care setting (total of four or more encounters in a given fiscal year).

The data show that active duty dependents have the largest number of unique users with fragmented care, followed by active duty soldiers and retirees and their dependents (Table 13). As a % of the population receiving mental health services, the care fragmentation of active duty dependents and guard/reserve dependents has remained relatively stable from FY 2003 to FY 2014 (Table 14). The fragmentation of retirees and their dependents has also declined as most care for these beneficiaries is provided in the purchased care setting. The fragmentation for active duty soldiers increased from 3.16% of users receiving services in FY 2003, to

7.76% in FY 2014, peaking at 9.7% in FY 2012. This pattern is similar for activated guard/reserve soldiers. This reduction in care fragmentation can be attributed in part to the increased care capacity and care management strategies in the direct care system.

Conclusions

The military health system has to manage both operational and occupational inter-catchment area transitions and clinical intra-catchment area transitions. The military health system has focused intensely on these operational transitions, and while questions still remain on how best to mange these transitions, the Army has developed local solutions that need to be evaluated and standardized. The data show that number of beneficiaries entering the military health system with prior history of mental health conditions has dropped from the highs in FY 2005 and FY 2007 of over 9.5% of all new enrollees to slightly over 8%. The dominant driver of the increase was relaxed accession standards for active duty soldiers, which have since been tightened.

The planned movement of personnel of occupational reasons translates into almost 20% of Army beneficiaries changing their healthcare enrollment location. The data show that known population of beneficiaries engaged in active care prior to a move has been increasing from FY 2003 to FY 2014. The number of unique active duty soldiers and dependents in active care has almost tripled in that timeframe, and almost half of these beneficiaries do not receive any follow-on services. Army has instituted an automated process for identifying beneficiaries

who need follow on services after a move, and more research is needed to determine whether the new process results in better reengagement in care after a move. The research identified the number of beneficiaries who were in active care prior to losing coverage. These beneficiaries potentially need follow on services in other healthcare systems such as the VA or state mental health systems.

Discharge planning from an inpatient unit is challenging (46), even more so in the case of soldiers where occupational limitations have to be shared with command teams. Since psychiatric readmission is more influenced by residential and employment status than the condition itself (47), and patients may have residual symptoms after discharge that interfere with their functioning (48), making community support system engagement essential for recovery. The utility of psychiatric readmission an indicator of poor inpatient care quality can be debated (49, 50), however, as a metric it exposes potential fragility (51) in the mental health system as a whole. The data show clear distinctions between follow up and readmissions in direct care and purchased care. The Army has developed a new approach to managing the inpatient to outpatient transition through a care management function called *Connect Care* that attempts to ensure culturally competent care during psychiatric hospitalization and engagement of the community support system on discharge. More research is needed into the efficacy of this strategy, and its impact on beneficiary outcomes.

The drivers of emergency department use for psychiatric emergencies in the civilian sector are socio-economic factors such as homelessness, lack of insurance and a lack of community support system. These factors should not be applicable to

the Army beneficiary population. Even though the ED utilization rate is lower for Army beneficiaries, the root causes underlying this use need to be investigated further. Soldiers who use purchased care ED services and were not admitted are almost four times more likely to not receive any follow on services than soldiers who used the direct care ED (Odds ratio 3.94, 95% CI 3.5 to 4.42). The lack of any follow up care after an ED visit for almost 20% of non-admitted beneficiaries is a potential risk area that needs to be examined in greater detail. The data show that a number of beneficiaries presenting in the ED for a mental health condition are not seen by a privileged mental health provider. This raises additional concerns about the safety of these beneficiaries who are judged to be stable and released from the emergency department.

This paper contributes to filling a critical gap in the literature on the transitional care needs of Army beneficiaries using mental health services. We specify five key inter-catchment area transitions and three key intra-catchment area transitions that may generate transitional care requirements. We use administrative data to quantify the potential demand need for transitional care services, and identify safety risks associated with not managing those transitions.

