COUNTY OF LOS ANGELES
HEALTH FACILITIES IMPROVEMENT AND REPLACEMENT PLAN

ANALYSIS

FINAL REPORT

OCTOBER 16, 1996

ROBERT E. TRANQUADA, M.D.*

HENRY W. ZARETSKY, PH.D.**

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* Norman Topping/ National Medical Enterprises Professor of Public Policy and Medicine, University of Southern California, Los Angeles, California.

** President, Henry W. Zaretsky & Associates, Inc., Sacramento, California.

This report was prepared under contract to the County of Los Angeles Department of Health Services. The opinions expressed are the authors', and do not necessarily represent those of the Department of Health Services.

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EXECUTIVE SUMMARY

The purpose of this study is to analyze the Department of Health Services' (DHS) proposed system-wide reconfiguration of inpatient services and beds from the current budgeted average daily census (ADC) of 2,300, to the target of 1,719 within five years. The focus is on the planned replacement and downsizing of LAC+USC Medical Center, with emphasis on the contribution of the LAC+USC replacement project to the service of the medically-indigent and Medi-Cal populations residing in Los Angeles County, and to remain the hub of the DHS system's trauma and specialty-referral network. In addition, planned projects at other DHS facilities are evaluated in light of a set of principles we propose to guide the redesign of the DHS delivery system.

There is no question that LAC+USC has to be replaced. The only question is its optimal size and mix of services. The shift in health care away from inpatient services, combined with increased competition from private-sector providers for Medi-Cal patients, mandates a major downsizing from the hospital's current inpatient capacity. LAC+USC has a unique role as the hub of the region's trauma network, a major referral center and the principal provider of care to the large uninsured population residing in its service area. Failure to replace the facility would leave a major hole in the county-wide trauma system and leave approximately 75 percent of its region's unsponsored indigent population with no reliable source of inpatient care, since funding is not available for large-scale private-sector contracting.

In reaching a recommendation regarding a recommended size for the replacement of Los Angeles County+USC Medical Center (LAC+USC), there are a number of factors that must be considered. These include the following, which have significant impact on the conclusion (there are others which have much less impact on the conclusion):

(1) The statutory obligation of the County for the care of the medically indigent;

(2) The traditional obligation to care for a substantial proportion of those eligible for Medi-Cal;

(3) The central role of DHS facilities, and especially LAC+USC, in the provision of trauma and emergency services to the general population. Indeed, the Los Angeles Model (Lewin-VHI) estimates that by the year 2000, in the absence of the reconstruction of LAC+USC, the 2.5 million residents of the LAC+USC service area would experience an annual shortage of emergency room services totaling 72,000 non-urgent, 175,000 urgent and 145,000 critical visits, or a total deficit of needed emergency room visits of 392,000 per year, with no prospect that they could be replaced in the private sector. In a shrinking trauma system, LAC+USC provides nearly 30 percent of the trauma care received by all residents of Los Angeles County;

(4) Other critical roles that have been served by LAC+USC for which alternative sources are not readily apparent include the inpatient service for the County Jails, the largest of only three acute burn centers in the County and its role as the largest single provider of inpatient and outpatient services for HIV patients in the entire county. LAC+USC has, for over a hundred years, been the principal site for County tertiary care medical services;

(5) Sixty percent of the County's indigent population lives within 10 miles of LAC+USC;

(6) Conversion of nearly all Medi-Cal recipients in the mandatory aid categories in Los Angeles County to managed-care sources of care by the end of Fiscal Year 1996-97;

(7) Thee have been major decreases in private hospital staffed-bed numbers and revenue margins available for subsidizing indigent care as the penetration of managed care has increased. Also, the observed five-year trend of significant decrease in provision of uncompensated care (i.e., charity, bad debts and county indigents) by the private hospitals at a time when the County burden of outlays for indigent patients was escalating rapidly;

(8) The requirement imposed by the Federal 1115 Waiver for reduction of DHS total average daily census from 2,288 budgeted for 1995-96, to 1,719, and a 50 percent increase in DHS ambulatory care capacity; and

(9) The likelihood that the medically-uninsured population in L.A. County will continue to increase with federal Medicaid reform, welfare reform and the absence of universal health-care coverage.

None of the available methods of calculating the future need for DHS-operated inpatient services is infallible; each is subject to potential significant variations in the actual results as compared to the assumptions that are proposed. Therefore, we chose to compare several methods of estimation, to determine if there was a reasonable consistency in the results of the different methods. As it turned out, there was relatively high congruence, as represented in Table 13 of our report, which displays the results of seven different methods of estimation of need for inpatient beds at LAC+USC in the year 2000.

The range of beds needed at 90 percent occupancy of from 684 to 833 beds is remarkably consistent for disparate methods of estimation. The mean of the five separate methods is 769 beds. ***Thus, it is our recommendation that the replacement facility be sized at 750-780 beds.***

Other recommendations include:

- A need to consolidate and closely coordinate the tertiary care services provided among the DHS acute care hospitals.

- An ongoing effort to increase the use of ambulatory care as an alternative to inpatient care.

- Continued efforts to decrease the average length of stay in DHS hospitals, thus improving the availability of DHS beds.

- Aggressive pursuit of Medi-Cal managed-care enrollees and patients, both as a way of preserving revenue sources and to become a more effective and efficient health-care provider in general.

- Because of the uncertainty surrounding any long-term projections in a volatile environment, DHS should have the ability to contract with private-sector providers for inpatient care as needed, on a limited basis. The most likely candidate to handle LAC+USC's overflow is USC University Hospital, given its location, excess capacity and overlapping medical staff with LAC+USC. Contracting through a delegation from the California Medical Assistance Commission (CMAC) could enable retention of credit for Medi-Cal disproportionate-share patient days and enhance DHS's marketing ability with respect to Medi-Cal managed care.

- Initiate actions to increase revenue to support indigent care and to encourage private-sector providers to expand their indigent care activities. Along these lines, the following initiatives are recommended:

  (1) Pursue state legislation to earmark newly-realized state and local tax revenue derived from conversion of not-for-profit health entities to for-profit status. The potential revenue from this source has not been investigated. It has the advantage of generating ongoing revenue without diverting existing revenues from other sources, since these tax revenues have not yet been collected or budgeted (this is new money).

The resulting indigent care fund could support both private and public providers of indigent care;

(2) Pursue state legislation to modify the SB 855 payment formula to give added weight to charity care and county indigent care provided by private hospitals. The major impact of this change would be to provide disproportionate-share hospitals incentives to provide more charity care and to contract with counties to provide indigent care;

(3) Pursue state legislation to amend SB 1732 to enable LAC+USC to modify its plans for the replacement facility while maximizing coverage for debt service subsidies within the context of a less-costly project than that which has already qualified;

(4) Work with L.A. Care to enable all plan partners to absorb a minimum level of indigent care (e.g., enroll indigent beneficiaries in some specified proportion to their Medi-Cal enrollees); and

(5) Work with the private disproportionate-share (DSH) hospitals to establish a consortium that would allocate a modest amount of indigent care among its members as a proportion of each member's disproportionate-share revenue. This entity could also contract with the County.

The alternatives to a LAC+USC replacement of 750-780 beds are as follows:

(1) Do not replace it. This is not an acceptable alternative because of the critical and irreplaceable role that LAC+USC plays for all County residents in provision of emergency and trauma services and the inability of DHS to meet even its minimal indigent care needs in its other facilities. This would also leave over $600 million of available capital funding on the table; $426 million in FEMA funds and approximately $200 million (on a present-value basis) in SB 1732 funds;

(2) Replace it with 600 beds, or less. Depending on the size of the replacement (and the amount of shelled space, if any), this would entail increasing denials of transfers from private hospitals, inadequate Medi-Cal revenues with which to pay for indigent care, and the need to either lease additional inpatient beds for indigent patients or contract with private hospitals for such care. Either alternative would require a revenue source for support that is not now in evidence; or

(3) Replace it with the original HFRIP structure of 946 beds. This number exceeds all of the separate calculations of need, and would most likely result in a

facility with excess capacity. Moreover, it would be contrary to the provisions in the 1115 waiver.

I. PURPOSE OF STUDY

The purpose of this study is to analyze the Department of Health Services' (DHS) proposed reconfiguration of inpatient services and beds from the current budgeted average daily census (ADC) of 2,300, to the target of 1,719 within five years. The focus is on the planned replacement and downsizing of LAC+USC Medical Center, with emphasis on the contribution of the LAC+USC replacement project to the service of the medically-indigent and Medi-Cal populations residing in Los Angeles County, and to remain the hub of the DHS system's trauma and specialty-referral network. In addition, planned projects at other DHS facilities are evaluated in light of a set of principles we propose to guide the redesign of the DHS delivery system.

There is no question that LAC+USC has to be replaced. The only question is its optimal size and mix of services. The shift in health care away from inpatient services, combined with increased competition from private-sector providers for Medi-Cal patients, mandates a major downsizing from the hospital's current inpatient capacity. LAC+USC has a unique role as the hub of the region's trauma network, a major referral center and the principal provider of care to the large uninsured population residing in its service area. Failure to replace the facility would leave a major hole in the county-wide trauma system and leave approximately 75 percent of its region's unsponsored indigent population with no reliable source of inpatient care, since funding is not available for large-scale private-sector contracting.

II. EVOLUTION OF PROPOSED RECONFIGURATION

The impetus for the reconfiguration is the combination of needed replacement and renovation of aging facilities, some of which were damaged in the 1994 Northridge Earthquake, and the Federal 1115 Waiver, mandating a one-third reduction in the system's inpatient capacity to 1,719 beds (on an average daily census [ADC]; i.e., filled beds, basis). In 1990, the Board of Supervisors approved a 946-bed replacement for LAC+USC, considerably downsized from the current 1,450 beds. (Reflecting declining inpatient volume, system-wide budgeted beds dropped from 2,595 in Fiscal-Year 1994-95, to 2,288 in 1995-96, and 2,055 beds in 1996-97.) In response to the 1115 Waiver, a declining census, the expected impact of Medi-Cal managed care and deteriorating economic conditions, DHS is considering smaller and less costly options for the replacement facility. The system-wide reconfiguration also includes the conversion of High Desert Medical Center from a general-acute-care hospital to an ambulatory-care facility, the privatization of Rancho Los Amigos Medical Center and the maintenance of the other hospitals at current capacity. As part of the 1115 Waiver, system-wide outpatient capacity is to be increased 50 percent.

Capital costs of the LAC+USC replacement project will be partially funded through a Federal Emergency Management Administration (FEMA) grant of $426 million to compensate

for 1994 earthquake damage, and Medi-Cal debt-service subsidies available through SB 1732. The latter will finance between 40 and 50 percent of debt service (a present value of approximately $200 million) related to construction and fixed equipment. Eligible SB 1732 projects, however, are generally restricted to those for which final plans were filed with the State prior to July 1, 1994. Thus, major modifications after that date could disqualify a portion of the project for SB 1732 eligibility.

