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**Written Remarks
to the
Little Hoover Commission**

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Mr. Chairman, Commissioners, Distinguished guests. Good afternoon. My name is Dr. Andrew Bindman and I am Professor of Medicine, Health Policy, Epidemiology and Biostatistics at the University of California San Francisco and the Chief of the Division of General Internal Medicine at San Francisco General Hospital. I am a practicing primary care physician and a health services researcher with substantial experience in using California state data to evaluate Medi-Cal and other state health care policies as well as the performance of the California health care system in general.

I come before you today to address the question of how data can be used to improve health care quality in California. I've been asked to do this in the context of anticipated health care reform.

Health Care Quality
In order to understand the role of data in improving health care quality, we first need to agree on what is meant by health care quality. This has been a somewhat elusive term that has been difficult for many to grasp. One framework for understanding health care quality that I believe can be helpful is that which has been put forward by the Institute of Medicine in its landmark report, "Crossing the Quality Chasm". In this report, the Institute of Medicine identified six major domains of health care quality: effectiveness, efficiency, equity, safety, timeliness, and patient-centeredness (IOM 2001). *Effectiveness* is understood as the appropriate use of evidence-based treatment and the ability of that treatment to achieve the intended therapeutic goal; *efficiency* refers to the use of health care resources in a non-wasteful manner; *equity* refers to the fair distribution of health care resources among all members of the population; *safety* refers to care that is done with a minimum of errors that result in detrimental patient events; *timeliness* refers to care given in a timely manner; and *patient-centeredness* denotes the ability of the health care system to focus upon patient preferences and allow patient values to guide clinical decisions.

Health Care Reform
Many believe, as do I, that the most glaring problem in California's health care system is the inequity in access to health care due to the lack of comprehensive health insurance coverage for all Californians. It is a hopeful sign that California's Governor, state legislative leaders, and several local county governments have recently articulated plans to address this problem. I wish them swift and complete success in addressing this challenging social issue. However, even if they are successful in expanding health insurance coverage, we cannot assume our health care quality problems are solved. Research studies of health insurance expansion in this country as well as internationally suggest that universal health insurance coverage is a necessary but insufficient ingredient for improving health care quality. An extensive review by the Institute of Medicine in its report, "Unequal Treatment" reveals that there are marked shortcomings in the quality of health care and disparities in health care by race and ethnicity even among insured populations in this country. Numerous research studies and daily practice experiences make it unquestionable that health care quality deficits are a highly prevalent problem in California as they are in other parts of the country. I would argue that California's lack of an adequate data surveillance system and tools with which to turn this data into policy-relevant information undermines our ability to track and address these quality shortcomings.

Role of Data
While the majority of health care is delivered in private settings, government in its role as a purchaser and regulator of care needs data to ensure accountability in its allocation of resources and to stimulate quality improvement efforts among providers. Transparent distribution of data provides a means for government to engage stakeholders in a dialogue that can result in a common understanding of health care issues and problems. Good quality data provides government with a more nuanced set of tools to encourage and lead the transition to a high performance healthcare system. Rather than reliance on more drastic threats of selective contracting or revoked licenses of low quality providers, good data on quality and costs of care facilitates collaborative quality improvement with all plans and providers. Key managerial objectives such as the rewarding of high quality performance (pay-for-performance) and cost-efficient purchasing (value-based purchasing) are possible with the availability of data that can support the assessment of performance and costs. Data are also critical for activating purchasers, providers and patients toward the objective of quality improvement. For example, public reporting of provider performance provides opportunities for patients (consumers) to exercise health care choices and this potential marketplace competition stimulates providers to undertake efforts to improve their quality.

Barriers to Data Analysis
Before I critique the shortcomings of California's public health care data I'd like to point out some of our natural strengths and successes in this area. One of the main limitations in using data to monitor the performance of the healthcare system is the number of observed events, such as deaths for a specified condition. California's large and diverse population provides a data resource opportunity not available in many other states. We not only have by virtue of our large population a statistically robust number of events by which to judge health care quality, but we have enough such events for many important population sub-groups, such as those in different racial and ethnic groups.

One place that we have seen this California advantage applied to good use is in the Office of Statewide Health Planning and Development's (OSHPD) hospital patient discharge data.

Hospital patient discharge data includes patient-level information on demographics, payer source, diagnoses, procedures and outcomes on every non-federal hospitalization in the state. California was a pioneer and remains a national leader in its application of hospital patient discharge data to create risk-adjusted hospital quality reports on conditions such as acute myocardial infarction and community-acquired pneumonia. These annual reports provide policymakers and consumers with important information on the quality of hospital care for prevalent hospital conditions. Furthermore, the availability of this data resource has stimulated the development in California universities of some of the nation's most highly regarded leaders in health outcomes and quality of care research.

Another area where California is making progress is in evaluating the performance of health plans. The Office of the Patient Advocate is developing an increasingly sophisticated assessment of health plan quality based on health care indicators collected in a standardized fashion.

