Impact of mental health and substance abuse on outcomes

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Paper 2 - MH/SA/sites of care IMPACT

- **The post-discharge site of care transitions as well as onset of mental health and substance abuse diagnoses have significant implications for cumulative cost of care.**
- More than a third of patients discharged home will transition into higher-cost care settings over the course of the following twelve months.
- On an annual basis, approximately **one third of patients discharged from a hospital, have a mental or behavioral health condition**. **Half of patients (2504 out of 5481) readmitted within 30 days of discharge have** a mental or behavioral health diagnosis.

The need to attend to discharged patients' mental health and/or substance abuse (MH/SA) issues is often neglected. MH uniquely increases readmission across many diagnoses. The challenges of mental and behavioral health after leaving the hospital are well-known, as are the difficulties faced by all patients in managing follow-up appointments and coordinating medication logistics. Patients with mild and moderate-to-severe depressive symptoms during a hospitalization have an increased dose-dependence, meaning that less severely depressed patients have an increased readmission rate within 30 days of discharge when compared to those that are more depressed. In addition, patients with comorbid mental illness are at higher risk for 30-day all cause readmissions than those without MH disorders [3].

Results and Findings

Analysis of MarketScan data of 3.5 million commercially-insured individuals found healthcare expenditures to total $16.4 billion annually, or $455 per member per month. Roughly 4% had inpatient admissions during the year with the average cost of admission (allowed charge) being $20,670. However, this small cohort accumulated over $6 billion in healthcare costs, representing more than one third of the entire population's health care cost. Total cost per member per month equaled $4,149 for those with an inpatient admission while the remaining 96% of the population with no inpatient admission incurred PMPM costs of $301.

Table 1. Costs of Admitted and Non-Admitted Members

Metric	Admitted	Non-Admitted
Member Count		
Members with MH/SA	*47,233*	*449,341*
Members without MH/SA	*92,026*	*2,930,761*
Total Member Count	139,259	3,380,102
% of Population	**4%**	**96%**
Cost of Care		
PMPM for Members with MH/SA	*$5,170*	*$644*

PMPM for Members without MH/SA	*$3,563*	*$243*
Total PMPM	$4,149	$301
Total Annual Spend	$6,003,921,174	$10,408,729,595
% of Population Annual Spend	**37%**	**63%**

MH/SA drives recovery and readmission

Significantly, members with mental health and substance abuse diagnoses represent one-third of all discharged patients, and account for over 40% of the cost of the admitted cohort. Mental health and substance abuse conditions further skew outcomes and drive up costs in both the admitted and non-admitted cohorts by a factor of 1.5 to 2.6. Moveover, the prevalence of mental health conditions is greater in the admitted population (33%) compared to the non-admitted (13%).

Site of care transition drives recovery and readmission

This whitepaper found that the post-discharge site of care transitions has significant implications for the cumulative cost of care. More than a third of patients discharged home will transition to higher cost settings over the course of a year. Mental health and substance abuse diagnoses add significantly to admission / readmission rates and costs. Prior research indicates that post-discharge interventions that activate and engage patients in self-management are beneficial in mitigating overall cost and readmissions.