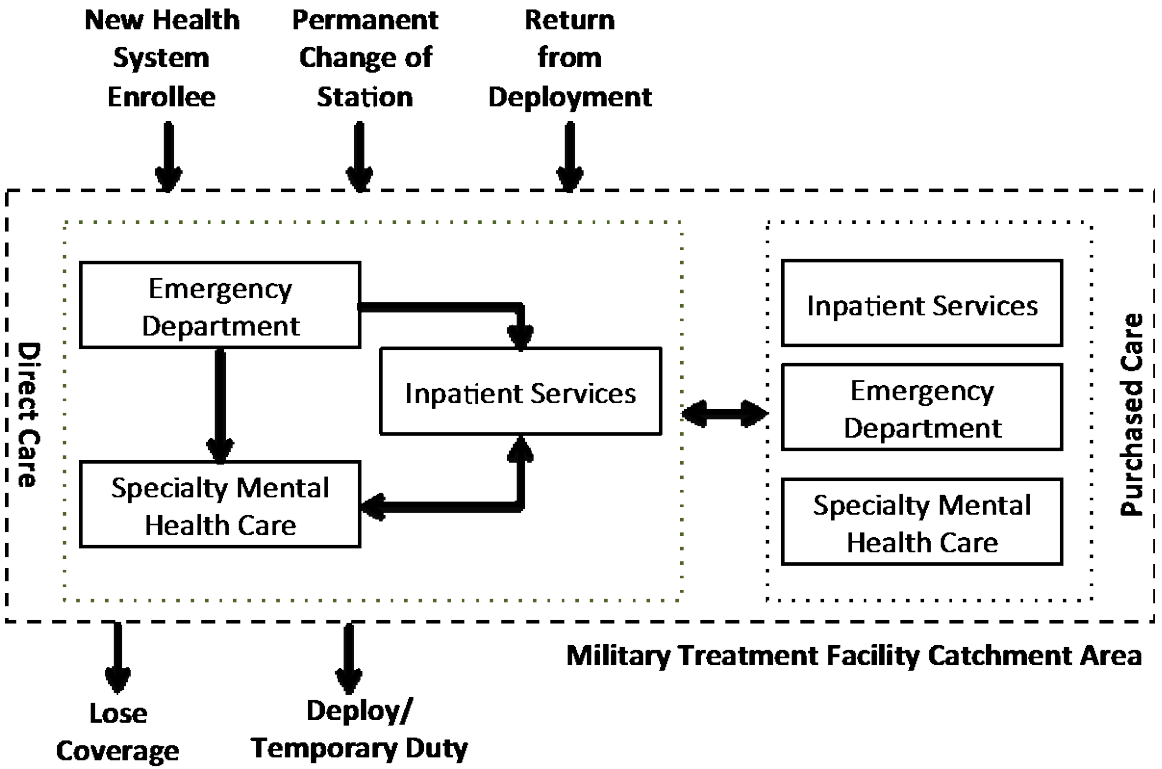

Figure 1 Mapping Inter-System and Intra-System Care Transitions

Table 1 Understanding Inter-System Transitions for Occupational and Operational Reasons

Fiscal Year	New Enrollees	Moved	Deployed	Return from Deployment	Lose Coverage
2003	601,266	257,612	236,919	90,454	185,277
2004	513,352	273,730	181,232	202,417	339,927
2005	462,798	332,151	186,238	137,025	277,215
2006	443,391	345,888	172,886	159,520	309,624
2007	438,650	369,826	169,388	129,294	219,321
2008	498,978	417,446	173,777	168,473	227,453
2009	519,606	416,440	209,369	184,994	228,081
2010	478,973	412,469	194,785	206,403	272,718
2011	428,410	438,509	175,498	162,845	242,133
2012	372,401	457,401	119,994	161,053	237,029
2013	372,178	518,264	117,403	114,882	227,998
2014	334,559	469,760	74,830	86,926	201,448

