Model Standards Impact on Local Health Department Performance in California

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Abstract: An evaluation of a state-local negotiation process to implement Model Standards in 18 California local health departments was conducted during 1985-87. Model Standards specific to California were developed by state and local public health officials for seven programs. Nine counties participated in state-local negotiations to set performance standards in these seven programs.

During the two-year effort, greater use of Model Standards and more improvement in local program performance occurred in local health departments that participated in the state-local negotiation process. The use of Model Standards appeared to contribute to establishing program priorities, emphasizing the measurement of outcomes, improving data management systems, and evaluating the current performance of programs. While this state-local negotiation process is suggested as the preferred approach to encouraging the use of Model Standards in local health departments, it must be recognized that this process requires time and commitment of resources from both the state and local levels. (Am J Public Health 1989; 79:969-974.)

Introduction

Experience utilizing the Model Standards has substantially increased since 1979, when their use began as a collaborative effort among the US Conference of City Health Officers, the National Association of County Health Officials, the Association of State and Territorial Health Officials, the American Public Health Association (APHA), and the federal Centers for Disease Control (CDC). Beginning with the publication of Model Standards for Community Preventive Health Services, a number of reports have described uses for or experience with public health standards in general and with Model Standards in particular.2-9

Three major approaches have been used to implement the Model Standards process, each requiring different levels of administrative sponsorship: 1) statewide projects that have had strong state health department sponsorship; 2) local health department actions without state sponsorship; and 3) individual efforts by local program managers without strong local or state health department sponsorship. The relative effectiveness of the different levels of sponsorship has not been determined. However, the APHA and CDC are currently conducting a Model Standards Technical Assistance Project which is supporting and documenting the progress made in 13 local and state Model Standards projects.10

Two evaluations of the use of Model Standards have been conducted in California.11,12 The California approach to implementing Model Standards has involved the use of a state-local negotiation process to set local Model Standards objectives. On reporting the first project results, Weiler stated, “Project findings suggest that the Model Standards negotiations could provide state and local levels of government with a valuable tool for determining health care priorities and generating objective programmatic data for budget justification.”13 The strength of the project was determined to be the negotiation process itself, but both state and local program managers felt that the initial limited evaluation period did not allow for adequate assessment of the results of the process.

This report describes the results of more extensive efforts to assess the impact of Model Standards implementation in California. Specifically, this evaluation looked at five areas: 1) setting of objectives via a state-local negotiation process; 2) achievement of objectives and improvement in program performance; 3) impact of data availability and improvements in data collection; 4) administrative evaluation of the Model Standards process; and 5) key determinants to successful application of Model Standards.

Methods

There were two major components of this effort: 1) the specification of Model Standards specific to California, and 2) a comparison of the impact of state-local negotiations over the two-year observation period, January 1985 through December 1986. California-specific Model Standards were established for seven programs: Chronic Disease Control, Sexually Transmitted Disease (STD) Control, Tuberculosis Control, Food Protection, Nutritional Services, Vehicular Injury Control, and Non-Vehicular Injury Control. Eighteen counties participated, representing the demographic and geographic diversity of the State. The Health Officers Association of California (HOAC), a private nonprofit membership organization of California’s local health officials, was the independent organizational subcontractor charged with observing and evaluating the project.

Standards Specification

The first component of this project involved the specification of Model Standards for the seven programs noted above. A goal statement, outcome and process objectives, and key data indicators were specified for each of the seven programs. A total of 94 objectives were specified. The document used as the basis for this specification was the first edition of Model Standards.1 Committee comprised of both state and local program managers and health officers met over a three-month period to develop these standards, which were approved by the California Conference of Local Health Officers in April 1984.

Selection of Counties

California has 61 local health departments (56 single county health departments, one bi-county health department,
and four city health departments). State law delegates significant authority to the local level, while retaining broad state enforcement powers and considerable public health activity at the state level. Local health officers have a strong working relationship with the California Department of Health Services and are statutorily represented by the California Conference of Local Health Officers (CCLHO). HOAC conducts public health legislative, research, and educational activities.

Eighteen county health departments participated in this project; nine of them participated in negotiations with the State. All were selected because of their willingness to participate as either a “negotiating” or “nonnegotiating” county and their fitness to be paired with a comparable county for evaluative purposes. To select pairs representative of the State, a number of variables were identified as important selection criteria, and counties were paired according to these attributes (See Appendix).