III. METHODS

A. Factors Considered

There is a variety of methods which can be used to estimate the need for acute inpatient beds at LAC+USC in five or ten years. Each method requires the use of a number of assumptions regarding the following parameters:

- Population and demographic changes
- The effects of changes in the economy of the state and county
- The sources and amounts of future revenues available to the DHS
- The effects of changing bio-medical technology on health-care delivery
- The effects of changing health-care system design and payment on future hospital utilization
- Political decisions that may affect access for various populations
- Changing medical conditions for inpatient hospitalization and length of stay and greatly increased use of ambulatory settings for elements of medical care formerly provided in inpatient settings
- Changes in the private acute hospital industry that can affect its contribution to indigent care and the care of Medi-Cal patients

All of these factors are beyond the control of the County of Los Angeles, and all of them have potentially significant effects on the role of the DHS in patient care and the demand which DHS facilities may be called upon to meet.

Thus, it was our judgment that no single method of estimation of future bed need for LAC+USC was adequate to deal with all of the factors, and that there was no single method of

estimation which could be viewed as infallible. In response to those realities, we chose to use several methods to estimate future needs, with the intent of determining whether there might be a reasonable consistency in the results that the different methods provide. The degree of that consistency (or lack of consistency) then determines the validity we can assign to our conclusions.

The methods selected and compared were as follows:

1. The examination of currently reported data to the Office of Statewide Health Planning and Development (OSHPD) for the latest complete year -- 1995 -- as a baseline standard;

2. The use of Los Angeles Model (LA Model) [1] software with its existing default assumptions to determine the five and 10 year needs for acute inpatient beds for the medically indigent only for Regions 5, 7 and 8, as defined by the LA Model as primary service areas for LAC+USC;

3. A modification of the LA Model approach, allocating the uninsured population among the regions, estimating DHS' market share of this population, and projecting indigent patient days demand for each DHS hospital based on hospital market share, regional uninsured population growth and a 10 percent decrease in per-capita utilization rates;

4. The projection of existing trends in patient requirements, with respect to demographic changes, economic changes, hospital utilization changes and Medi-Cal changes, to provide estimates of bed needs to the year 2000. Demand projections are made for two categories: (1) all payer sources, and (2) Medi-Cal. The latter demand projection is then compared to Medi-Cal projections based on a procedure starting with a base of current LAC+USC mix and utilization, and assuming the following changes: a 50 percent reduction in the market share of Medi-Cal mandatory aid categories' utilization of County acute inpatient facilities as the result of institution of Medi-Cal managed care; a 20 percent reduction in inpatient utilization rates for this group of Medi-Cal patients; a 10 percent reduction in market share of the non-mandatory categories of Medi-Cal (lost to competitive private systems) with a 10 percent decrease in utilization rates attributed to change in medical care patterns independent of managed care;

5. A second trend projection similar to No. 4, but holding pediatric and psychiatric bed utilization at 1996 levels, reflecting the reduction already imposed by the effects of the 1994 earthquake;

6. A third trend projection, holding pediatric, psychiatric and obstetric bed utilization at

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[1] Study Report Prepared for the Steering Committee for the Study of Los Angeles Health Resources, Lewin-VHI, Inc., May 1995.

1996 levels;

7. A projection based upon the needs for beds to support the ongoing role of LAC+USC in trauma and critical emergency care. This method relies on the estimates of the LA Model to define the need for urgent and critical emergency visits, estimates the proportion of those visits that would result in hospital stays, and the proportion of those patient days (and beds) that would be provided to Medi-Cal patients entering through the emergency system. To that number is added the estimate of need for indigent beds to support the basic "DHS mission" as derived in methods 2 through 6;

8. The methods used in the Harvey Rose Report[2]; and

9. The original HFRIP estimates.

Projections are presented at various levels:

1. The 10 regions defined the by LA Model (see Figure 1 for a map indicating the regions);

2. The regional levels defined by DHS staff (i.e. aggregations of the LA Model Regions) -- one region per DHS hospital (defined in Table 1, and highlighted in Figure 1 for the LAC+USC region); and

3. LAC+USC census comparisons between 1995 and 2000.

B. Impact of Downsizing

The impact of downsizing DHS inpatient capacity, especially LAC+USC, is analyzed in terms of estimates of total inpatient indigent care provided by public and private hospitals in the County, and within each region. The potential for various levels of private-sector contracting is considered. Alternative scenarios regarding payer-mix at LAC+USC are assessed.

C. Data Sources

Data used in this study include the following:

1. Data reported in the LA Model study;

2. Population Estimation and Projection System (PEPS) data on population projections;

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[2]Evaluation of the Los Angeles Department of Health Services Health Facilities Replacement and Improvement Plan, Harvey M. Rose Accountancy Corporation, October 24, 1995.

3. Los Angeles County ISD Urban Research Section estimates of the uninsured population in Los Angeles County and its characteristics, and of DHS clients and their characteristics;

4. Office of Statewide Health Planning and Development (OSHPD) Quarterly Hospital Report data covering 1991-1995;

5. Medi-Cal Provider Statistics File data on hospital payments on behalf of Medi-Cal beneficiaries in the managed-care-mandatory aid categories;

6. Data reported in the "Harvey Rose Study;" and

7. Data on the county system provided by DHS staff.

TABLE 1

COMPARISON OF LOS ANGELES MODEL REGIONS WITH HOSPITAL-SPECIFIC REGIONS

L.A. Model Regions	Hospital-Specific Regions
1	High Desert (HD)
2	Olive View (OV)
3	Olive View (OV)
4	Olive View (OV)
5	LAC+USC (LAC)
6	Harbor (HAR)
7	LAC+USC (LAC)
8	LAC+USC (LAC)
9	Martin Luther King, Jr. (MLK)
10	Harbor (HAR)

IV. GENERAL CONSIDERATIONS

A. Funding for Indigent Care

The dependence of the county-indigent program on disproportionate-share hospital (DSH) funds (and Medi-Cal inpatient volume) is a major constraint, placing a floor on the potential for downsizing the system. Capacity must be sufficient to enable the system to maintain the dominant share of its county-indigent volume (at projected per-capita utilization rates), and to maintain necessary Medi-Cal volume to generate sufficient DSH revenue. Because of the dependence on the latter and the absence of other revenue to support indigent care, large-scale contracting with the private sector for indigent care is not an economically-viable alternative; nor is limiting LAC+USC's patient mix only to indigent and trauma patients.

We cannot predict how much longer the dependence on DSH funds may last. As Medicaid is reformed, more flexibility could be added to decouple disproportionate-share payments from Medi-Cal inpatient volume, enabling such funds to be at least partially linked to Medi-Cal outpatient volume and indigent care volume per se. This would enable planning a more cost-effective health system, designed to reflect the drastic shift in medical care away from inpatient settings, and to take advantage of the shift of market power from providers to purchasers.

While funding for indigent care continues to be reduced in real dollars, the demand for such services is expected to continue to increase. Funding for the $2.25 billion Los Angeles County DHS system is derived through a wide variety of sources, all of which are becoming more and more restrictive. Major sources of funds include:

1. State "Realignment" funds earmarked for counties, derived from a portion of vehicle license fees and sales-tax revenue. This source is budgeted at $392.1 million for Fiscal-Year 1996-97;

2. State Tobacco Tax allocations, budgeted at $63.8 million;

3. Disproportionate-share hospital payments (SB 855 and SB 1255), Medicaid funds matched against transfer payments from public hospitals and distributed to qualifying hospitals based on a statutory formula (SB 855) and through negotiations with the California Medical Assistance Commission (SB 1255). Net payments under SB 855 are budgeted at $136.7 million. SB 1255 net payments are budgeted at $136.4 million;

4. County general fund expenditures, of $159.3 million, which have declined from 28 percent of DHS funding in 1980-81, to 7 percent the current year. This traditional source of funding for county-obligation patients has been sharply reduced over the past 16 years in Los Angeles County (and most other counties) as county revenues have been diverted

to the state, and disproportionate-share (DSH) revenue, which is tied to Medi-Cal volume, has become a major source of funding for county-indigent patients;[3] and

5. The remainder, some $1.4 billion, is primarily made up of direct payments for patient care (e.g., Medi-Cal, Medicare, insurance, self-pay).

B. Extent and Distribution of Indigent Care

Likely future action to reduce the growth in Medicaid expenditures through, for example, granting states greater flexibility in exchange for less funds, will result in more obligations for counties. In addition, the recently-enacted Federal welfare reform legislation will reduce numbers eligible for Medi-Cal by placing limits on time periods for welfare eligibility and dropping legal immigrants (non-citizens) from AFDC and SSI. The population eligible for county general assistance (and medically unsponsored) will increase dramatically, especially in Los Angeles County. Moreover, the changing Los Angeles economy, moving away from manufacturing and aerospace and toward services and smaller employers, will further increase the ranks of the uninsured.

While recent increases in the uninsured population have been offset by increases in Medi-Cal eligibility[4], already-enacted welfare reductions are expected to prevent a continuation of this pattern. This trend could go even further if federal efforts to curtail Medicaid are undertaken in the future. The most likely scenario is an even greater increase in the uninsured, due to employment patterns and Medicaid reductions.

In assessing the impact of the uninsured population on DHS system requirements, it is important to note the variety of economic and demographic factors that characterize this population and thus influence the magnitude of the problem. Some of the most important factors describing this population in Los Angeles County include the following:[5]

1. 85 percent of the uninsured are workers and their dependents.

2. Most of the uninsured are full-time employees and their dependents.

3. The rate of uninsurance is highest among the self employed (47 percent) and part-time workers (40 percent).

4. It is lowest among full-time employees (28 percent).

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[3]Not only has the County general fund contribution declined in relative terms since 1980-81, it has dropped in absolute dollars (unadjusted for inflation), from $243.8 million, to $159.3 million.

[4]E. Richard Brown, "Health Insurance Coverage in California, 1993," UCLA Center for Health Policy Research Policy Brief, April 1995.

[5]Relating these factors to health status or health-care utilization was beyond the scope of this study.

5. Small firms (i.e., less than 25 employees) account for 1 million uninsured in Los Angeles County (38 percent of the total).

6. 47 percent of employees in small firms are uninsured.

7. 46 percent of Latinos are uninsured.

8. 25 percent of African-Americans are uninsured.

9. 17 percent of Anglos are uninsured.

10. The uninsured rate is one-third higher in Los Angeles than in the state as a whole.

11. While 31 percent of the non-elderly population is uninsured, 40 percent of the population between the ages of 18 and 29 is uninsured.

12. 45 percent of the poverty population (1.1 million people) is uninsured.

13. Of the population above the 200 percent of poverty level, 10 percent is uninsured (uninsured middle class).

14. While legal, non-citizen immigrants are currently eligible for Medi-Cal coverage if they fit within specified welfare-eligibility categories, under the recently enacted federal welfare reform, they will no longer be Medi-Cal eligible and will thus be added to the uninsured ranks. Approximately 25 percent of the Los Angeles population are immigrants -- 15 percent are legal immigrants, 7.6 percent are undocumented and 2.6 percent are citizen children of undocumented immigrants. The number of citizen immigrants currently covered by Medi-Cal is not known. If it assumed, however, that the proportion of the approximately 1,380,000 legal immigrants eligible for Medi-Cal reflects the proportion in the rest of the population (a conservative estimate), then the number of Medi-Cal recipients who would lose their Medi-Cal eligibility approaches 270,000 in the County. Those would be added to the current 2.6 million uninsured. Of the medically-indigent population (uninsured and living below 125 percent of poverty), approximately half are non-citizens.[6]

Thus, the uninsured are more likely to be poor, if employed they are working for small firms or working part time, and they are disproportionately Latino and African American. Even if they are employed full time and above 200 percent of the poverty level, if they become seriously ill or injured, they are at risk of spending down to medical indigency.