Table 2 New Enrollees with a Prior History of Mental Health

	ANE-MH		ACT-NE	ACT–NE MH		DA-NE	DA-NE MH		GRD-NE	GRD-NE MH		DGR-NE	DGR-NE MH	
2003	47194	7.85%	77206	15731	20.38%	102037	12876	12.62%	184382	15205	8.25%	231526	2629	1.14%
2004	38386	7.48%	77909	16866	21.65%	98719	10133	10.26%	141412	8945	6.33%	185228	1866	1.01%
2005	44428	9.60%	71691	19300	26.92%	107366	10900	10.15%	118046	11434	9.69%	146270	1621	1.11%
2006	32415	7.31%	78979	14341	18.16%	116224	10709	9.21%	106778	5304	4.97%	119593	1121	0.94%
2007	42273	9.64%	75322	17179	22.81%	125790	12028	9.56%	101669	10282	10.11%	108524	1268	1.17%
2008	47413	9.50%	78181	16058	20.54%	127746	11988	9.38%	119855	14964	12.49%	128051	1565	1.22%
2009	46679	8.98%	73347	14918	20.34%	130512	12137	9.30%	130431	14785	11.34%	131593	1690	1.28%
2010	40270	8.41%	78839	12685	16.09%	132016	13898	10.53%	104156	9569	9.19%	105420	1382	1.31%
2011	38825	9.06%	68092	11547	16.96%	120460	12553	10.42%	100865	10896	10.80%	82824	1116	1.35%
2012	35104	9.43%	59011	7329	12.42%	107225	11654	10.87%	89877	12456	13.86%	67292	1004	1.49%
2013	32562	8.75%	70201	8540	12.17%	102946	10955	10.64%	87893	9469	10.77%	60978	992	1.63%
2014	26968	8.06%	58097	5982	10.30%	96095	8820	9.18%	79911	8460	10.59%	52364	838	1.60%

ANE: All New Enrollees; ACT-NE: Active Duty New Enrollees, DA-NE: Dependent of Active Duty New Enrollees; GRD-NE: Guard/Reserve New Enrollees; DGR-NE: Dependent of Guard/Reserve New Enrollees; MH- Has a Prior History of MH

Table 3 MH Utilization by Beneficiaries120 Days Prior to Changing Care Location

FY	ACT			DA			GRD			DGR		
	Moved	Used BH	In Care	Moved	Used BH	In Care	Moved	Used BH	In Care	Moved	Used BH	In Care
2003	170193	9253	3471	154231	6379	2744	27682	784	341	16988	396	161
2004	103660	5464	2362	179635	9128	3952	17893	669	310	23108	751	349
2005	148500	9131	3701	186165	8943	3947	27916	1217	531	23385	785	352
2006	146010	8665	4001	183809	8512	3877	31757	1254	639	23512	849	426
2007	143465	9793	4667	192686	9519	4339	53011	2301	1133	22245	802	406
2008	158781	11585	5482	219053	10749	4952	53586	2258	1149	26946	1085	522
2009	166688	12776	6332	225491	11393	5273	25977	1736	889	22652	905	467
2010	160637	14484	7159	224529	12215	5847	28424	1975	997	24458	1085	541
2011	185012	19656	8619	240889	14160	6913	20336	1510	803	23903	1186	580
2012	158589	17988	8276	255248	15962	8183	26876	2330	1402	33144	1607	850
2013	180989	20634	10724	284321	18916	9894	16572	1707	1004	21613	1215	666
2014	165644	17788	9124	245472	16573	8933	28431	2460	1523	21593	1175	648

ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents

Used BH: 2 ambulatory mental health encounters or an inpatient admission for MDC 19/20 120 days prior to move

In Care: 4 ambulatory mental health encounters or an inpatient admission for MDC 19/20 120 days prior to move

Table 4 % Beneficiaries Using Mental Health 120 Days Prior to Moving and Receiving Follow Up within 120 days

