# Meeting the Data Needs of a Local Health Department: The Los Angeles County Health Survey

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Monitoring the health status of populations is a core function of all public health agencies but is particularly important at the municipal and community levels, where population health data increasingly are used to drive public health decision making and community health improvement efforts.[1-3] Unfortunately, most local health jurisdictions lack important data for developing population health profiles, such as data on chronic disease prevalence, quality-of-life measures, functional status, and self-perceptions of health status. In addition, data on important determinants of health, including health behaviors and access to health care services, are rarely available locally.

These data frequently are collected in national and state surveys (e.g., the National Health Interview Survey and the Behavioral Risk Factor Surveillance System) and provide critical information to assess progress toward achieving state and national health objectives.[4] The surveys rarely serve local data needs, however, because of insufficient sample size and lack of flexibility to address local health issues. To address gaps in local health data, in 1997 the Los Angeles County Department of Health Services inaugurated the Los Angeles County Health Survey.

**THE LOS ANGELES COUNTY** Health Survey—a biennial, countywide, random-digit-dialed telephone survey—uses simple random sampling to query approximately 8000 households in a county of nearly 10 million persons with great racial and ethnic diversity. The sample size was chosen to produce meaningful population estimates for each sex, the 4 largest racial/ethnic groups, and the 8 service planning areas in the county. One adult (≥18 years old) is randomly selected from each household to participate in a 30- to 35-minute standardized interview. In households with children, an additional 20- to 25-minute interview is conducted with the parent or guardian of 1 randomly selected child. The interview is offered in 6 languages (English, Spanish, Cantonese, Mandarin, Korean, and Vietnamese).

Topics covered in the 1999 survey are shown in Table 1. The questionnaires were developed with broad input from Department of Health Services staff, community representatives, health care providers, and faculty from local universities. Many questions were selected from established health surveys to facilitate comparison of results with other jurisdictions and with Healthy People 2000 and 2010 national health objectives. A private research firm was retained to assist in the development of the survey, conduct the survey, and prepare the database for analysis. A Department of Health Services unit was formed to oversee data analysis and dissemination, respond to data requests from local organizations, and plan future iterations of the survey.

The survey results have been widely disseminated within and outside the county through public presentations, media coverage, fact sheets, county reports,[5] and publications in peer-reviewed literature.[6,7] A series of Department of Health Services briefs, called *LA Health,* has addressed specific high-priority topics—including health insurance coverage and other measures of health care access, overweight, physical activity, sexual risk behavior and HIV testing, tobacco use and public opinion regarding tobacco control policies, and women's health—in greater depth. These briefs appear on the department's public health Web site (www.lapublichealth.org).

The data on insurance coverage and health care access have facilitated better delineation of the health care needs of various county subpopulations and informed decisions about how to best allocate resources for services. For example, survey data were used by the Department of Health Services and key community stakeholders to develop a geographic allocation formula for expanding ambulatory medical services for medically indigent persons.[8] The data also identified areas of the county with the greatest concentrations of low-income uninsured individuals and families, facilitating better targeting of outreach activities for enrollment into public insurance programs.

**TABLE 1—Topics Covered in the 1999 Los Angeles County Health Survey**

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| **Adult survey** |
| Sociodemographics |
| Health insurance coverage |
| Health care access and utilization (e.g., medical, dental, mental health, social services, pharmaceuticals) |
| Use of clinical preventive services (e.g., blood pressure measurement, cholesterol testing, colon cancer screening, mammography and clinical breast examination, Papanicolaou tests, HIV counseling and testing, hormone replacement therapy) |
| Use of alternative health services (e.g., chiropractic, acupuncture, native healers) |
| Health status (e.g., self-reported health status, mental health, functional impairment) |
| Health conditions (e.g., heart disease, diabetes, hypertension, arthritis, depression, asthma, overweight, injuries) |
| Health behaviors (e.g., tobacco use, alcohol use, physical activity, sexual behavior, nutrition, gun ownership and storage practices, food-handling practices) |
| Elder health issues (e.g., disability, social activity and support, use of special services, immunizations) |
| Home and community environments (e.g., adverse impacts of drug and alcohol use by family members, domestic violence, neighborhood violence, perceived neighborhood safety) |
| Opinions on tobacco control policies |
| Perceptions of the health department |
| **Child survey** |
| Sociodemographics |
| Health insurance coverage |
| Health care access and utilization (e.g., medical and dental services; Women, Infants, and Children (WIC) program) |
| Parent-rated health status |
| Health conditions (e.g., asthma, attention-deficit disorder) |
| Developmental conditions (e.g., developmental delay, speech/language problems, disabilities) |
| Parenting practices (e.g., reading to child, television watching, infant sleep position) |
| Parental stress (4-item scale) |
| Family and parent support services (e.g., peer supports, parent education programs, home visits by a health professional) |
| Child care (e.g., types of services used, barriers to access) |
| Breast-feeding and other nutrition (e.g., introduction of cow's milk, fast-food consumption) |
| Physical activity and community resources |
| Injury prevention (e.g., car seats, smoke alarms, pool barriers, bicycle helmets) |
| Home environment (e.g., environmental tobacco smoke) |