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[6]Items 1 through 11 were obtained from At Risk: Los Angeles County, The Health of its People and its Health System, UCLA Center for Health Policy Research, October 21, 1994. Items 12 through 14 were obtained from M. Cousineau, "Who are the Medically Indigent in Los Angeles," unpublished report, September 1996.

Table 2 sets forth the likely impact of selected factors on the size of, and health-care utilization by, the Medi-Cal and uninsured populations. In most cases, where a factor leads to an increase in the population, such as an economic downturn, it also leads to lower per-capita utilization, as the expanded population comes from formerly employed individuals. Exceptions are welfare reform and Medicaid reform, where the individuals dropped from Medicaid eligibility may be "sicker" than average (e.g., disabled). In all cases, it is expected that an increase in the uninsured population, notwithstanding possible changes in per-capita use, will result in an increase in indigent volume at all DHS facilities.

It is expected that proliferation of Medi-Cal managed care will also lead to drops in per-capita use on the part of the uninsured, as changes in delivery patterns adapted to manage Medi-Cal spill over into other patient categories. The effect of the disproportionate-share program has been to encourage greater Medi-Cal utilization at the expense of indigent care on the part of private-sector disproportionate-share hospitals. At the same time, that program has become the major source of funds for the county indigent care program.

The impact of the recently enacted health insurance reforms as they relate to portability and restrictions on exclusions for preexisting conditions is not known since some groups may have increased access to private coverage, but others may see their premiums increase to accommodate this new access. Some small employers caught in the latter group may drop whatever coverage they have. At this time, we do not believe that these reforms will have a discernible effect on the number of indigent or Medi-Cal eligibles in the County. The introduction of medical savings accounts, although limited, should have an adverse effect on the pool of insured individuals and groups, and thus encourage some to drop their coverage. Many advancements in bio-medical technology, in terms of new surgical techniques, therapies and drugs, have been responsible for a major portion of reductions in inpatient utilization. Further advancements are expected to continue changing the role of the hospital to an institution concentrating on providing care on a more and more intensive basis.[7]

The current inpatient payer mix at LAC+USC is approximately 50 percent Medi-Cal, 40 percent county indigent and 10 percent a mixture of Medicare and all other. Measuring indigent care as the sum of charity, bad debts and county indigent expenses on behalf of all private and public hospitals in Los Angeles County, of the $951 million total indigent care provided in 1995, the County system accounted for 75 percent ($711 million), with LAC+USC providing half of such care in the County system ($350 million). Table A1 (in the Appendix) presents data on indigent care, as reported to the Office of Statewide Health Planning and Development (OSHPD), for the 12-month periods ending September 30, 1993, 1994 and 1995. Private hospitals' indigent care expenses have dropped from $277 million in 1993, to $240 million in 1995, while County hospitals' expenses increased from $562 million to $711 million. (Defining

[7]This observation is reflected in the plans for the LAC+USC replacement, where the ratio of medical/surgical to intensive care beds is reduced from the current 10-to-1, to 4-to-1.

TABLE 2

EXPECTED IMPACT OF SELECTED FACTORS ON HEALTH-CARE UTILIZATION OF MEDI-CAL AND UNINSURED

Factor	Medi-Cal Population	Medi-Cal per-capita Utilization	Uninsured Population	Uninsured per-capita Utilization
Economic Downturn	+	-	+	-
Increase in Poverty Population	+	-	+	-
Increasing Use of Temporary or Part-Time Workers	+	-	+	-
Shift in Employment from Large to Small Firms	Indeterminate	Indeterminate	+	-
Welfare Reform	-	-	+	+
Medicaid Reform	-	-	+	+
Medi-Cal Managed Care	Indeterminate	-	Indeterminate	-
Disproportionate-Share Program	Indeterminate	+	Indeterminate	-
Private Health Insurance Reform (Portability and Pre-existing Conditions)	Indeterminate	Indeterminate	Indeterminate	Indeterminate
Private Health Insurance Reform (Medical Savings Accounts)	+	-	+	-
Bio-medical Technology Advancements	Indeterminate	-	Indeterminate	-

indigent care to include bad debts most likely inflates the estimate, since not all bad debts are on behalf of unsponsored patients. If bad debts are excluded from the definition (the fourth column from the right in Table A2), the amount of indigent care provided in 1995 is reduced to $72 million for private hospitals, and $700 million for DHS hospitals. The latter accounts for 91 percent of all indigent care provided by hospitals in Los Angeles County.)

Table A2 breaks down indigent care expenses by type of hospital according to DHS-defined region. It includes only hospitals with basic emergency services, since these hospitals would bear the brunt of providing indigent care if LAC+USC were allowed to close, or be downsized to an unrealistically low level. Note that in the LAC region (i.e., the service area assigned to LAC+USC, which combines LA Model regions 5, 7 and 8 -- see Fig. 1), non-county hospitals' indigent care costs were $80 million in 1995 (Line 9). LAC+USC alone incurred $350 million in such costs (Line 29). Thus, should the planned downsizing of LAC+USC result in a significant drop in indigent volume (e.g., 10 percent -- $35 million), indigent expenses at the region's non-county hospitals could increase 44 percent, assuming all the diverted patients would present at these hospitals' emergency rooms. Likewise, a 20 percent decrease in indigent care at LAC+USC could lead to an 88 percent increase at the non-county hospitals.

It is likely, however, that reductions in indigent care at County facilities would not be fully offset by increases at private hospitals, since the latter, in general, would not accept non-paying patients unless their conditions required emergency treatment. Thus, with reduced access would come reduced per-capita utilization rates, and in some cases, reduced health status.

Table 3 presents an attempt to derive per-capita patient day rates for uninsured Los Angeles County residents. It starts with County estimates of the uninsured population (2.5 million in 1994) in terms of employed, unemployed and retired, comparing DHS clients with the total uninsured population. The table shows the following:

1. While over half the uninsured DHS clients are unemployed (Line 2), only 23 percent of the uninsured population is unemployed. This reflects two factors. First, the unemployed uninsured are sicker than the employed. And second, some of the employed uninsured have some resources to pay for their care and thus do not choose the County system. Of DHS clients, 60 percent are uninsured, compared to 27 percent of the County population;

2. Based on the 1994 uninsured population estimate of 2.53 million (Line 4) and the DHS uninsured client total (Line 4), per-capita (in-and out-patient) expenses are estimated on the basis of 1995 bad debts, charity and county indigent expenses divided by the DHS and total uninsured populations, respectively. Per capita DHS client expenses were $1,543 (Line 9), and per capita county-wide uninsured expenses were $377 (Line 9); this reflects the fact that patients who utilize county facilities are sicker and poorer, thus unable to finance their own medical care costs.

3. The per-capita expenses are divided into inpatient and outpatient by applying the DHS inpatient to total county-indigent expense ratio to bad debts and charity. (The OSHPD data base does not separate bad debts and charity into inpatient and outpatient, but

provides this separation for county indigent expenses.) Per-capita inpatient expenses are $924 and $229 for DHS and the total uninsured population, respectively (Line 12); and

4. The uninsured patient-day rate per 1,000 population is derived by applying DHS indigent cost per patient day to inpatient expense per capita. DHS patient days per 1,000 uninsured clients is 607 (Line 16), compared to the county-wide uninsured rate of 151 (Line 16). This relatively low county-wide rate (approximately half the Medi-Cal AFDC rate) may reflect three factors: (1) restricted access (which decreases the numerator); (2) the qualification of some uninsured patients for Medi-Cal after they have received some care, thus reducing the amount of care they receive as uninsured patients (also decreasing the numerator); and (3) counting all uninsured persons as indigent (i.e., recipients of uncompensated care -- which increases the denominator). Independently, the LA Model estimated the uninsured patient day rate per 1,000 population at 156 in 1995 (compared to 173 in 1990 and a projected 140 in 2000). There is striking similarity between the two estimates. It should be noted that a portion of the difference between the DHS client use rate of 607 and the uninsured-population rate of 151 may reflect other peculiarities of the DHS system, including residents' practice patterns which emphasize inpatient care, and socio-economic characteristics of the DHS clientele (e.g., the homeless, AIDS patients, other patients with "social" problems) which also are associated with more hospital admissions and longer stays. We were unable to perform an analysis of the use of medical beds in terms of "Ambulatory Care Sensitive Conditions" (ACS); i.e., those medical conditions that could be treated on an outpatient basis.[8] We were also unable to do a similar analysis of the use of surgical beds, in terms of the potential to substitute outpatient for inpatient surgery.

While the LAC+USC downsizing proposal would reduce inpatient and outpatient capacity at that facility, DHS is in the process of increasing free-standing clinic capacity. To the extent outpatient access is improved, it is not known what the impact will be on inpatient utilization. On the one hand, a substantial amount of outpatient care can serve as a substitute for inpatient care, especially if patients seek care before conditions become emergent. On the other hand, however, to the extent the low uninsured inpatient utilization rate reflects restricted access (and not an inflated estimate of the population at risk), increasing access to outpatient services could in fact lead to increases in inpatient utilization. Thus, the inpatient utilization rate of DHS clients would fall, but the number of DHS clients would increase, thus tending to keep demand level.

The utilization rate of DHS clients could fall further, for another reason. To the extent managed-care expansion and changing medical technology affect the style of practice of fee-for-service medicine, DHS clients, on a per capita basis, would experience reduced inpatient

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[8]ACS conditions include asthma, uncontrolled diabetes, bacterial pneumonia, congestive heart failure, cellulitis, kidney infections and hypertension. These conditions are specified in the 1115 Waiver Application, Appendix A, p. 23.

utilization. Since the net impact of these forces is highly uncertain, the most prudent assumption is a stable-to-slightly-reduced inpatient utilization rate through the year 2000, with the uninsured population a constant percentage of the total population. As indicated above, the LA Model, in its conservative scenario, assumed a drop in the uninsured patient-day rate from 156 in 1995 to 140 in 2000 -- a 10 percent reduction.

Because of existing capacity constraints, LAC+USC accepts 70 to 80 percent of indigent transfer requests from other hospitals. The remainder are treated at the referring hospitals and most likely classified as charity or bad-debt write-offs. Capacity reductions, without more-than-commensurate reductions in patients with other payer sources (i.e., mainly Medi-Cal), will entail further reductions in acceptance rates. How far these reductions can go and still remain politically and economically viable is a major concern. During the period of great DHS budget uncertainty in September and October of 1995, DHS curtailed its acceptance of transfers to 50 percent and 70 percent, respectively. If the September reduction had been perceived by the referring hospitals as long-run policy, however, it may not have been politically acceptable.

Table 4 provides estimates of costs that would be incurred by DHS should it be required to reimburse private-sector hospitals for care of indigent patients, at volumes ranging from 50 to 350 patients per day. Payment rates are estimated at $822 per patient day, which is the average per-diem rate paid to Medi-Cal contracting hospitals in Southern California, net of any DSH payments, as of December 1995.[9] The willingness of private hospitals to accept Medi-Cal rates at this level, which is approximately 60 percent of average cost, depends on a continuation of the current excess hospital capacity situation in Los Angeles County. This per-diem rate excludes physicians' fees for inpatient services, which would have to be arranged and paid by the entities under contract. It is estimated (conservatively) that including the physician component would result in an average per-diem rate of $1,000.