FY	% In Active Care Followed Up					% Using Mental Health Services and Receiving Follow Up				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	53.96%	57.51%	52.49%	62.11%	83.33%	38.51%	48.94%	39.92%	55.05%	60.00%
2004	54.83%	56.33%	47.42%	61.03%	63.64%	42.81%	47.13%	34.98%	52.33%	53.85%
2005	58.09%	57.41%	54.80%	62.50%	64.91%	42.16%	48.97%	38.54%	55.80%	54.15%
2006	62.76%	57.18%	55.87%	65.73%	64.81%	49.60%	51.32%	43.70%	58.19%	58.15%
2007	63.51%	57.76%	61.87%	57.14%	66.67%	51.81%	51.58%	47.24%	53.62%	54.36%
2008	64.65%	58.10%	62.58%	60.34%	64.36%	52.65%	51.59%	50.13%	53.55%	52.91%
2009	63.16%	58.64%	58.38%	63.17%	57.43%	51.59%	52.27%	45.68%	54.25%	51.18%
2010	65.74%	59.04%	60.18%	63.59%	59.08%	52.29%	53.79%	46.89%	57.51%	56.12%
2011	65.74%	58.51%	61.02%	65.34%	64.02%	49.84%	53.11%	48.61%	57.17%	56.63%
2012	59.29%	59.21%	65.76%	64.12%	66.38%	46.29%	54.09%	54.68%	56.25%	56.80%
2013	58.12%	64.60%	60.26%	63.81%	71.04%	48.12%	58.96%	49.68%	55.14%	65.30%
2014	51.52%	56.88%	62.77%	59.88%	57.93%	42.47%	50.78%	52.93%	51.74%	51.95%

ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents

Used BH: 2 ambulatory mental health encounters or an inpatient admission for MDC 19/20 120 days prior to move

In Care: 4 ambulatory mental health encounters or an inpatient admission for MDC 19/20 120 days prior to move

Followed Up: Used ambulatory mental health services or admitted for MDC 19/20 120 days after move

Table 5 MH Utilization by Beneficiaries180 Days Prior to Losing Coverage

FY	ACT			DA			GRD			DGR		
	Total	Used BH	In Care	Total	Used BH	In Care	Total	Used BH	In Care	Total	Used BH	In Care
2003	27261	2922	1908	34816	1189	565	60470	1513	664	57992	752	328
2004	34058	2286	1257	43729	1519	720	113505	2484	1123	138893	2669	1333
2005	29529	2688	1543	38041	1580	774	84360	2090	830	101385	2655	1390
2006	26277	2529	1475	33891	1368	694	98111	1679	828	120770	2576	1341
2007	23387	2246	1290	30086	1187	611	67450	1728	865	72352	1869	927
2008	20321	2630	1558	27624	1154	584	73774	1726	958	79377	1922	998
2009	21218	3100	1670	27787	1264	687	72854	1857	927	69864	1728	918
2010	23031	3641	2102	29562	1494	790	89368	2012	969	88936	2737	1414
2011	23798	4253	2480	32818	1802	959	69619	2322	1065	66512	2104	1098
2012	25235	4348	2528	38242	2054	1118	65268	1817	1009	63513	2231	1180
2013	33296	5538	3417	50124	2804	1533	52475	1439	718	45860	1485	784
2014	28920	4405	2845	43295	2599	1429	49190	1212	600	37778	1175	622

ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents;
Used BH: 2 ambulatory mental health encounters or an inpatient admission for MDC 19/20 120 days prior to move
In Care: 4 ambulatory mental health encounters or an inpatient admission for MDC 19/20 120 days prior to move

Table 6 % Beneficiaries Using Mental Health180 Days Prior to Losing Coverage

FY	In Active Care					Used Mental Health Services				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	7.00%	1.62%	1.10%	0.57%	1.07%	10.72%	3.42%	2.50%	1.30%	2.14%
2004	3.69%	1.65%	0.99%	0.96%	1.06%	6.71%	3.47%	2.19%	1.92%	2.51%
2005	5.23%	2.03%	0.98%	1.37%	1.04%	9.10%	4.15%	2.48%	2.62%	2.36%
2006	5.61%	2.05%	0.84%	1.11%	1.27%	9.62%	4.04%	1.71%	2.13%	2.65%
2007	5.52%	2.03%	1.28%	1.28%	1.66%	9.60%	3.95%	2.56%	2.58%	2.96%
2008	7.67%	2.11%	1.30%	1.26%	1.26%	12.94%	4.18%	2.34%	2.42%	2.49%
2009	7.87%	2.47%	1.27%	1.31%	1.17%	14.61%	4.55%	2.55%	2.47%	2.74%
2010	9.13%	2.67%	1.08%	1.59%	1.47%	15.81%	5.05%	2.25%	3.08%	3.20%
2011	10.42%	2.92%	1.53%	1.65%	1.43%	17.87%	5.49%	3.34%	3.16%	3.14%
2012	10.02%	2.92%	1.55%	1.86%	1.55%	17.23%	5.37%	2.78%	3.51%	3.42%
2013	10.26%	3.06%	1.37%	1.71%	1.79%	16.63%	5.59%	2.74%	3.24%	3.51%
2014	9.84%	3.30%	1.22%	1.65%	2.04%	15.23%	6.00%	2.46%	3.11%	3.81%

ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents

Active Care: 4 or more outpatient visits, or an inpatient admission for MDC 19/20

Table 7 Inpatient Admissions across Direct Care and Purchased Care

FY	Direct Care					Purchased Care				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	3464	586	664	41	7	1429	4337	429	1082	86
2004	3482	610	841	33	28	1577	4544	595	1611	203
2005	3580	497	792	48	36	2249	4387	709	1746	339
2006	3783	474	643	45	39	2543	4147	749	1513	557
2007	4297	535	660	29	58	3760	4572	856	1372	686
2008	4721	448	747	31	53	4816	5187	980	1494	884
2009	5034	373	733	23	58	6220	5767	1094	1615	1122
2010	4254	471	657	19	90	6784	6415	1180	1755	1562
2011	4893	467	576	17	111	7621	7061	1162	1558	2090
2012	4863	570	520	19	120	8381	8261	1292	1656	2585
2013	4626	548	520	14	137	6863	8200	1080	1630	3279
2014	4823	535	460	20	203	5704	7917	877	1453	4416
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents										

Table 8 Ambulatory Care Follow-up with a privileged mental health provider within 7 Days of Inpatient Release

FY	Direct Care % Seen in 7 Days					Purchased Care % Seen in 7 Days				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	28.00%	9.61%	12.12%	4.61%	23.04%	30.58%	8.54%	3.62%	5.76%	17.02%
2004	27.74%	10.91%	12.95%	7.05%	32.82%	26.06%	10.78%	4.25%	6.32%	18.32%
2005	33.27%	9.86%	12.27%	6.24%	32.45%	30.50%	11.07%	4.22%	5.90%	16.36%
2006	32.65%	9.15%	13.50%	4.64%	37.64%	29.06%	11.40%	4.90%	6.15%	17.09%
2007	34.16%	10.38%	12.15%	6.36%	36.21%	28.64%	11.30%	4.81%	6.82%	20.56%
2008	30.46%	8.37%	17.41%	7.59%	36.14%	26.93%	9.26%	4.86%	6.48%	18.06%
2009	27.10%	8.05%	14.48%	6.43%	33.83%	23.83%	8.79%	4.56%	6.33%	23.49%
2010	27.55%	8.30%	14.44%	4.03%	33.79%	24.16%	7.77%	4.61%	5.99%	22.12%
2011	25.53%	10.03%	13.92%	5.78%	36.81%	24.71%	8.71%	6.12%	7.15%	18.85%
2012	28.38%	9.40%	22.81%	5.61%	38.08%	28.97%	8.59%	5.90%	7.15%	19.50%
2013	37.25%	8.54%	22.45%	8.39%	42.12%	32.39%	10.84%	6.45%	8.77%	21.85%
2014	84.49%	8.02%	62.06%	12.34%	73.91%	72.46%	14.71%	20.71%	20.32%	47.09%
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents										

Table 9 Ambulatory Care Follow-up with a privileged mental health provider within 30 Days of Inpatient Release