The survey data also have played a critical role in Department of Health Services efforts to highlight the importance of chronic health conditions and related risk behaviors in the county population. The findings have been presented to the county Board of Supervisors and other local policymakers. These presentations generally have addressed specific health topics related to policy initiatives or budget requests rather than providing broad overviews of survey findings. The results have been included in department press releases, press conferences, and other public communications efforts and, as a result, have been covered widely by local electronic and print media.

The Department of Health Services' recently established Division of Chronic Disease Prevention and Health Promotion has used survey data to support successful requests for internal and external funding, including a physical activity promotion campaign funded by the Centers for Disease Control and Prevention, a community-based nutrition intervention, and a Community Access Program grant from the US Health Resources and Services Administration. The data have been used to lobby successfully for a portion of Master Tobacco Settlement funds to be used for prevention activities. Community-based organizations have used the data for grant applications and for planning and priority-setting activities. A large number of nonprofit community hospitals have included the data in state-mandated community health assessments.

The data have supported more detailed analysis of health disparities across subpopulations for which few data are available (e.g., subpopulations defined by socioeconomic status, race/ethnicity, immigration status, and sexual orientation). The Healthy People 2010 goals emphasize the importance of reducing these disparities and developing data systems to monitor progress toward this end.[9] The availability of survey data on income and education has enabled the Department of Health Services to examine more systematically the complex interrelationships between socioeconomic status, race/ethnicity, and a broad range of health behaviors and outcomes.

## HIGHLIGHTS

- To address important gaps in local health data, the Los Angeles County Department of Health Services implemented the Los Angeles County Health Survey—a biennial, countywide, random-digit-dialed telephone survey.
- The survey has increased local capacity to define the health care needs of underserved populations in the county and has provided an information base for better-informed resource allocation decisions.
- Survey data have been used by the Department of Health Services to more effectively highlight the importance of chronic health conditions and related risk behaviors in the county population and to secure funding for health promotion and disease prevention activities.
- Local population-based telephone surveys can provide valuable health data otherwise unavailable to local health departments and the communities they serve.

## DISCUSSION AND EVALUATION

Establishment of the survey as an ongoing Department of Health Services activity has required a substantial investment of resources. The annualized cost of the biennial survey, including personnel and data dissemination costs, is approximately $900 000. This expenditure is about one-third less than the annual expen-

diture for HIV/AIDS surveillance in the county.

As with all telephone surveys, the sampling frame in this survey excludes the estimated 3% of county residents who live in households without telephones. To reduce this potential source of bias, interviewers asked respondents if they had been without phone service at any time in the past 12 months, and the data were weighted accordingly.[10]

Up to 6 callback attempts were made to contact an eligible respondent at each selected telephone listing in the 1999 survey. Despite these efforts, the response rate was only 55% among those contacted—highlighting the challenges of conducting telephone surveys in an urban setting where telephone marketing and survey activities are widespread. Although this response rate is lower than what is generally viewed as acceptable by academic standards, it may be difficult to improve without substantial additional investment of resources. However, the similarity of results on several key variables to those from other surveys is reassuring. For example, the rate of uninsured among county adults aged 18 to 64 years was 34% in both the 1997 Los Angeles Country Health Survey and the 1997 Current Population Survey (N. Pourat, personal communication, January 2000).

## CONCLUSIONS

Local population-based telephone surveys can provide important health data that are not otherwise available to local health departments and the communities they serve. Although the public health impact of the survey is difficult to quantify, the data have been used extensively at the county and community levels and have improved the evidence base for many planning and resource allocation decisions. The survey's worth ultimately will be judged by the degree to which the data inform public health programs and policy decisions that improve health status at the county level and below. ■


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### Contributors

P.A. Simon, C.M. Wold, M.R. Cousineau, and J.E. Fielding directed the planning of the survey, monitored its implementation, and directed the analysis and dissemination of results. P.A. Simon wrote the paper, with contributions from all co-authors.


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