Under this scenario (i.e., contracting for inpatient indigent care at Medi-Cal payment rates), should LAC+USC not be replaced, the County would pay private-sector hospitals approximately $127.8 million annually to care for its average daily census of approximately 350 county indigent patients. (Assuming per-diem payments increase at an annual rate of 2 percent to $1,105 by the year 2000, contracting for services for this volume level would cost DHS $141 million that year.) Without operating the hospital, however, the County would not be able to generate the Medi-Cal disproportionate-share revenue necessary to support the indigent care program. The most likely result, if the hospital were not replaced, would be minimal, if any, private-sector contracting, due to a lack of funds, and a marked increase in charity and other uncompensated care provided by private-sector hospitals. Under a downsized scenario, if, for example, LAC+USC could not accommodate 100 indigent inpatients daily, contracting costs, at a minimum, would be $36 million annually, assuming the County had the funds to support this

[9]California Medical Assistance Commission, Annual Report to the Legislature, January, 1996.

TABLE 3

ESTIMATED COUNTY-WIDE COST OF CARE TO UNINSURED 1994-95

Line	Type	DHS Clients	DHS Distribution %	Total Uninsured Population	Total County Distribution %	DHS Share of Total %
1	Employed Uninsured	221,000	47.9	1,865,000	73.9	11.9
2	Unemployed Uninsured	240,000	52.1	569,000	22.5	42.2
3	Retired Uninsured	0	0.0	91,000	3.6	0.0
4	Total Uninsured	461,000	100.0	2,525,000	100.0	18.3
5	Total Population	763,000		9,319,000		
6	Percent Uninsured	60.4%		27%		
7						
8	Total Expenditures on Indigent*	$711,117,000		$951,300,000		74.8
9	Per-Capita Expenditure	$1,543		$377		
10						
11	Inpatient Expenditures**	$425,884,000		$578,892,000		73.6
12	Per Capita Expenditures	$924		$229		
13						
14	Indigent Patient Days***	279,790		380,310		73.6
15	Cost per Patient Day	$1,522		$1,522		
16	Patient Days/ 1,000	607		151		

* County indigent + Bad Debts + Charity (1995).
** For DHS, County indigent only. For all hospitals, County indigent, bad debts and charity apportioned to inpatient, based on DHS county indigent allocation.

*** DHS county indigent patient days. For all hospitals, estimated by DHS indigent cost per patient day applied to estimated inpatient expenses.
Data source: Uninsured population and DHS clients -- L.A. County ISD Urban Research Section; County indigent, bad debts and charity expenses -- OSHPD Quarterly Reports for 12-month period ending 9/30/95.

level of contracting. Again, the most likely result would be a combination of a far lower level of contracting, combined with an increase in uncompensated care among private-sector hospitals.

TABLE 4

ESTIMATED COSTS OF PRIVATE SECTOR CONTRACTING FOR INPATIENT SERVICES UNDER VARYING VOLUME LEVELS

ADC	Patient Days per Year	Minimum Annual County Cost @ $822 per Patient Day	Including Physician Fees
50	18,250	$15,001,500	$18,250,000
100	36,500	$30,003,000	$36,500,000
150	54,750	$45,004,500	$54,750,000
200	73,000	$60,006,000	$73,000,000
250	91,250	$75,007,500	$91,250,000
300	109,500	$90,009,000	$109,500,000
350	127,750	$105,010,500	$127,750,000

C. Extent and Distribution of Medi-Cal

Moving back to Table A1, it is obvious that while Medi-Cal patient days have been increasing among the non-county hospitals from 1991 to 1995, they have been decreasing for the County system as a whole and for LAC+USC individually. Non-county hospitals have experienced an increase of 206,000 Medi-Cal patient days, compared to a 114,000 decrease in the County system. LAC+USC has lost 80,000 Medi-Cal patient days -- a 30 percent drop. A

disproportionate share of this reduction is attributed to obstetrics. Table 5 provides data on average daily census for LAC+USC from 1986 to 1996 according to service (for all payers). Of the total decrease in average daily census of 551 over a 10-year period, 71 are due to the closure of the psychiatric unit due to seismic damage, 16 are due to seismic damage in the pediatrics unit and 259 are due to decreases in births, as a result of competition from private hospitals for Medi-Cal patients. Thus, 346 of the 551 reduction (63 percent) are attributable to earthquake damage and competition for Medi-Cal obstetrics patients.

TABLE 5

AVERAGE DAILY CENSUS ACCORDING TO SERVICE
LAC+USC 1986 - 1996

Year	Total	M/S	OB	Ped	Psych	Births
1986	1397	804	394	78	121	40
1991	1249	742	307	82	118	
1992	1112	677	260	76	101	
1993	1084	659	249	67	110	32
1994	949	626	182	57	110	22
1995	821	564	142	71	45	13
1996	846	599	135	62	50	12
Change 1986-96	-551	-205	-259	-16	-71	-28
Percent	-39.4	-25.5	-65.7	-20.5	-58.7	-70.0

Source: Hospital records. 1986-1995 are calendar years. 1996 is the annual average for the January-June period.

The shift of Medi-Cal patients to private providers reflects increased competition for Medi-Cal patients. Competing for Medi-Cal patients is a relatively new phenomenon. Given Medi-Cal's relatively low payment rates (on average, 50 to 60 percent of allowable costs for hospitals) and the belief by some providers that a high Medi-Cal load is not conducive to attracting private patients, most private hospitals did not try to expand their Medi-Cal patient base. That situation has changed for some hospitals. First, for those hospitals that have always

had a high proportion of Medi-Cal patients, the availability of DSH payments has made Medi-Cal a profitable business line. Second, in the late 1980's, to deal with a shortage of physician and hospital capacity available to Medi-Cal patients in the obstetrics area, Medi-Cal payments to physicians for prenatal care and deliveries were increased to levels comparable to private payers, and the California Medical Assistance Commission (CMAC) began to negotiate separate inpatient rates for obstetrics. This has served to make Medi-Cal obstetrics patients far more desirable than previously, to both hospitals and physicians, especially the latter. Third, the proliferation of managed care in the private sector and advancements in medical science (e.g., arthroscopic and laser surgery) have resulted in a dramatic reduction in inpatient utilization, leaving hospitals with more and more empty beds, with fewer charge-paying purchasers to subsidize them. And fourth, with the movement to Medi-Cal managed care, many hospitals and physicians believe they can manage this population in a cost-effective and profitable manner.

It is far from certain, however, that this line of business will remain profitable or desirable to a large number of private-sector providers in the long run. The LA Model projected inpatient capacity reductions in Los Angeles County of 27 percent by the year 2000, due to fiscal pressures and the need for seismic upgrades. Should closures of this magnitude materialize, occupancy rates of remaining hospitals would exceed 60 percent and competitive pressures for Medi-Cal patients may ease. The County system could then see its market share of Medi-Cal patients increase, assuming it has available capacity.

Capacity reductions due to hospital closures and consolidations due to mergers and acquisitions both serve to increase market leverage of service providers. Recent research has shown that increases in hospital industry concentration (i.e., fewer firms with larger market shares in local markets) are associated with higher prices.[10] Thus, as capacity is reduced and the current pace of consolidations continues, there will be upward pressure on Medi-Cal payment rates and on county-indigent payment rates, should the County contract with private-sector providers. Another possibility is that the capacity reductions and consolidations would only retard further deteriorating market positions of hospitals and physicians; i.e., not improve their positions, only prevent a worsening.

In the short to intermediate term, however, it is likely that the County system will experience a continued reduction in Medi-Cal volume.

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[10]See Zwanziger, J. and G. Melnick, "The Effects of Hospital Competition and the Medicare PPS Program on Hospital Cost Behavior in California," Journal of Health Economics, 7:4 (December, 1988), 301-320; Robinson, J. and H. Luft, "Competition, Regulation and Hospital Costs, 1982 to 1986," Journal of the American Medical Association, 260:18 (1988), 2672-2681; Robinson, J. and C. Phibbs, "An Evaluation of Medicaid Selective Contracting in California," Journal of Health Economics, 8:4 (February, 1990), 437-456; Melnick, G., J. Zwanziger, A. Bamezai and R. Pattison, "The Effects of Market Structure and Bargaining Position on Hospital Prices," Journal of Health Economics, 11:3 (October, 1992), 217-234; and Zaretsky, H. and M. Vaida, "The Impact of Market Competition on Hospital Outpatient Payment Rates," unpublished manuscript, 1993.

The implementation of the two-plan Medi-Cal managed care program later this year should accelerate the County system's reduction in Medi-Cal volume, as private health plans and private providers intensify their competition for Medi-Cal patients, primarily AFDC beneficiaries.[11]

Table A3 provides data on calendar-year 1994 Medi-Cal inpatient payments on behalf of beneficiaries residing in Los Angeles County, identifying those attributed to beneficiaries in the managed-care-mandatory categories. Note that while LAC+USC has the highest market share of both total and mandatory payments, its percentage in the mandatory categories is only 22.6 percent, compared to the county-wide average of 30.6 percent. Its total Medi-Cal market share of payments is 14.4 percent (see box), and its share of mandatory payments is 10.7 percent. The County system's market share of total payments is 34.5 percent, and its market share of mandatory payments is 26.5 percent. Clearly, the County system is the most indispensable component in the area's Medi-Cal delivery system.

The County system's (and LAC+USC's) Medi-Cal patient load, however, is less dependent on the mandatory beneficiaries than is the average hospital's. Thus, if it were unable to successfully compete for managed-care patients, it could still retain at least 80 percent of its Medi-Cal payments. For example, assuming it loses half its mandatory market share, per capita patient days in this population drop by 20 percent, it maintains its non-mandatory market share and per capita patient days in this population drops by 10 percent; LAC+USC would still retain 80 percent of its Medi-Cal patient days.

D. Emergency Room Capacity

The LA Model projects shortages in emergency room capacity in 2000 and 2005 in most of the 10 defined regions, especially should LAC+USC not be replaced. The shortages are greatest in the region in which LAC+USC is located (Region 7), to the extent of 300,000 to 400,000 visits. The projected Region 7 shortage represents approximately 40 percent of current, and 60 percent of projected, emergency-room capacity. Given the importance of LAC+USC to the county-wide trauma system (comprised of 13 hospitals), if downsizing has a major impact on its emergency services capacity (including inpatient services such as intensive care units), increased pressures would be placed on all nearby hospitals with emergency rooms, with particular pressure placed on the trauma hospitals (especially St. Francis, Martin Luther King,

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[11]When Medi-Cal consumers are provided a choice between a public system and mainstream programs, the former may be placed at a disadvantage from a marketing perspective. For example, the implementation of Medicare in 1966 was accompanied by major drops in discharges on behalf of elderly patients from two county hospitals studied in Los Angeles County. See P.A. Glassman, R.M. Bell and R.E. Tranquada, "The 1996 Enactment of Medicare: Its Effect on Discharges from Los Angeles County-Operated Hospitals," American Journal of Public Health, 84:1325-27, August 1994. Of the seven health plans participating in Medi-Cal Geographic Managed Care in Sacramento County, the plan sponsored by University of California Davis Medical Center, the former county hospital, has attracted the lowest market share. See California Medical Assistance Commission, Annual Report to the Legislature, January 1996.