FY	Direct Care % Seen in 30 Days					Purchased Care % Seen in 30 Days				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	37.62%	16.72%	34.49%	29.27%	0.00%	39.12%	9.38%	24.01%	11.83%	6.98%
2004	38.66%	20.00%	41.97%	15.15%	21.43%	36.84%	10.56%	27.73%	14.28%	8.87%
2005	43.13%	18.51%	42.93%	16.67%	5.56%	41.57%	10.12%	29.06%	13.00%	9.44%
2006	41.79%	18.14%	46.66%	20.00%	23.08%	40.46%	11.04%	30.04%	11.83%	8.62%
2007	44.54%	18.50%	45.61%	34.48%	8.62%	39.95%	11.64%	30.14%	11.95%	9.48%
2008	38.83%	25.00%	46.45%	29.03%	13.21%	36.19%	11.34%	26.63%	10.37%	9.95%
2009	35.14%	20.91%	43.52%	21.74%	18.97%	32.62%	10.89%	31.63%	12.20%	7.04%
2010	35.85%	18.47%	40.18%	26.32%	16.67%	31.93%	10.60%	29.24%	13.05%	9.99%
2011	35.56%	19.70%	46.01%	11.76%	12.61%	33.42%	13.27%	26.25%	13.54%	8.52%
2012	37.78%	28.42%	43.65%	21.05%	10.83%	37.56%	13.05%	24.61%	11.59%	8.51%
2013	45.78%	30.84%	49.23%	35.71%	24.09%	43.23%	15.22%	31.57%	15.21%	9.97%
2014	92.52%	74.39%	83.70%	75.00%	49.75%	87.17%	41.04%	66.25%	34.89%	29.28%
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents										

Table 10 % Beneficiaries Readmitted within 30 Days of Release from Inpatient

FY	Direct Care					Purchased Care				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	16.02%	12.63%	18.22%	17.07%	14.29%	23.86%	33.62%	14.22%	24.95%	12.79%
2004	18.98%	13.11%	18.91%	6.06%	21.43%	28.22%	32.72%	19.83%	23.40%	28.57%
2005	17.21%	12.47%	19.19%	22.92%	2.78%	18.19%	26.97%	15.66%	19.53%	15.34%
2006	19.72%	12.03%	21.62%	6.67%	12.82%	19.62%	21.24%	16.82%	15.27%	15.26%
2007	20.64%	9.35%	18.64%	6.90%	6.90%	19.76%	17.98%	17.64%	13.78%	18.22%
2008	21.52%	8.26%	21.29%	6.45%	3.77%	23.15%	17.81%	15.20%	13.59%	15.95%
2009	21.83%	12.06%	24.69%	4.35%	17.24%	21.40%	17.18%	13.80%	13.68%	12.75%
2010	17.82%	7.64%	23.44%	10.53%	6.67%	19.83%	17.02%	14.83%	13.33%	13.19%
2011	16.88%	9.64%	17.53%	23.53%	17.12%	19.77%	18.17%	17.21%	15.02%	15.98%
2012	17.83%	11.05%	15.19%	5.26%	6.67%	23.61%	28.37%	22.68%	20.35%	19.07%
2013	15.74%	11.13%	17.69%	0.00%	8.76%	25.32%	32.84%	25.65%	24.29%	22.51%
2014	14.53%	8.22%	18.91%	0.00%	4.43%	31.22%	38.22%	29.53%	30.08%	26.56%
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents										

Table 11 Emergency Department Use for Mental Health Conditions in Direct and Purchased Care

FY	Total Emergency Department Visits	Direct Care Emergency Department Visits					Purchased Care Emergency Department Visits				
		ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	14727	4964	3701	1457	186	47	843	2166	377	848	51
2004	16035	5210	3657	1672	229	79	960	2271	568	1184	136
2005	16915	5654	3739	1102	288	134	1188	2351	663	1381	233
2006	18175	6178	3937	1071	233	229	1395	2553	757	1210	386
2007	20715	7759	4034	1113	175	303	1665	3080	689	1130	497
2008	25856	9330	5511	1263	227	415	2215	3654	853	1219	744
2009	27353	10051	4914	1169	216	389	2628	3986	931	1448	1025
2010	31202	11951	5725	1332	183	541	2407	4396	976	1568	1311
2011	36863	15146	6916	1254	202	726	2723	4689	878	1406	1832
2012	40116	17467	7107	1271	198	868	2782	4882	845	1353	2273
2013	36448	14996	6581	1017	198	1032	2391	4422	740	1209	2735
2014	31664	11651	5124	866	163	1021	2266	4141	616	1033	3612
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents											