Setting of Objectives

Prior to the beginning of each of the two observation years, all 18 counties completed an assessment document that included the California-specific Model Standards for the seven programs in the project. Each program standard contained a goal statement followed by a series of program objectives. For each program objective the following questions were asked:

- What is the current status of the objective?
- When can the objective be achieved?
- To what degree can the objective be achieved within the next year?
- How can achievement of the objective be measured or demonstrated?

In addition, State Health Department staff in the seven programs used the same assessment documents to assess the project counties from the State’s perspective.

Negotiations were then undertaken with nine counties. Completion of the negotiation process for all seven programs required two days, with each program negotiation session lasting approximately two hours. Participants in each negotiation session generally included the local health officer, local program manager, state program representative, a facilitator, and an observer. Usually, the state and local program representatives were the same individuals responsible for completing the assessment documents. Negotiations were on-site in the local jurisdiction so that local staff participation could be maximized. In all, 125 separate negotiation sessions were conducted during the two years, one at the beginning of each year in each of the nine counties.

In the nine counties not participating in the state-local negotiation process, program objectives were set by the local health department.

Local Implementation and Evaluation

Progress toward achieving the objectives set was evaluated at the end of each of the two years by means of on-site interviews and mailed questionnaires. Data were gathered to document changes in program performance, staff, funding, and data management.

Improvement in individual program performance was one of the key outcomes evaluated. Improvements in program performance were equated with setting and achieving program objectives (both process and outcome) at higher levels of performance than the baseline performance of the program as determined by the state and local health departments. Improvements in program performance were also self-reported in general by program managers and, if related to the use of Model Standards, were noted as such. No external measurement of program performance or improvement in program outcomes was conducted.

Results

Setting of Objectives and State/Local Negotiations

Ninety-four objectives covering all seven program areas were specified at the onset of the project so that, in the aggregate, a total of 1,692 objectives (846 each year) could have been set for both the negotiating and nonnegotiating health departments. During the two-year assessment, negotiating health departments set a total of 1,160 objectives, and nonnegotiating health departments set 830 objectives. A drop in target objectives occurred in the second year, with nonnegotiating health departments decreasing the number of objectives by 70 percent (637 to 193) and negotiating health departments by only 10 percent (611 to 549).

Negotiating health departments specified an increased level of performance in 725 objectives over two years, while this occurred for only 223 objectives in nonnegotiating health departments (Table 1).

In both groups, medium- and small-sized counties set their objectives at higher levels of performance most frequently. The specific programs in the second year that set objectives at higher performance levels most frequently were Non-Vehicular Injury Control (62 percent), Nutrition Services (62 percent), and Chronic Disease Control (60 percent). These programs generally had not achieved high levels of program performance prior to the study and had many objectives yet to achieve.

In both years, negotiating health department staff rated the state-local negotiation process as the most useful aspect of the project. Eighty-two percent of the programs reported staff benefits from negotiations, and 79 percent of the programs reported that state-local negotiations had a positive impact on program performance.

Achievement of Objectives and Improvements in Program Performance

As shown in Table 2, both negotiating and nonnegotiating departments achieved similar proportions of the objectives they had set but negotiating departments achieved 507 objectives and their counterparts only 177. Control of Sexually Transmitted Diseases and Vehicular Injury were the programs for which both sets of health departments reported the most objectives achieved.

The programs whose improvements in program performance were considered by both groups as due to the use of Model Standards were Tuberculosis Control (61 percent), STD Control (61 percent), and Nutrition Services (50 percent). Negotiating health departments reported that these programs also received significant technical assistance from state staff as a by-product of the negotiation process.

Negotiating health departments reported that Model Standards assisted in improving program performance in 40 of 63 programs, in contrast to 15 to 63 programs in nonnegotiating health departments. Programs that had a program organizational unit (e.g., Tuberculosis Control) and those that had state funding reported this impact most frequently. Thirty-two programs in both groups reported staff increases during the two-year study and 11 of these reported that the increases were due in part to the use of Model Standards. These staff increases were achieved primarily through inter-
TABLE 1—Setting of Objectives*

<table>
<thead>
<tr>
<th></th>
<th>Negotiating Health Departments</th>
<th>Nonnegotiating Health Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prior to Negotiation</td>
<td>Post Negotiation</td>
</tr>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health department agrees to increase its level of performance</td>
<td>19% (N = 97)</td>
<td>72% (N = 440)</td>
</tr>
<tr>
<td>Health department agrees to do the same as or less than the previous year*</td>
<td>81%</td>
<td>28%</td>
</tr>
<tr>
<td>Totals</td>
<td>N = 508</td>
<td>N = 611</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health department agrees to increase its level of performance</td>
<td>36% (N = 141)</td>
<td>53% (N = 285)</td>
</tr>
<tr>
<td>Health department agrees to do the same as or less than the previous year*</td>
<td>64%</td>
<td>48%</td>
</tr>
<tr>
<td>Totals</td>
<td>N = 391</td>
<td>N = 549</td>
</tr>
</tbody>
</table>

*There was a total of 94 objectives specified for the seven program areas. Thus the total possible number of objectives was 846 per year for each set of health departments (negotiating and nonnegotiating).

