Environmental factors and quality improvement in county and local health departments.

OBJECTIVE: On the basis of resource dependency theory and the uncertainty principle, this study examines the relationship between the local public health market environment and the use of quality improvement (QI) strategies in local health departments.

DESIGN: This cross-sectional study uses secondary data from the 2008 National Association of County & City Health Officials profile study, the Health Resources and Services Administration's Area Resource File, and the County Health Rankings 2010 data set.

SETTING AND PARTICIPANTS: US local health departments.

MAIN OUTCOME MEASURES: Seven binary dependent variables that represented the use of QI processes or QI training within local health departments were used. Eight independent variables were identified and operationalized to measure the constructs of munificence, dynamism, and complexity for the local public health market environment. Bivariate and multivariate regression analyses were used.

RESULTS: Two of the 3 munificence variables were positively associated with QI, as predicted. These included percentage of zip codes with healthy food outlets ($\beta = +.016$, $P < .05$) and the number of primary care physicians per capita ($\beta = +1.327$, $P < .05$). Two of the 3 measures of complexity were, as predicted, negatively associated with indicators of QI. These included...
smoking prevalence ($\beta = -.118, P < .05$) and obesity rates ($\beta = -.081, P < .10$). With respect to dynamism, 1 variable (change in population size over a 5-year period) was unexpectedly, positively related to QI ($\beta = +.118, P < .10$ and $\beta = +0.235, P < .05$).

**CONCLUSIONS:** Overall findings provide moderate support for the use of resource dependency theory and the uncertainty perspective to understand the influence of the external environment on QI within the local public health setting. Future research should examine other ways of operationalizing these environmental constructs to examine the relationship between the environment and other elements of public health practice.

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