While the potential for using health care data to improve California's health care system is great, there are substantial barriers to overcome in order to facilitate evaluation along the six domains of health care quality. Hospital discharge data is one of the few sources of information on the entire California population that are reported at the patient level. As useful as this information has been, it is inadequate in its scope both in terms of the number of conditions that are evaluated and for assessing care outside of the hospital. Hospital discharge data also does not have sufficient information to support judgments regarding the appropriateness of the treatments that were chosen, the timeliness of the care that was delivered, whether resources were used efficiently, how safely the care was provided or whether it was delivered in a patient-centered manner. To achieve improvements in the effectiveness, efficiency, equity, safety, timeliness and patient centeredness of California's health care, we will need to systematically collect additional patient-level information and from sites beyond the hospital. There is a paucity of public information from doctor's offices and clinics where the majority of preventive and chronic care is delivered and there are very few systematic efforts to gather patients' perspectives on their care. We will also need to increase the state's capacity to process data so that timely and comprehensive performance reports can be created.

Where to Begin
Med-Cal represents California's largest investment in health care. In the past year, the program covered approximately 6.5 million beneficiaries at a cost of more than $34 billion. Beneficiaries are poor and disproportionately from underrepresented minority groups. As the purchaser of this care, California has a special interest in ensuring that this care is effective, efficient, equitable, safe, timely and patient-centered. As a program, Medi-Cal suffers from many of the same limitations in health care data, as does California's healthcare marketplace in general. To administer this health insurance program Medi-Cal created data systems to primarily manage eligibility and claims. These administrative files support the payment of fee-for-service claims and capitation to managed care plans, but they lack the sort of patient-level information on clinical condition, processes of care, and outcomes of care that are needed to support judgments of health care performance for specific sorts of patients. With costs rising more quickly in the Medi-Cal program than in the growth of the state budget in general, there is an immediate need and incentive for California to improve its data infrastructure for the Medi-Cal program. In doing so there is the potential to develop data-gathering and analytic approaches that are not only useful for Medi-Cal, but that can serve as a model for California in its regulatory role for health care throughout the state.

Recognizing that the further development of data systems will take time and incur some additional costs, there are some intermediary steps that Medi-Cal can take to improve assessment of its performance. One important opportunity is the linkage of Medi-Cal's administrative data with other patient-level datasets such as the California hospital patient discharge data. Our research group at UCSF has used a linkage between the Medicaid eligibility files with the patient discharge data in a research study that was able to demonstrate that Medi-Cal managed care is associated with a large reduction in preventable hospitalizations compared to Medi-Cal fee-for-service care. The lower number of these hospitalizations in Medi-Cal managed care represented tens of millions of dollars per year of savings for hospital care services. This linked file has also been useful for demonstrating how the accuracy of the payer information can be improved in the hospital patient discharge data. Another potentially important data linkage would be with the data collected by Medi-Cal managed care plans. While the information value obtained from data linkages is often demonstrated through research projects, there are missed opportunities to make these linkages and the information they offer a routine part of the assessment of the Medi-Cal program. I suspect that one barrier that prevents on-going data linkages is the housing of datasets in different administrative units (e.g. Department of Health Services for Medi-Cal versus the Office of Statewide Health Planning and Development for hospital patient discharge data). Increased attention needs to be given to integrating data across state agencies involved with health care. A second barrier arises from Medi-Cal's limited number of personnel who are trained in the use of the analytic tools needed to create statistically valid performance reports from the linked Medi-Cal data files. Although highly qualified, Medi-Cal's professional data staff are too few in number to address all of the analytical needs from within state government.

CaMRI
The University of California has responded to a request from the California Department of Health Services to help the Medi-Cal program to address its needs for data modernization and analysis. Discussions on establishing an entity to undertake this collaboration have occurred over a two-year period and have been informed by academic and policy leaders involved in similar arrangements between state universities and the Medicaid agencies in a few other states. In anticipation of a proposed interagency agreement to perform this work, the University of California recently established the California Medicaid Research Institute (CaMRI) whose mission is to conduct research to improve the quality of Medicaid care for California's Medi-Cal beneficiaries. CaMRI can enhance the Medi-Cal program's health information, database, and statistical capabilities. Furthermore, an integrated collaboration between the Medi-Cal program and CaMRI offers an opportunity for more rapid assessments of Medi-Cal policies and for translating new research findings into practice.

Recommendations
Health care reform is rapidly re-emerging as significant social policy issue in California. Advances in health information technology and health services research analytic techniques provide new ways to evaluate and improve health care quality. To capitalize on these opportunities California state government should:

1. Commit to transparent use of data on health care quality to guide policy and decision-making
2. Develop a strategic plan for data needs based on health care quality goals – Institute of Medicine's six domains of quality are a good starting point

3. Focus data improvement efforts on the Medi-Cal program and closely related programs.
4. Integrate the health care data silos within California state government
5. Develop the capacity through strategic partnerships, such as with the University of California, to turn data into valid information on health policy and program performance.