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DISSERTATION

The Ecological Context of Substance Abuse Treatment Outcomes

Implications for NIMBY Disputes
and Client Placement Decisions

JERRY O. JACOBSON

This document was submitted as a dissertation in June 2004 in partial fulfillment of the requirements of the doctoral degree in policy analysis at the Pardee RAND Graduate School. The faculty committee that supervised and approved the dissertation consisted of Richard Hillestad (Chair), Ricky Bluthenthal, and Jonathan P. Caulkins.



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1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516
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Abstract

Treatment is an important part of the war on illicit drugs. However, most of the more than 1.1 million annual admissions to treatment end in client dropout. Why treatment often ends this way is largely unknown, though scholars have examined a number of factors related to client characteristics and program components. Absent from research on treatment outcomes to date is location: the physical, social, and economic attributes of neighbourhoods where treatment clients live and receive treatment. The omission is surprising, given that drug use is often viewed as a societal pathology with its roots in a number of factors that depend on local conditions. I develop hypotheses of the influence of “treatment ecology” on retention, characterize the residential and treatment environments of the population of treatment clients in Los Angeles County in the period 1998-2000, construct multi-level Bayesian models to test for an association between neighborhood-level factors and client retention using individual-level episode data for publicly-funded programs, and derive bounds on the expected impact of location-oriented policies on individual and countywide retention. Four contextual factors are examined: drug availability, social stressors, proximity to jobs, and proximity to retail establishments. Small-area proxy measures of each are developed using Census data and administrative data from a number of state and county agencies. I find that clients’ residential environments are significantly worse than those of the non-client household population, particularly with respect to social stressors and drug availability, that the neighborhoods of treatment centers are worse still, and that homeless, African American, and other minority clients face the worst environments overall. Failure to complete in both outpatient and residential settings is associated with neighborhood-level social stressors. Provided these associations are causal, which remains to be shown, a policy that matched all clients with the most appropriate neighborhood would increase the county-wide rate of retention by up to 30%, resulting in 1670 additional completions in the first year of such a policy. Neighborhood-level variation in L.A. is such that, for each additional completion in residential care, one would need to invest 6.25 times more treatment capacity in the worst neighborhood compared to the best neighborhood (2 to 1 in outpatient). I review the literature on Locally Unwanted Land Uses and determine that while these analyses would be useful for selecting where to expand treatment, they are not likely to persuade opposed residents to host an unwanted treatment facility.