OBJECTIVES that were set at “maintenance of effort or less” levels were considered “pre-achieved.”

TABLE 2—Achievement of Objectives*

<table>
<thead>
<tr>
<th>Number of Objectives</th>
<th>Objectives Achieved*</th>
<th>Objectives Not Achieved</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiating</td>
<td>65% (N = 282)</td>
<td>35% (N = 152)</td>
<td>100% (N = 434)</td>
</tr>
<tr>
<td>Nonnegotiating</td>
<td>59% (N = 71)</td>
<td>41% (N = 49)</td>
<td>100% (N = 120)</td>
</tr>
<tr>
<td>Totals</td>
<td>63% (N = 353)</td>
<td>37% (N = 207)</td>
<td>100% (N = 560)</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiating</td>
<td>64% (N = 225)</td>
<td>36% (N = 182)</td>
<td>100% (N = 507)</td>
</tr>
<tr>
<td>Nonnegotiating</td>
<td>63% (N = 106)</td>
<td>37% (N = 63)</td>
<td>100% (N = 169)</td>
</tr>
<tr>
<td>Totals</td>
<td>63% (N = 431)</td>
<td>36% (N = 245)</td>
<td>100% (N = 676)</td>
</tr>
</tbody>
</table>

*This refers to objectives set at higher performance levels and objectives set at the same level (maintenance) but achieved at a higher level.

The data collection process had several directions in response to the commitment to achieve a higher level of performance.

Impact of Data Availability and Improvements in Data Collection

Overall, 15 of the 18 health departments reported that data availability was an important consideration in their decision to set specific Model Standards objectives. TB and STD Control programs had the most readily available data. In contrast, the setting of objectives for Non-Vehicular Injury Control and Chronic Disease Control was hindered by the paucity of data to measure outcomes.

Eight of the nine negotiating health departments reported that Model Standards had a positive impact on data management, in contrast to four of the nonnegotiating health departments. Most data improvements were in large county health departments, and ranged from gathering new primary data (e.g., smoking prevalence among pregnant women) to automating existing data systems. Data-related factors that contributed to the successful use of Model Standards included:

- knowledge about data sources that already existed;
- commitment to allocate staff time to analyze existing data;
- ideas generated by local staff about additional existing data sources and types of new primary data that could be easily collected;
- capacity to automate the local health department data system; and
- knowledge and experience of local program managers in using outcome data in program planning and evaluation.

Administrative Evaluation of the Model Standards Process

Model Standards were used primarily by negotiating counties as an administrative tool to increase program accountability and responsibility for achieving objectives; to improve evaluation of current program effectiveness and efficiency; to measure results (outcomes); to enhance communication between program managers and their staff; and to provide an opportunity for staff to participate in decisions that directly affect their work. Other uses included improving communication between the local and state health department and generally improving the state-local relationship. Major barriers to the use of Model Standards reported from both sets of counties were lack of staff, lack of program priority status within the health department, and lack of data.

Ongoing Use of Model Standards

Two of the major indicators of the usefulness of Model Standards are the degree to which the negotiating health departments have integrated Model Standards into ongoing planning and evaluation documents and activities and their intention to continue to use Model Standards. In both areas negotiating health departments responded more positively than nonnegotiating health departments. For example, only one of nine nonnegotiating counties reported integration of Model Standards, while five of nine negotiating health departments reported such integration. Only eight of 63 programs in nonnegotiating health departments intended to use Model Standards in the future, in contrast to 30 programs in negotiating counties.

Key Determinants to the Successful Application of Model Standards

Several local factors determined the success of using Model Standards in local health departments. These included:
SPAIN, ET AL.

- **Strong Local Health Officer and Program Manager Commitment.** Commitment to use Model Standards by the health officer was rated as extremely important to the successful use of Model Standards by most participants. In counties where the program manager was very involved, both in completing the assessment and in participating in the state-local negotiations, Model Standards were observed to be more useful and there were more improvements noted in program performance and data management.