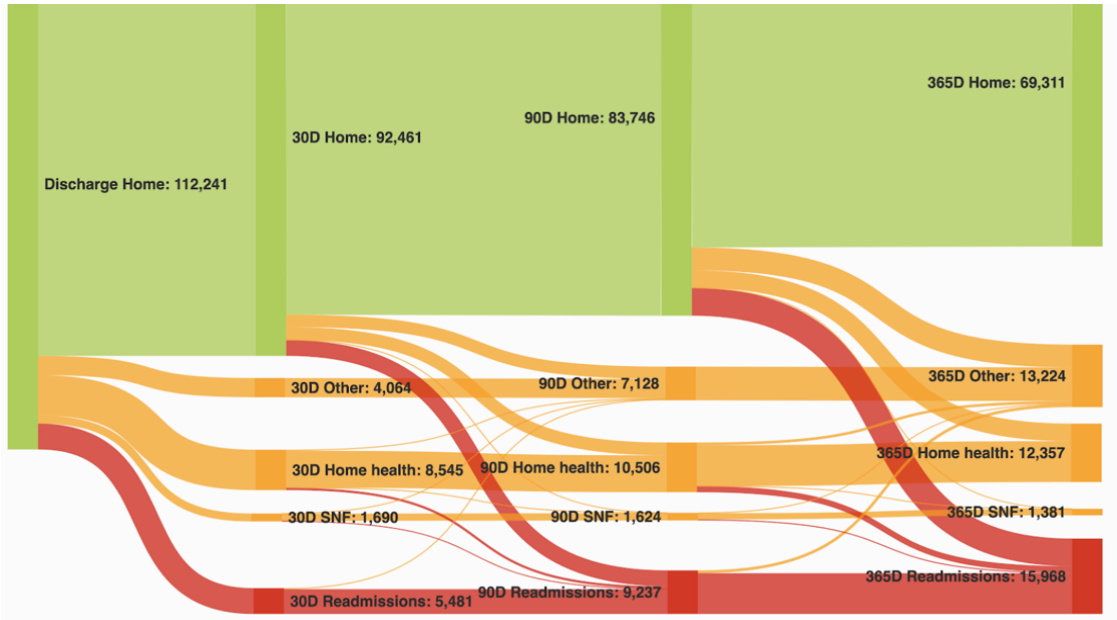

FIG. 2. Patient pathways: patients discharged home. D, days; SNF, skilled nursing facility.

Figure 2 shows the patient journey of a patient discharged home. The analysis shows that 80% of discharged patients (112,241; green bar) are discharged to home (without home health support). During the first 30 days post discharge more than 15% of these patients transition to other settings of care, as indicated by the orange and red bars. A total of 4064 patients terminate coverage (denoted by "Other"). Over the balance of the year more patients transition, resulting in transitions of 40% of the patients initially discharged home; only 60% of patients discharged home remain home without transitioning to a more intensive place of service.

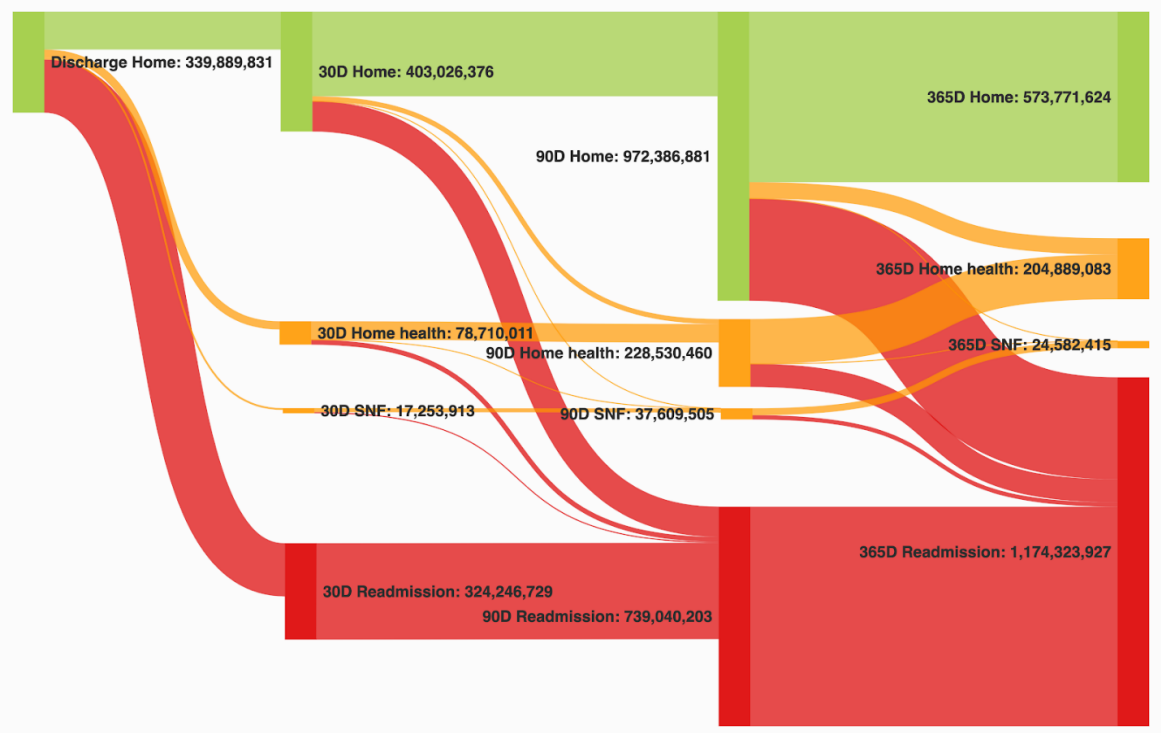

FIG. 3. Cost accumulation: patients discharged home. D, days; SNF, skilled nursing facility.

Figure 3 shows the relative cost of the transitioning patients. The green bars (aggregate cost of patients discharged home who do not transition) are now relatively minor compared with those of transitioning patients (orange and red bars). This pattern is most significant by the end of 365 days – patients who are readmitted cost $1.2 billion in aggregate compared to patients who remain at home, costing $0.6 billion.

On an annual basis, approximately one third of patients discharged from a hospital, have a mental or behavioral health condition. Half of patients (2504 out of 5481) readmitted within 30 days of discharge have a mental or behavioral health diagnosis.

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