Cedars-Sinai, Children's and Huntington Memorial). Such emergency capabilities serve the entire community, as opposed to primarily Medi-Cal and indigent populations, and thus directly impact tax payers and politically-articulate groups.

Thus, it is vitally important that the planned downsizing enables LAC+USC to maintain its trauma-center designation. This requires capabilities in a wide range of specialty services, including many at the tertiary level.

E. Inpatient Beds

The LA Model predicts substantial excess bed capacity with respect to medical/surgical and ICU in all but one region in 2000 and 2005. Table A4 presents the LA Model assumptions regarding utilization rates according to payer source. Table 6 presents the LA Model midrange excess beds projections, using the model's occupancy standards (approximately 80 percent), and an alternative 60 percent occupancy standard applied to total acute beds.

These excess capacity projections are based on relatively high occupancy standards (e.g., 85 percent in medical/surgical, 80 percent in ICU and 75 percent in obstetrics). It is likely that once average occupancy reaches 60 to 65 percent due to closure of distressed facilities, the balance between purchasers and providers will shift to a sellers' market. That is, at occupancy levels of 60 to 65 percent, many hospitals may be able to operate efficiently enough to believe that empty beds are preferable to beds filled with Medi-Cal patients at payment rates of 50 to 60 percent of average costs, especially non-disproportionate-share hospitals. In that case, LAC+USC would find itself in greater demand by Medi-Cal patients. Setting lower occupancy standards reduces the excess capacity estimates considerably.

In addition, given the past resiliency of hospitals in general, it is possible the projected capacity reductions brought about by fiscal and seismic pressures may not materialize. First, some financially distressed hospitals could be acquired by hospital systems and continue in operation. Second, the first seismic "drop-dead" date under SB 1953 is not until 2008. Some hospitals in need of major seismic retrofitting may be able to postpone decisions on needed retrofitting projects until 2005 or later, and continue to operate as inpatient facilities at least until 2008.

In any event, there is clearly sufficient private bed capacity in LA Model Region 7 and the larger LAC+USC region (in all but obstetrics) to accommodate LAC+USC's entire patient load. (There will likely, however, be a shortage in some tertiary-level specialty services provided by LAC+USC, and there is a critical shortage in emergency capabilities, as discussed above.) While the capacity may be sufficient, it most likely will not be available to patients with no payer source or with a low-paying County payer source; or to certain difficult-to-manage Medi-Cal patients. Under the current indigent care financing system, most county indigent expenditures are covered by disproportionate-share payments flowing through the Medi-Cal program. The only way Los Angeles County can finance its county indigent care program is through these

subsidies, which would not be forthcoming if it implemented a large-scale shift from operating its own hospitals to contracting with other hospitals.

TABLE 6

LOS ANGELES MODEL EXCESS BEDS PROJECTIONS FOR THE LAC+USC REGION MODEL OCCUPANCY STANDARD AND 60 PERCENT STANDARD

Excess Beds 2000 -- Midrange @ Model Occupancy Rates

Region	ICU	M/S	OB	Total
Region 5	46	364	38	447
Region 7	390	1,975	(43)	2,322
Region 8	19	79	15	112
Total	454	2,418	9	2,881

Excess Beds 2000 -- Midrange @ Model and 60 % Occupancy Rates

Region	Available Beds	Surplus @ Model Occ	Needed @ Model Occ	Surplus @ 60% Occ	Needed @ 60% Occ
Region 5	824	447	377	321	503
Region 7	6,498	2,322	4,177	929	5,569
Region 8	1,025	112	913	(192)	1,217
Total	8,347	2,881	5,467	1,058	7,289

V. RESULTS

A. LAC+USC Requirements for the Medically Indigent Based on the LA Model

The LA Model incorporates assumptions that the uninsured population in each region will grow with the total population in that region, and that per-capita inpatient utilization rates on the part of the uninsured will decline by from 10 percent to 28 percent between 1995 and 2000.

Mid-range projections show uninsured patient days in Regions 5, 7 and 8 (the LAC+USC service area) remaining essentially unchanged between 1995 and 2000. Thus, LAC+USC's current county indigent care patient days should remain constant, from a demand perspective. Table 7 presents the LA Model projected uninsured patient days for the LAC+USC region.

TABLE 7

LOS ANGELES MODEL PATIENT DAYS PROJECTIONS
UNINSURED

Uninsured Patient Days 1995						
Region	M/S	ICU	Ped	OB	Psych	Total
Region 5	8,536	727	467	531	210	10,471
Region 7	87,359	7,438	4,780	5,430	1,245	106,252
Region 8	46,474	3,957	2,543	2,889	1,141	57,004
Total	142,369	12,122	7,790	8,850	2,596	173,727
ADC	390	33	21	24	7	476
Uninsured Patient Days 2000						
Region	M/S	ICU	Ped	OB	Psych	Total
Region 5	8,362	759	457	554	205	10,337
Region 7	88,020	7,987	4,816	5,831	2,162	108,816
Region 8	46,019	4,176	2,518	3,049	1,130	56,892
Total	142,401	12,922	7,791	9,434	3,497	176,045
ADC	390	35	21	26	10	482

Region	M/S	ICU	Ped	OB	Psych	Total
Percent Change 1995-2000						
Total	0.02%	6.60%	0.01%	6.60%	34.71%	1.33%

If it is assumed that LAC+USC will be called upon to provide 75 percent of the inpatient care to the indigent uninsured in Regions 5, 7 and 8, then the average daily census of indigents at LAC+USC in the year 2000 would be expected to be 75 percent of 482, or 362. At 90 percent occupancy, that would require a minimum bed complement of 402 for indigent patients.

B. LAC+USC Requirements for the Medically Indigent Based on the Market Share Approach

An alternative set of projections of indigent patient days is presented in Table A5. They were developed as follows:

1. The 1994 Los Angeles County ISD Urban Research Section (URS) estimate of the uninsured population is apportioned among the five county hospital regions according to the distribution of the population below 200 percent of poverty;[12]

2. The uninsured population is then assumed to increase in each region at the same rate as the total county population. (Since the estimate of the county-wide uninsured population is based on Census data, it is likely that a substantial number of undocumented immigrants are not counted. It is thus likely that the total uninsured population, estimated to be 2.53 million in 1994, is closer to 3 million.);

3. The estimated uninsured patient days per 1,000 population rate derived in Table 3 is then used to project total uninsured patient days according to region;

4. The current DHS share of indigent patients of 75 percent is then applied to project indigent patient days for each of the county hospitals, assuming no reduction in per capita use;

5. These patient days are next converted to ADC and then reduced by 10 percent, reflecting our assumptions on reduced inpatient use; and

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[12]See Los Angeles County ISD Urban Research Section, A Demographic Profile of the Population Served by the Department of Health Services: A Report Prepared for the Board of Supervisors, May 2, 1995; and "Data for 1719 Bed Report," memorandum from Larry Colvin to Dr. William Loos, March 26, 1996.

6. These projections are compared to the county indigent patient days reported to OSHPD by each county hospital for the 12-month period ending September 30, 1995.

Note that for all regions except Harbor and High Desert, the projected indigent average daily census exceeds 1995 actual. For the LAC+USC region, the unadjusted 46 ADC excess is 12.8 percent higher than the 1995 actual. Thus, assuming the patient day rate for the uninsured drops by 10 percent, indigent patient days at LAC+USC should be close to their 1995 level (a 1995 ADC of 360 versus a projected 366 ADC). This reduction assumption is based on "spill overs" from changing medical care patterns induced by managed care and changing medical technology. For the system as a whole, the projected unadjusted ADC exceeds actual by 104. A 10 percent utilization reduction brings the projected ADC down to 783, versus the current 767. For LAC+USC, the projected indigent ADC of 366 would require 406 beds, at 90 percent occupancy.

An indigent care ADC of 360 to 400 can be physically accommodated within total ADCs of 536 to 670, as planned for the LAC+USC replacement facility under the 600-bed to 750-bed configurations. The economic viability of a hospital with two thirds of its patient days in the indigent category, however, is questionable. As previously indicated, the county indigent program is dependent on Medi-Cal disproportionate-share payments for most of its support. Currently, over 50 percent of LAC+USC patient days are Medi-Cal sponsored. Under the most likely future scenarios, however, Medi-Cal patient days in the County system and at LAC+USC are likely to continue to fall. Thus, a payer mix emphasizing county indigent patients over Medi-Cal patients is likely to materialize even without the downsizing of LAC+USC.

DHS staff simulated the impact of a shift in inpatient payer mix away from Medi-Cal. Four alternatives, all involving the 600-bed replacement project and all holding the non-Medi-Cal, non-indigent mix at the current level (i.e., 10 percent), were analyzed: (1) a baseline of 55 percent Medi-Cal-35 percent indigent, as budgeted for the 600-bed replacement project; (2) 40 percent Medi-Cal-50 percent indigent; (3) 30 percent Medi-Cal-60 percent indigent; and (4) 20 percent Medi-Cal-70 percent indigent. The results are summarized in Table 8.

The simulations show that these reductions in Medi-Cal percentages result in major funding gaps. In these simulations an assumption is made that the projected shortfalls will not be offset by increases in SB 1255 funding. The purpose of this table, however, is to show the impact on reductions in Medi-Cal inpatient volume, holding all other factors constant, on the economic viability of the DHS system. To the extent additional SB 1255 funds are available, the gaps would be reduced. Dropping the LAC+USC Medi-Cal mix from 55 percent to 40 percent would increase County costs $90.7 million, without a major SB 1255 offset. Further Medi-Cal reductions would involve County cost increases in excess of $100 million annually, without the availability of substantial SB 1255 offsets. While some SB 1255 offsets are possible, their levels are not certain, since such expenditures, which are the product of negotiations between CMAC and disproportionate-share hospitals, are applied against the savings attributed to the Medi-Cal Selective Provider Contracting Program. Since the Program's effectiveness is judged by its

estimated savings, CMAC would not be expected to be overly generous in its SB 1255 allocations.

TABLE 8

SIMULATION OF THE ECONOMIC IMPACT ON THE LOS ANGELES COUNTY HOSPITAL SYSTEM OF ALTERNATIVE MEDI-CAL PATIENT DAY PERCENTAGES

	55% Medi-Cal	40% Medi-Cal	30% Medi-Cal	20% Medi-Cal
Funding Gap Total System Without SB 1255 (Millions)	$450.1	$540.8	$566.8	$592.3

Source: "LAC+USC Medical Center 1516 Replacement Study with Alternate Medi-Cal Mixes of 40 Percent, 30 Percent and 20 Percent," letter from Gary W. Wells to Henry Zaretsky, August 12, 1996.

C. LAC+USC Total Bed Requirements Using Trend Extrapolations

Figure 2 shows the 1991-95 trend in LAC+USC's total and Medi-Cal ADC, and a projection to 2000, based on a trend extrapolation from a logarithmic regression equation. Note the downward trend in total and Medi-Cal patient census. The downward trend in Medi-Cal patient days is likely to continue, for reasons detailed previously. Table 9 provides data on the historical and projected ADC. Note that total patient days are projected to fall 21 percent from the 1995 level, and Medi-Cal patient days are projected to drop 39 percent. These projections assume an unchanged appetite on the part of private hospitals for Medi-Cal patients. Should there be any loss of attractiveness of Medi-Cal admissions to the private hospitals, the declining Medi-Cal census might be rapidly reversed.