- **The Priority Status of the Program within the Local Health Department.** The seven programs in which Model Standards were used were pre-selected by the State Health Department based on criteria set by CDC in their proposal guidelines. The same set of programs was used in all 18 counties. In order to be most successful, however, it appears as though local health departments should select their own priority programs to which they apply the Model Standards. For example, many local health departments felt that Chronic Disease Control and Injury Control were not their highest priorities, and they set fewer objectives in these areas.

- **Availability of Data to Set and Measure Objectives.** Health departments that were unable to gather baseline and program activity data had the most difficulty with setting and measuring objectives because they had neither reference points nor a way to measure achievement. This seems to be an area that must be effectively addressed at both state and local levels if Model Standards are to be used effectively.

- **Relationship of Model Standards to Existing Planning and Evaluation Tools.** Many local health departments were setting program process objectives and linking their program plans to state and local funding before the publication of the first edition of Model Standards. From this assessment, it appears as though the most successful health departments have used the Model Standards as a more specific and technical guide for program objective setting and integrated their "new" program objectives (based on Model Standards) into required county or state mandated plans tied to local budgets and contract funding. In health departments where Model Standards were linked to existing planning requirements, program managers reported improvements in the presentation of their program plans and budgets and, in some cases, increased funding for programs.

**Discussion**

Overall, it appears that use of a state-local negotiation process results in greater use of Model Standards and more improvement in program performance by local health departments than in the absence of such a negotiation process. Negotiations provided a forum for state and local health department staff to come together, share data and program information, and set realistic and meaningful objectives. The negotiation process improved over time because of an observed "learning curve." Both state and local negotiators understood the scope of the objectives and the indicators that existed, or could be developed, to measure outcomes, and they were more skilled at representing their positions.

We believe it important that the first step in this negotiation process be a consensus conference or series of conferences at which state and local health officials reach agreement on state-specific Model Standards. The time and effort necessary to achieve this consensus should not be underestimated, and our experience indicates that this requires clear and vigorous sponsorship at both the state and local levels.

In our project, technical assistance given to the local health departments by the state negotiators was not tied to funding, contract negotiations, or contract monitoring and it was rated very highly by local participants—possibly due to this factor. The discussions between state and local participants during the negotiations seemed to help the local participants adapt the standards to their resources, programs, priorities, and data availability. Much of the technical assistance was simply a by-product of the negotiation process itself. Although negotiating health departments had the same concerns about their limitations in setting and achieving the objectives as nonnegotiating health departments, they often chose to set more objectives because the negotiation discussion helped to focus on what a local health department could do within a one-year period to achieve a particular objective.

Both state negotiators and negotiating local health departments rated the negotiation process highly. The state negotiators generally felt that the ability to offer broad programmatic assistance was stimulating to themselves and useful to local staff. They also achieved a greater understanding of local programs, a better idea of the types of state assistance needed by counties to set local standards, (e.g., data) and an appreciation for which local health departments needed technical assistance in the future.

There are a number of difficulties that are encountered when conducting an evaluative study such as this one, including difficulties in achieving a true "control." In reality, the interest of local health departments in participating in the study was a factor that had to be considered. Although more counties were interested than were paired and participated, those that participated, either in the negotiating or nonnegotiating groups, were interested in being exposed to the Model Standards process. The true controls, one could argue, were the county health departments that did not exhibit an interest in participating in the study. In addition, because there was no external measurement of program performance conducted in either group of counties, the achievement of objectives and assessment of improvements in program performance, staffing, and funding were self-reported. Some of the achievements were related to improved outcomes in individual programs (e.g., more individuals served; delivery of a new program component) and some were related to process achievements (e.g., number of objectives set; integration of Model Standards into planning efforts).

From our experience, we conclude that a state-local negotiation process does improve local health department program performance but requires time and commitment of resources from both state and local health departments. We also believe such a negotiation process is the preferred approach to encouraging the use of Model Standards by local health departments. However, to be meaningful and to optimally meet the needs of both local and state health departments, both the use of Model Standards and the negotiation process should be integrated into the state health department's local assistance activities and should relate to clear state health department goals and administrative support.
## APPENDIX