Table 12 Emergency Department Follow Up Across Direct and Purchased Care

FY	Total Emergency Department Visits	Direct Care Emergency Department Visits					Purchased Care Emergency Department Visits				
		DC Admit	PC Admit	DC OP	PC OP	Not Seen	DC Admit	PC Admit	DC OP	PC OP	Not Seen
2003	14727	1248	516	4518	1309	2837	37	1047	738	262	1057
2004	16035	1431	456	4941	1324	2740	49	1118	978	321	1252
2005	16915	1428	561	5343	1370	2310	49	1298	1181	347	1379
2006	18175	1470	578	5808	1486	2410	29	1420	1320	381	1575
2007	20715	1673	745	7144	1641	2320	60	1570	1528	377	1856
2008	25856	2048	952	8447	2220	3233	59	1852	2026	464	2285
2009	27353	2084	1177	8587	2168	2949	70	2132	2176	549	2639
2010	31202	2361	1946	9892	2322	3437	75	2341	2049	689	2933
2011	36863	2940	2704	12073	2764	4072	69	2464	2350	692	3127
2012	40116	3222	3362	13816	2681	4127	69	2659	2308	816	3140
2013	36448	3365	2702	12053	2030	3966	64	2487	1929	960	2987
2014	31664	3579	1550	9423	872	3641	81	2402	1638	2123	2508
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents											

Table 13 Ambulatory Care Users and Fragmentation Across Direct and Purchased Care

FY	Unique MH Users					Unique MH Users with Fragmented Care				
	ACT	DA	GRD	DGR	RET+DR	ACT	DA	GRD	DGR	RET+DR
2003	25,630	52,070	6,493	11,620	967	811	7,638	349	426	89
2004	27,959	56,249	9,509	17,272	2,116	932	8,220	574	576	214
2005	32,119	59,039	9,986	19,785	4,006	1,115	8,186	692	602	309
2006	37,118	63,325	11,600	19,389	6,612	1,207	8,093	786	602	444
2007	45,495	69,292	11,836	18,190	8,755	2,163	8,967	769	588	549
2008	58,254	75,872	13,706	19,808	11,413	4,347	10,043	945	704	695
2009	69,535	85,590	14,939	22,562	14,776	5,655	10,135	1,118	656	829
2010	79,223	96,779	16,096	24,636	19,433	6,852	11,421	1,340	671	1,024
2011	87,082	105,122	16,150	23,677	24,137	7,160	13,016	1,443	687	1,282
2012	96,884	110,829	16,479	22,806	30,185	9,400	14,326	1,585	674	1,649
2013	97,432	110,778	15,295	20,641	37,223	9,200	14,655	1,395	762	2,130
2014	90,991	104,960	13,471	18,364	45,727	7,059	13,760	1,076	691	2,701

ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents

Fragmented Care: 2 or more outpatient visits in a mental health clinic in both direct care and purchased care

Table 14 Ambulatory Care Fragmentation % Across Direct and Purchased Care

FY	Ambulatory Care Fragmentation % Across Direct and Purchased Care				
	ACT	DA	GRD	DGR	RET+DR
2003	3.16%	14.67%	5.38%	3.67%	9.20%
2004	3.33%	14.61%	6.04%	3.33%	10.11%
2005	3.47%	13.87%	6.93%	3.04%	7.71%
2006	3.25%	12.78%	6.78%	3.10%	6.72%
2007	4.75%	12.94%	6.50%	3.23%	6.27%
2008	7.46%	13.24%	6.89%	3.55%	6.09%
2009	8.13%	11.84%	7.48%	2.91%	5.61%
2010	8.65%	11.80%	8.33%	2.72%	5.27%
2011	8.22%	12.38%	8.93%	2.90%	5.31%
2012	9.70%	12.93%	9.62%	2.96%	5.46%
2013	9.44%	13.23%	9.12%	3.69%	5.72%
2014	7.76%	13.11%	7.99%	3.76%	5.91%
ACT: Active Duty; DA: Active Duty Dependents; GRD: Guard/Reserve; DGR: Guard/Reserve Dependents; RET+DR: Retiree and Retiree Dependents *Fragmented Care: 2 or more outpatient visits in a mental health clinic in both direct care and purchased care*					

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