While total and Medi-Cal patient days have been falling, indigent patient days have been increasing (see Table A1). The upward trend in county indigent patient days is made possible by the downward trend in Medi-Cal patient days. Patients are admitted to LAC+USC based on medical need and available capacity, without regard to payer source. Thus, the current mix of 52 percent Medi-Cal and 38 percent county indigent reflects medical need and capacity. That approximately 25 percent of transfers from other hospitals are denied reflects capacity constraints. Approximately 70 percent of LAC+USC admissions are through the emergency

room. Of county indigent admissions, approximately one-third are transfers from other hospitals. The major impact of LAC+USC's downsizing, in terms of unsatisfied demand, would be the increasing limitation of capacity to accept the transfers of indigent patients from private hospitals at a time when revenues to compensate private hospitals for county indigents are shrinking.

TABLE 9

HISTORICAL AND PROJECTED AVERAGE DAILY CENSUS
LAC+USC
HISTORICAL -- 1991-1995, PROJECTED -- 1996-2000

Year	Total	Medi-Cal
1991	1129.92	719.45
1992	1130.55	647.16
1993	1057.56	548.39
1994	982.60	530.30
1995	953.77	500.60
1996	*907.94*	*442.35*
1997	*865.45*	*403.29*
1998	*824.95*	*367.68*
1999	*786.35*	*335.21*
2000	*749.56*	*305.61*
2000 % of 1995	78.59%	61.05%

Data Source: Office of Statewide Health Planning and Development Quarterly Reports, 12-Month Periods Ending 9/30/91-9/30/95. Projections generated by a logarithmic trend extrapolation.

An alternative projection was generated using more recent data, and making adjustments

for the impact of seismic problems on recent utilization reductions and assuming the drop in obstetrics volume has "bottomed out." The data used in these projections were presented in Table 5, above. Figure 3 is a graph of historical and projected ADC, holding pediatrics and psychiatric (the seismically-damaged units) at their 1996 levels for projection purposes. The other services were projected through a logarithmic trend extrapolation. Figure 4 also holds constant the 1996 obstetrics ADC. Table 10 provides the historical and projected totals.

In this model, the ADC in the year 2000 varies from 615 to 711, with a midpoint of 663, which would require 737 beds at 90 percent occupancy. Averaging in the projection presented in Table 9 (an ADC of 750), yields a midpoint projection of 692. The advantage of the Table 10 projection, besides adjusting for changes that are not likely to continue, is its inclusion of more recent data -- to the 6-month period ending June 30, 1996, compared to the 12 months ending September 30, 1995 in the previous projection.

D. LAC+USC Total Bed Requirement Using Projected Demand for Critical Emergency Care and Medically Indigent Only

The LA Model estimates a shortage of 145,000 critical level emergency room visits in 2000 if LAC+USC is not replaced. In this method, it is assumed that LAC+USC is replaced and that half of the estimated shortage of critical level emergency room visits are cared for elsewhere (although 85 percent are presently cared for at LAC+USC). If it is assumed that 50 percent of the 72,500 critical level emergency room patients require hospitalization for an average length of stay of five days, that would represent a demand for an annual total of 181,250 patient days (.50 x 72,500 x 5), or an average daily census of 497 from critical emergency visits alone.

If it is further assumed that the 1995 payer mix remains constant (see Table 12), 37.8 percent of those patient days will be attributable to the indigent, 52.4 percent to Medi-Cal and 9.8 percent to all other payers. This mix, based on a 497 average daily census, yields an ADC of 260 for Medi-Cal and 49 for all other payers (an ADC of 309 for non-indigent patients), from critical emergency visits alone. This responds to only 50 percent of the LAC+USC Region needs as calculated by the LA Model for the year 2000. If this non-indigent ADC of 309 is added to the 365 indigent ADC, as previously calculated, a total ADC of 674 results. At 90% occupancy, this represents a need for 748 beds. Table 11 summarizes these results.

E. Payer Mix

Table 12 shows the impact of 536 ADC (i.e., 600 beds at 90 percent occupancy) and 670 ADC (i.e., 750 beds at 89 percent occupancy) constraints on Medi-Cal, county indigent and all other patients, given the current payer mix. In the 536 ADC scenario, if the current payer mix is retained, the county indigent ADC would drop by 158, from 360 to 202, and Medi-Cal would drop from 501 to 281. Under this scenario, transfers would be highly restricted, and some degree of private-sector contracting (for county indigent and Medi-Cal patients) would be necessary. In the 670 ADC scenario, the county indigent ADC would drop by 107, to 253, and Medi-Cal

would drop by 150, to 351, if payer mix remained constant.

Payer mix will not remain constant, however. Reduced demand for Medi-Cal patient days, brought about by increased private-sector competition and improved patient management, would shift the payer mix away from Medi-Cal and toward indigent patients. The mid-point total ADC projection from Table 10 is 663, a 30 percent reduction from 954.

Based on the assumption that: (1) LAC+USC loses half its market share of Medi-Cal mandatory beneficiaries; (2) the Medi-Cal mandatory beneficiary utilization rate falls by 20 percent; (3) LAC+USC loses 10 percent of its market share of non-mandatory beneficiaries; and (4) their utilization rate drops by 10 percent; LAC+USC would lose 27 percent of its Medi-Cal patient days. Under this scenario, the Medi-Cal ADC would drop from the current 501 to 365. This 365 is to be compared with 281 under the 536 total ADC capacity constraint, and 351 under the 670 ADC constraint (see Table 12); and 306 under the simple trend extrapolation presented in Table 9. The mid-point of the trend extrapolation (306) and the 365 estimate based on the market-share and utilization assumptions discussed here is 335.

It must be emphasized that the projection approach employed here is based on the assumption that the essential role of LAC+USC revolves around its trauma, other emergency care and highly-specialized-tertiary-care capabilities, serving the entire community; and its status as the principal (and virtually only) provider of inpatient care to the region's unsponsored, indigent population. In addition, while LAC+USC continues to be a major provider of care to the Medi-Cal population, excess inpatient capacity in the private sector, combined with increasing competition for Medi-Cal patients, suggests that LAC+USC's role as a Medi-Cal provider is not as vital as its other roles. Its future Medi-Cal role may emphasize services to that population that are not accessible elsewhere, and the need to protect Medi-Cal and related DSH revenue to support its other, more vital, functions. Thus, in these projections, the primary objective is to plan for meeting LAC+USC's essential (core) roles, while providing for capacity to generate Medi-Cal and DSH revenue necessary for economic viability.

TABLE 10

HISTORICAL AND PROJECTED AVERAGE DAILY CENSUS
LAC+USC
HISTORICAL -- 1991-96, PROJECTED -- 1997-2000

Year	Ped and Psych at Held at 1996 Levels	Ped, Psych and OB Held at 1996 Levels
1991	1,249	1,249
1992	1,112	1,112
1993	1,084	1,084
1994	949	949
1995	821	821
1996	846	846
1997	*751*	*784*
1998	*702*	*758*
1999	*657*	*734*
2000	*615*	*711*
2000 % of 1995	74.9%	86.6%

Data Source: Hospital Records. Projections based on a logarithmic trend extrapolation: holding constant pediatrics and psychiatric at 1996 levels, and holding constant pediatrics, psychiatric and obstetrics at 1996 levels.

TABLE 11

CALCULATION OF PATIENT DAY DEMAND FROM CRITICAL EMERGENCY VISITS LAC+USC

	Total	Indigent	Medi-Cal	Other
ADC Demand from Critical ER Visits*	497	188	260	49
Non-Critical ER ADC**	177	177	0	0
Total ADC	674	365	260	49

* Assumes one-half the critical ER visits in region (145,000) present at LAC+USC; one-half of these visits result in admission, at a five-day average length of stay; and they are distributed according to the current LAC+USC payer mix.

** Residual indigent ADC based on 365 total indigent estimate.

TABLE 12

1995 INPATIENT PAYER MIX FORCED TO 536 AND 670 AVERAGE DAILY CENSUS LAC+USC

	Medi-Cal	Indigent	Other	Total
1995 Payer Mix %	52.4	37.8	9.8	100
1995 ADC	501	360	93	954
1995 Mix at 536 ADC	*281*	*202*	*53*	*536*
Reduction	220	158	40	418
% Reduction	43.9	43.9	43.9	43.9

	Medi-Cal	Indigent	Other	Total
1995 Mix at 670 ADC	*351*	*253*	*66*	*670*
Reduction	150	107	27	284
% Reduction	29.7	29.7	29.7	29.7

Data Source: OSHPD Quarterly Reports for the 12-month period ending 9/30/95.

F. Consolidation of Projections

Table 13, draws together the various projections discussed here. If utilization remains at the 1995 level, 1,060 beds would be needed for LAC+USC. According to the LA Model, 402 beds would be needed just to accommodate indigent patients in the year 2000. The market-share approach suggests a similar bed requirement for indigent patients. The trend extrapolations have a range of 684 to 833 beds for all patients. The estimate based on the need for critical emergency visits and indigent patients calls for 748 beds. The Harvey Rose projection, which is based on cost effectiveness, not patient demand, suggests 788 beds.

It is of note that there is substantial consistency in the results of the several methods of estimation of bed need. Most projections discussed here point to the need for a facility in the 750 to 800 bed range, after accounting for decreased per-capita utilization rates and loss of Medi-Cal patients to competing providers. The average of the five separate projection methods is 769 beds.

Table 14 compares the targeted ADCs according to service, under both the 600-bed and 750-bed configurations. It also compares these ADCs with 1995-96 levels for all patients and for indigent patients. Note that for all bed types, projected capacity will exceed current indigent volume. Note also the planned increased capacity in ICU, a current bottleneck when attempting to admit emergency patients. Also note the substantially increased ratio of ICU to medical/surgical beds, reflecting the projected results of substituting outpatient for inpatient care, and the impact of that substitution on the acuity level of patients that require hospitalization.

TABLE 13

COMPARISON OF ALTERNATIVE PATIENT DAY AND BED NEED PROJECTIONS FOR LAC+USC

Method and Year	Medi-Cal	Indigent	Other	Total	Beds Needed @ 90% Occ
OSHPD Data 1995	182,718	131,435	33,973	348,126	1,060
L.A. Model - 2000		133,175			402 (Indigent only)
Market Share - 2000		133,438			406 (Indigent only)
Trend (1) - 2000	111,548			273,589	833
Trend (2) - 2000				224,559	684
Trend (3) - 2000				259,438	790
Critical E.R. Needs - 2000	94,975	133,175	17,763	245,913	748
Harvey Rose - 2000					788
Original HFRIP					946

OSHPD Data 1995: 12-Month period ending September 30, 1995.
L.A. Model: Original occupancy assumptions (approximately 80 percent). LAC+USC bed need is only in terms of indigent ADC.
Market Share: Projections presented in Table A5.
Trend (1): Projections presented in Table 9.
Trend (2): Projections presented in Table 10, holding pediatrics and psychiatric at 1996 levels.
Trend (3): Projections presented in Table 10, holding pediatrics, psychiatric and obstetrics at 1996 levels.
Critical E.R. Needs: Extrapolated from L.A. Model critical-level emergency room visit shortage. Projections presented in Table 11.
Harvey Rose: Based on analysis of most cost-effective option.

