Evaluation FastFacts

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This is one in a series of briefings on new and current mental health services evaluations, resources, and methods. We hope FastFacts will be a quick and easy way for you to learn important information in the field of evaluation. If you have any ideas on how FastFacts could be more useful to you, please contact Dow Wieman, Ph.D. at 617-876-0426 x2503 or dwieman@hsri.org.

Evidence Supports Medical Cost Offset

The ever growing focus on the benefits and costs of public mental health (MH) services has rejuvenated an interest in the potential for mental health services to reduce subsequent utilization and costs of other public services. This potential "cost offset" of mental health services has been held out by some as a pragmatic reason to support the expansion of mental health services and, recently, mental health parity laws. Measures of cost offset have also gained importance as managed care has brought fiscal considerations to the forefront. The various discussions and debates about cost offset in these contexts, however, have not always been informed by the evaluation and research literature. In this Evaluation FastFacts, we review the evidence from the literature on this important and timely topic.

What is cost offset?

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Simply put, the cost offset hypothesis is:

> "The treatment of mental illness results in a subsequent reduction in the utilization of other...services. If such a decrease takes place, then the cost of mental health services will be 'offset,' in whole or in part, by the reduction in the cost of other services."[1]

Mental disorders are known to typically use a disproportionate amount of nonpsychiatric medical services compared to the general population[2] and have been shown to become involved in criminal justice and social service settings in fairly large numbers as well[3,4]. The literature on cost offset exists almost exclusively, however, on the relationship between mental health treatment and subsequent medical care utilization.

Studies of medical cost offset

The overwhelming majority of studies that address cost offset as we define it examine medical cost offset, the utilization and associated costs of medical care following mental health treatment. Furthermore, most studies of medical cost offset have focused on persons with mild to moderate mental illness.

Studies of medical cost offset date back as far as 1962 when Cummings et al.[5] used data on cost offset to persuade Kaiser Permanente to include a prepaid psychotherapy benefit for their HMO enrollees. Among a group of nearly thirty early cost offset studies completed in the following several years, all but one demonstrated positive results of MH treatment. The results, however, varied greatly in the magnitude of savings found[5].

Subsequent studies continue to point to the ability of mental health and/or chemical dependency treatment to reduce utilization of medical services. Mumford and colleagues[6] conducted a meta-analysis of 58 controlled studies and found support for the medical cost offset effects of outpatient mental health treatment. Their concurrent study on utilization from a large private insurance database also reported significant medical cost offset, most of the savings being derived from a reduction in hospitalization. They hypothesized that mental health treatment allowed patients to stay healthy enough to avoid hospitalization for medical problems. A recent 14-year longitudinal study by Holder and Blose[7] reported a reduction in total health care costs following initiation of treatment for alcoholism ranging from 23 to 55 percent. Statistical analysis found the total post-treatment health care costs of persons treated for alcoholism to be 24 percent lower than comparable costs for a group of persons who were diagnosed with alcoholism but remained untreated.

Methodological limitations suggest caution in interpreting the evidence of medical cost offset. Most studies have employed a pre-post design where each individual subject serves as his or her own control[8]. Since medical expenditures tend to peak near the initiation of MH interventions, the subsequent reduction in medical costs could be simply observation of regression to the mean1. While a few studies did examine medical costs for a treatment or experimental group and a no-treatment control group, since these studies did not randomly assign subjects to groups, they may be influenced by selection bias; i.e., the persons choosing MH treatment may not be equivalent in their utilization of medical services to the no-treatment group, irrespective of the MH treatment. Fraser[9] also warns that use of simple indicators of cost offset such as percentage change in cost and use of hospital care may produce deceptively positive results.

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Studies of other cost offsets

Few, if any, studies have analyzed systematically the effects of mental health service provision on other public costs outside of medical care. Most common are studies that address the possibility of cost shifting or substitution of services among different public systems[10, 11]. These studies have established that

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mental health services and other public services are at least somewhat substitutable. This provides the basis for a reasonable hypothesis of cost offset, but we were unable to find any evidence with respect to the possible reduction of other, non-health care, public costs following mental health service provision. Studies of system interventions' cost offset

While medical cost offset has been found in a variety of settings and based on a variety of mental health interventions, observers generally agree that the effect is more likely to occur in organized settings. This observation clearly has implications for systems level issues. Cummings5 argues that "the more organized and homogeneous the practitioners, the more likely is the positive outcome" (p. 218). As evidence for this assertion, he cites demonstration of medical cost offset with HMO practitioners trained in brief psychotherapy, while Schlesinger et al.[12] found less positive results in a fee-for-service (FFS) setting. This line of reasoning leads him to conclude that managed mental health care carries with it the ability to magnify medical cost offset effects of mental health services. He concludes, "Medical cost offset research parachuted into a traditional setting cannot be expected to yield positive outcomes. Savings are found in organized (managed) care settings and not in the private fee-for-service sector, explaining the contradictory findings of many past studies"[5].

A 7 year prospective study of the entire Medicaid population of the Island of Oahu confirmed that medical cost offset is less likely to occur in traditional, non-managed care settings[13, 14]. This study compared medical utilization for three groups. The cost of the mental health/chemical dependency (MH/CD) services for the group in the managed care environment were more than offset by savings on their medical costs while both the fee-for-service group and the no MH/CD treatment groups experienced double digit increases in their medical and surgical costs.

Conclusion

In sum, there is substantial evidence supporting medical cost offset following provision of mental health services. Recent studies suggest this effect is more likely and/or more pronounced in managed care settings. Conversely, we found no systematic evidence supporting cost offset effects for other public services such as criminal justice involvement or social service provision. Care should be taken in applying these results, especially considering differences in populations served and services provided.

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