### Distribution of Key Variables for Paired Counties

<table>
<thead>
<tr>
<th>Variables(^1)</th>
<th>SMALL COUNTIES(^2)</th>
<th>MEDIUM COUNTIES(^3)</th>
<th>LARGE COUNTIES(^4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mendocino</td>
<td>El Dorado</td>
<td>Madera</td>
</tr>
<tr>
<td>Total County Population (1000)</td>
<td>67</td>
<td>88</td>
<td>64</td>
</tr>
<tr>
<td>Percent Urban (&lt;5 years)</td>
<td>31.6</td>
<td>42.5</td>
<td>47.7</td>
</tr>
<tr>
<td>Percent Young (5-17 years)</td>
<td>7.8</td>
<td>6.6</td>
<td>9.1</td>
</tr>
<tr>
<td>Percent 65 Years +</td>
<td>11.9</td>
<td>9.9</td>
<td>10.8</td>
</tr>
<tr>
<td>Percent Black</td>
<td>0.5</td>
<td>0.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Percent Hispanic</td>
<td>5.5</td>
<td>4.6</td>
<td>26.8</td>
</tr>
<tr>
<td>Percent Under Poverty Level</td>
<td>12.3</td>
<td>8.7</td>
<td>15.7</td>
</tr>
<tr>
<td>Percent with 12+ Years Education</td>
<td>76.4</td>
<td>81.2</td>
<td>60.1</td>
</tr>
<tr>
<td>Median Income per Family ($1000s)</td>
<td>17.7</td>
<td>18.8</td>
<td>17.3</td>
</tr>
<tr>
<td>Median House Value ($1000s)</td>
<td>70</td>
<td>84</td>
<td>60</td>
</tr>
<tr>
<td>Ratio of Physicians to Population (100s)</td>
<td>5.9</td>
<td>8.9</td>
<td>16.0</td>
</tr>
<tr>
<td>Per Capita Public Health Service Expenditures</td>
<td>19.7</td>
<td>19.2</td>
<td>14.7</td>
</tr>
<tr>
<td>Total Public Health Services Expenditures ($1,000,000)</td>
<td>11.3</td>
<td>17.9</td>
<td>8.9</td>
</tr>
<tr>
<td>Number of Health Department Employees (FTE)</td>
<td>46.3</td>
<td>38.5</td>
<td>31.5</td>
</tr>
</tbody>
</table>

\(^1\) County demographic data obtained from the 1980 census, California State Department of Finance. Figures for ratio of population to physicians obtained from the Health Data Summaries for California Counties, 1982. Data for per capita public health services expenditures obtained from the County Health Services Report, 1982. Data for total public health services expenditures and number of health department employees obtained from the County Health Services Report, 1983.

\(^2\) Counties under 100,000 population.

\(^3\) Counties 100,000–300,000 population.

\(^4\) Counties over 300,000 population.


\(\text{N} = \text{Negotiating}

\(\text{NN} = \text{Non-negotiating} \)
SPAIN, ET AL.

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REFERENCES


AIDS Triggers Increase in State Worker Notification Laws

Notifying workers of possible exposure to the acquired immunodeficiency syndrome (AIDS) virus has become an important focus of state legislative activity, according to a report published by the AIDS Policy Center of the Intergovernmental Health Policy Project. The report, based on a 50-state review of more than 100 worker notification laws enacted between 1983–88, found that, at the end of 1987, 16 states had laws on the books requiring that workers—primarily emergency medical technicians (EMTs) and funeral personnel—be notified if they were exposed to HIV (human immunodeficiency virus) or other diseases. By the end of 1988, the number had doubled. More than half of state worker notification laws mandate that both emergency care personnel and a variety of other workers, ranging from health care providers to corrections staff, be notified of actual or potential exposure to HIV.

Some laws define patient contact very broadly referring to “any contact,” although more states now require that a worker must have “significant exposure”—i.e., direct contact and exchange of blood, needles, and scalpels—before notification will occur. Since 1988, state laws in 16 states define “significant exposure,” compared to only three states before 1988. The issue of testing following HIV exposure is a feature in a number of notification laws, although procedures regarding testing are not always outlined in these statutes. Notification leads to required testing in some states, usually of the patient to whom a worker was exposed. Patient informed consent is not always required, although 14 states now require or permit patients to be tested following worker exposure to HIV. Only six states (FL, LA, ME, RI, UT, WA) mandate patient informed consent before testing.

Few of the worker notification laws specify how the testing-after-exposure information is to be managed. A few states have levied penalties for breach of confidential information, including criminal penalties (AL, GA, IN, UT); licensure sanctions (ME, VA), dismissal from employment (IN).

Worker notification laws in 15 states require workers to be educated or trained in preventive procedures. Michigan holds employers liable in settings that have not developed and implemented policy guidelines for breaches of confidentiality of HIV-related information.

For further information about the report, contact: AIDS Policy Center, Intergovernmental Health Policy Project, George Washington University, 2021 K St, NW, Suite 210, Washington, DC 20006. Tel: (202) 676-8144.