TABLE 14

ACTUAL AND TARGET AVERAGE DAILY CENSUS UNDER 600 AND 750 BED CONFIGURATIONS AND INDIGENT AVERAGE DAILY CENSUS

Service	1995-96 ADC All Patients	1995-96 ADC Indigent	Target ADC @ 750 Beds	Target ADC @600 Beds
Med/Surg*	591	259	406	319
ICU	51	25	114	98
Pediatrics	56	11	29	19
Pediatric ICU	7	1	8	8
Obstetrics	50	9	27	41
NICU	42	5	43	29
Psychiatric	56	25	43	22
Total	853	334	670	536

* Includes Jail and Burn.
Source: DHS.

VI. RECOMMENDATIONS

A. Recommendations Focusing on LAC+USC

With the general shift in the health industry from inpatient to outpatient care, brought about by the proliferation of managed care, tighter payment constraints and changing medical practice, the role of the hospital is undergoing major change. Inpatient use has dropped considerably, and will continue to drop. This decrease, along with increasingly cost-conscious private purchasers, has resulted in intense competition for Medi-Cal patients, especially in the area of obstetrics. Public hospitals throughout California have recently experienced a drop in their Medi-Cal patient days, as private hospitals have been anxious to fill their empty beds with these patients. At the same time, the implementation of Medi-Cal managed care will give Medi-Cal beneficiaries increased private-sector choices. Moreover, county indigent care programs have become heavily subsidized by Medi-Cal disproportionate-share payments, mainly through

SB 855, and are dependent on these payments. These payments are driven by Medi-Cal patient days, which have been diminishing in county hospitals.

The decreased emphasis on inpatient care necessitates a downsizing in the Los Angeles County hospital system, as facilities are replaced to meet current seismic-safety standards. Replacement plans for LAC+USC have evolved from 946 beds in 1994, to a proposals for a smaller facility currently under consideration. This study attempts to project demand for beds at LAC+USC in the year 2000.

Recognizing the steady decrease in Medi-Cal patient days due to increased competition, and likely further decreases due to implementation of the two-plan Medi-Cal managed-care model in Los Angeles County in late 1996, it appears that 750 to 780 beds would be warranted in the year 2000. This bed complement would enable LAC+USC to maintain its current county indigent inpatient volume, and its role as the hub of the trauma system in Los Angeles County.

From a planning perspective in a world of diminishing resources and decreasing inpatient use, it is preferable to err on the side of less rather than more capacity. If LAC+USC is forced to operate under tight inpatient capacity constraints, patient care will have to be provided as efficiently as possible. If, after the replacement facility becomes operational it is apparent that more capacity is needed, limited private-sector contracting will have to be implemented. This option is preferable to operating an underutilized (or inappropriately utilized) facility. From the private hospitals' perspective, contracting to provide limited indigent care at low payment rates is preferable to treating indigent patients presenting at their emergency rooms without payment.

On the other hand, if the replaced facility cannot accommodate indigent patient care needs and at the same time generate sufficient Medi-Cal volume to support its indigent care costs, the County would be forced to expand capacity or contract with private-sector providers. If funding is not available for such contracting, the County could be put at legal risk. Funding for contracting will not be available under this scenario if funding for the county indigent care program remains dependent on DSH funds driven by Medi-Cal patient days. Further, if considerable industry consolidation occurs, both in terms of capacity reductions and horizontal integration (i.e., mergers), the County's leverage as a purchaser would diminish. Clearly, a replacement facility in the 750-780-bed range would reduce such a risk.

In any event, it would be advantageous for the County to initiate actions to increase revenue to support indigent care and to encourage private-sector providers to expand their indigent care activities. Along these lines, the following initiatives are recommended:

1. Pursue state legislation to earmark new state and local tax revenue derived from conversion of not-for-profit health entities to for-profit status. The potential revenue from this source has not been investigated. It has the advantage of generating ongoing revenue without diverting existing revenues from other sources, since these tax revenues

have not yet been collected or budgeted (this is new money). This indigent care fund could support both private and public providers of indigent care;

2. Pursue state legislation to modify the SB 855 payment formula to give added weight to charity care and county indigent care provided by private hospitals. The major impact of this change would be to provide disproportionate-share hospitals incentives to provide more charity care and to contract with counties to provide indigent care;

3. Pursue state legislation to amend SB 1732 to enable LAC+USC to modify its construction plans and maintain eligibility for Medi-Cal debt-service reimbursement for all its construction and fixed equipment projects, provided the total cost of the modified project is less than that associated with the original 946-bed project;

4. Work with the Local Initiative to enable all plan partners to absorb a minimum level of indigent care (e.g., enroll indigent beneficiaries in proportion to their Medi-Cal enrollees); and

5. Work with the private DSH hospitals to establish a consortium that would allocate a modest amount of indigent care among its members as a proportion of each member's disproportionate-share revenue. This entity could also contract with the County.

Because of the uncertainty surrounding any long-term projections in a volatile environment, DHS should have the ability to contract with private sector providers, as needed, on a limited basis. In this regard, the following recommendations are advanced:

1. If the DSH consortium discussed above is not feasible, limited contracting with one or two private facilities for Medi-Cal and indigent care should be considered. This would provide the contracting entity with sufficient volume to warrant significant price discounts;

2. Such contracting should be in the form of a delegation from CMAC for Medi-Cal patients, so that LAC+USC will be able to count the contracted patient days for purposes of SB 855; and

3. The preferred contracting entity would be USC University Hospital (USCUH) since that hospital has more than 100 vacant beds, is located adjacent to LAC+USC, shares LAC+USC's medical staff and does not yet have a Medi-Cal contract. USCUH's lack of a Medi-Cal contract would make it far easier to convince CMAC of the value of a delegating arrangement to the Medi-Cal program. If the hospital were already contracting, CMAC would have nothing to gain from a delegation arrangement. It would appear to be to both hospitals' advantage to implement such a delegation immediately. This would assure USCUH would not obtain a Medi-Cal contract prior to the LAC+USC replacement facility becoming operational and LAC+USC could immediately benefit

from additional Medi-Cal patient days for SB 855 purposes. This could also enhance DHS's competitive position with respect to attracting enrollees and referrals under the local initiative and commercial plans.

It will also be necessary for DHS to continue its efforts, under the 1115 Waiver, to increase the use of ambulatory care as an alternative to inpatient care and to decrease the average length of stay in its facilities to improve the availability of DHS beds. Aggressive pursuit of Medi-Cal managed care enrollees and patients will be essential, both to preserve revenue sources, and to become a more effective and efficient health-care provider in general.

The alternatives to a LAC+USC replacement of 750-780 beds are as follows:

1. Do not replace it. This is not an acceptable alternative because of the critical and irreplaceable role that LAC+USC plays for all County residents in provision of emergency and trauma services and the inability of DHS to meet even its minimal indigent care needs. This would also leave over $600 million of available capital funding on the table; $426 million in FEMA funds and approximately $200 million (on a present-value basis) in SB 1732 funds;

2. Replace it with 600 beds, or less. Depending on the size of the replacement, this would entail increasing denials of transfers from private hospitals, decreasing Medi-Cal revenues with which to pay for indigent care, and the need to either lease additional inpatient beds for indigent patients or contract with private hospitals for such care. Either alternative would require a revenue source for support that is not now in evidence; or

3. Replace it with the original HFRIP structure of 946 beds. This number exceeds all of the separate calculations of need, and would most likely result in a facility with excess capacity. Moreover, it would be contrary to the provisions in the 1115 waiver.

B. Recommendations Focusing on Systemwide Considerations

The DHS has several principal responsibilities which have been defined by statute, by historical practice and by circumstances existing in the private health care sector and in the economy of Los Angeles County. In addition to its statutory requirement to provide needed health-care services to the medically indigent of the County (a group expected to be expanding significantly as the result of the exclusion of legal immigrants from federally funded welfare programs), the DHS provides a number of irreplaceable services, such as hospital care for jail inmates, burn services, HIV services, and 60 percent of the trauma services and critical proportions of the emergency medical services for all citizens of the County. Any redesign of the DHS services delivery system must provide for these needs, while seeking the most efficient design possible.

Following are a series of guiding principles that are responsive to these considerations:

1. Consolidate and integrate all inpatient tertiary care services, wherever possible. Under any circumstances, it will be essential for the DHS to consolidate and fully coordinate the tertiary-care services in its four remaining acute care hospitals. Tertiary-level services are generally planned on a regional (even multi-county) level. The size of the total patient population no longer justifies unneeded duplication of highly expensive services; nor does the shift away from specialty, and toward primary-care, training programs. Depending on demand levels and the replacement cycles among the individual DHS hospitals, specialized services should be concentrated in as few locations as possible. (And, given its location and relative size, LAC+USC would represent the preferred site for the bulk of the tertiary-level services, assuming services could be relocated among the four hospitals at minimal costs.) This will entail coordination of residency and fellowship training programs among the three Schools of Medicine with which the DHS is affiliated, and can very likely result in reductions in faculty, resident and fellow staffing in some services. The schools should be encouraged to initiate detailed plans for coordination of their programs.

2. Regionalize specialty ambulatory services wherever possible.

3. Distribute primary care capabilities as broadly as possible, while responding carefully to the geographical distribution of disadvantaged populations.

4. Integrate ambulatory and inpatient services as completely as possible, including support functions (e.g., as medical records, information systems), and wherever possible, medical staffing, on a regional basis, in order to form a system that can be responsive to the principles of managed care.

5. Size the capacity of ambulatory and inpatient resources to meet estimated need for the following:

    - The medically indigent population.
    - The emergency and trauma load.
    - A proportion of the Medi-Cal population sufficient to maintain disproportionate share revenues which can support the indigent care burden.

6. Develop a separately identifiable and consistently staffed system, within the DHS system, for Medi-Cal managed care patients who are presented with competing choices and must be attracted to, and retained within, the DHS system.

7. Take steps to move as many of the current Medi-Cal non-mandatory patients as possible to managed care (an optional step for those patients).

8. Limit capital expenditures to the minimum necessary to complete this mission.

9. Be prepared to contract for inpatient services in the private sector for those services and in those geographic areas where revised inpatient capacity proves to be inadequate.

10. Continue to develop new sources of revenue for the system.

11. Give serious consideration to testing new incentives for County personnel to improve DHS' ability to compete with the private sector. Such incentives as pilot capitation programs, withhold pools from managed-care patients to be shared between ambulatory and inpatient services, and functioning enterprise systems should be considered.

12. Actions taken need to be consistent with the 1115 Waiver.

Our review of the HFRIP has focused on the replacement project for the LAC+USC Medical Center. In the process of reviewing other project components of the HFRIP, we have attempted to place these projects into the context of the principles set forth immediately above to guide the DHS system redesign. We reviewed the May 28, 1996 project recommendations of DHS staff with regard to conformance with these principles. Following are our observations:

1. Harbor/UCLA Seismic Upgrade: This will maintain the serviceability of a vital link in the inpatient resources of a substantially-downsized DHS. These inpatient beds will continue to be part of the required base identified in Principles 5, 6 and 7, and the project is compatible with Principle 8. We agree that this project should go forward as part of the basic plan for DHS.

2. Harbor/UCLA Ambulatory Care Center project: This project is not currently consistent with Principles 3 and 8, and should be reconsidered. Its eventual priority will have to depend on a thorough plan for ambulatory care distribution and regionalization, an exercise we have not undertaken. The major question with respect to this project relates to its $41 million estimated cost. Prior to moving ahead with this project, it must be determined that less costly alternatives (i.e., free-standing clinics) are not available and that more geographically accessible locations for ambulatory services are not available.

3. Harbor/UCLA Emergency Room/Surgery Addition: This proposal is responsive to Principle 5, but may not be consistent with Principles 4 and 8. It needs to be reexamined after there is completion of planning to fully integrate all emergency, trauma and specialty services in DHS facilities. The L.A. Model projects a shortage in the Harbor Region of 18,000 critical emergency visits in the year 2000 if this project does not proceed.

4. Harbor/UCLA Emergency Generator: This project appears to provide a needed resource to maintain the independence of Harbor/UCLA in an emergency and to decrease utility

costs. It is consistent with Principles 5 and 8 and we recommend the DHS proceed with the project.

5. High Desert Hospital Replacement and Perinatal Facility: While it is certainly the case that there will continue to be a need for care for indigent patients in the High Desert Region, this is not a cost-effective proposal and is inconsistent with Principle 8. Failure to replace the facility will lead to a need to contract with private providers, and it is acknowledged that the number of private providers capable of contracting with DHS is severely limited in this region. Nevertheless, consistency with the 1115 Waiver-required downsizing of inpatient facilities and Principle 8 lead us to concur with the DHS recommendation to cancel the replacement project and develop an ambulatory-care facility in its place. Our analysis of indigent-care demand for inpatient services (Table A5), shows a projected need to accommodate an average daily census of 14 in County facilities in the year 2000 in the High Desert Region. This level of indigent-care demand does not warrant continued operation of an inpatient facility.

6. Olive View Medical Center (OVMC) Central Plant Replacement: This project is not critical to the maintenance of the role of OVMC and is closer to the category of deferred maintenance, in that the cost of the project must be assessed in light of the long term costs of utilities at the site. We concur with the DHS recommendation that the project be reexamined for other feasible alternatives.

7. Olive View Medical Center Emergency Room and Perinatal Addition: The perinatal addition cannot be justified with Principles 1, 5 and 8, and should thus not be undertaken. We concur with the DHS recommendation that alternative solutions be sought to resolve emergency room space issues. The L.A. Model projects a shortage of 16,000 critical-care emergency visits in the year 2000 for the Olive View Region.

8. Rancho Los Amigos Medical Center (RLAMC) Phase II projects: In view of the pending privatization of RLAMC, the need to comply with inpatient limitations imposed by the 1115 Waiver, and the need to be consistent with Principles 5 and 8, we concur with the recommendation to cancel this project. The private entity selected to operate RLAMC should provide sufficient assurances that referrals from all DHS facilities will be accommodated.

9. King-Drew Medical Center Upper Floor Build-Out: This $30 million project, which would fill in four floors of shelled space with ambulatory care facilities, should be evaluated in light of Principles 3 and 8. The administration is currently investigating private/public partnership possibilities for operating this facility. The project should only be pursued if there are no less costly alternatives for providing ambulatory-care capacityin the KDMLK region.

APPENDIX

TABLE A1 Total and Medi-Cal Patient Days: Non-County and County Hospitals, Los Angeles County

TOTAL AND MEDI-CAL PATIENT DAYS: NON-COUNTY AND COUNTY HOSPITALS

Year	Non County		County		Total		*LAC+USC*	
	TOT-PD	MCL-PD	TOT-PD	MCL-PD	TOT-PD	MCL-PD	*TOT-PD*	*MCL-PD*
1991	5,338,672	929,016	970,721	581,901	6,309,393	1,510,917	***412,422***	***262,600***
1992	5,217,809	1,042,460	968,142	559,638	6,185,951	1,602,098	***412,652***	***236,214***
1993	4,891,126	1,091,271	923,617	516,951	5,814,743	1,608,222	***386,009***	***200,162***
1994	4,792,838	1,119,120	858,868	477,811	5,651,706	1,596,931	***358,648***	***193,560***
1995	4,731,500	1,135,440	857,270	468,297	5,588,770	1,603,737	***348,126***	***182,718***

TOTAL BAD DEBTS, CHARITY AND COUNTY INDIGENT EXPENSES

Year	Non-County	County	Total	*LAC+USC*
1993	$276,565,708	$562,362,677	$838,928,386	***$262,810,032***
1994	$255,915,503	$604,611,867	$860,527,370	***$272,296,537***
1995	$240,183,101	$711,116,536	$951,299,637	***$349,785,635***
	Percent	Percent	Percent	***Percent of County***
1993	32.97%	67.03%	100.00%	***46.73%***
1994	29.74%	70.26%	100.00%	***45.04%***
1995	25.25%	74.75%	100.00%	***49.19%***

Source: OSHPD Quarterly Reports, 12-Month Periods ending 9/30/91-9/30/95

TABLE A2 Indigent and Uncompensated Care Costs: LA County Hospitals By Region -- 1993-95

Line No.	NON-CNTY HOSPITALS	REGION	TOT-EXP	CNTY-IND-EXP	CNTY-IND-INP-EXP	CNTY-IND-OUTP-EXP	LIC-BEDS	AVL-BEDS	TOT-PD	MCL-PD	CNTY-IND-PD	BAD-DEBTS-COST	CHRTY-COST	BD+CH+IND	AVL-OCC
1	1993	HAR	$1,903,162,148	$5,334,384	$4,334,312	$1,000,072	6436	6016	1156714	229625	2306	$46,232,445	$15,993,058	$67,559,886	52.68%
2	1994	HAR	$1,897,521,682	$3,492,165	$2,489,662	$1,002,503	6440	5740	1083626	216776	1223	$48,756,608	$14,390,597	$66,639,370	51.72%
3	1995	HAR	$1,879,402,637	$3,321,656	$2,542,925	$778,732	6365	5790	1062868	210826	857	$35,095,130	$14,223,856	$52,640,642	50.29%
4	1993	HD	$166,872,599	$502,312	$467,689	$34,623	595	532	115498	17305	364	$4,556,240	$114,222	$5,172,774	59.48%
5	1994	HD	$155,655,553	$0	$0	$0	599	544	111772	18909	0	$4,270,477	$29,258	$4,299,735	56.29%
6	1995	HD	$156,264,201	$0	$0	$0	612	560	100277	15453	0	$5,347,068	$79,648	$5,426,716	49.06%
7	***1993***	***LAC***	***$2,522,706,472***	***$9,999,534***	***$7,398,716***	***$2,600,819***	***7867***	***7432***	***1543554***	***422737***	***4986***	***$45,061,307***	***$31,281,623***	***$86,342,464***	***56.90%***
8	***1994***	***LAC***	***$2,513,901,959***	***$3,510,438***	***$2,784,394***	***$726,045***	***7740***	***7338***	***1515975***	***426822***	***1854***	***$40,803,895***	***$33,590,560***	***$77,904,893***	***56.60%***
9	***1995***	***LAC***	***$2,552,977,312***	***$3,383,180***	***$2,514,966***	***$868,214***	***7697***	***7242***	***1518466***	***438515***	***1887***	***$45,239,299***	***$31,856,308***	***$80,478,788***	***57.45%***
10	1993	MLK	$397,210,743	$772,857	$634,966	$137,891	1876	1567	312930	107684	541	$9,721,362	$3,670,571	$14,164,790	54.71%
11	1994	MLK	$431,519,351	$208,099	$99,569	$108,530	1834	1519	328600	114933	84	$9,226,381	$3,004,804	$12,439,283	59.27%
12	1995	MLK	$442,513,596	$141,022	$111,657	$29,365	1834	1522	322424	118654	82	$9,007,777	$5,756,729	$14,905,528	58.04%
13	1993	OV	$1,197,188,491	$6,402,736	$4,873,105	$1,529,631	4874	4701	818456	135272	3211	$26,178,878	$8,677,984	$41,259,599	47.70%
14	1994	OV	$1,217,363,479	$3,665,909	$2,701,023	$964,886	4854	4636	817709	134633	2121	$29,085,066	$9,670,634	$42,421,610	48.32%
15	1995	OV	$1,223,226,373	$3,174,428	$1,912,031	$1,262,397	4790	4607	807453	142581	1185	$25,732,781	$10,092,865	$39,000,074	48.02%
16	1993	TOTAL	$6,187,140,453	$23,011,823	$17,708,788	$5,303,035	21648	20248	3947152	912623	11408	$131,750,231	$59,737,459	$214,499,513	53.41%
17	1994	TOTAL	$6,215,962,024	$10,876,611	$8,074,648	$2,801,964	21467	19777	3857682	912073	5282	$132,142,427	$60,685,853	$203,704,892	53.44%
18	1995	TOTAL	$6,254,384,119	$10,020,287	$7,081,578	$2,938,709	21298	19721	3811488	926029	4011	$120,422,055	$62,009,407	$192,451,749	52.95%
19															
20	CNTY HOSPITALS	REGION	TOT-EXP	CNTY-IND-EXP	CNTY-IND-INP-EXP	CNTY-IND-OUTP-EXP	LIC-BEDS	AVL-BEDS	TOT-PD	MCL-PD	CNTY-IND-PD	BAD-DEBTS-COST	CHRTY-COST	BD+CH+IND	AVL-OCC
21	1993	HAR	$247,753,024	$74,360,411	$44,070,437	$30,289,974	565	478	147488	80954	40203	$1,470,336	$0	$75,830,747	84.53%
22	1994	HAR	$289,143,314	$79,459,196	$48,730,307	$30,728,889	553	493	138677	67968	41763	$1,127,573	$0	$80,586,769	77.07%
23	1995	HAR	$301,893,818	$108,029,217	$68,299,873	$39,729,344	553	483	133822	66629	51496	$995,385	$0	$109,024,602	75.91%
24	1993	HD	$46,797,909	$13,780,353	$6,621,617	$7,158,736	170	135	36839	27441	5274	$1,013,075	$0	$14,793,429	74.76%
25	1994	HD	$50,131,158	$14,593,601	$6,997,087	$7,596,515	170	135	35501	24355	5864	$2,057,882	$0	$16,651,483	72.05%
26	1995	HD	$53,875,238	$16,709,188	$7,952,291	$8,756,898	170	135	34296	23545	5525	$540,154	$0	$17,249,342	69.60%
27	***1993***	***LAC***	***$703,069,156***	***$256,955,618***	***$155,598,455***	***$101,357,162***	***2045***	***1461***	***386009***	***200162***	***113090***	***$5,854,414***	***$0***	***$262,810,032***	***72.39%***
28	***1994***	***LAC***	***$766,645,576***	***$270,008,221***	***$163,986,293***	***$106,021,929***	***2045***	***1404***	***358648***	***193560***	***112039***	***$2,288,316***	***$0***	***$272,296,537***	***69.99%***
29	***1995***	***LAC***	***$814,800,192***	***$346,338,717***	***$213,334,884***	***$133,003,833***	***2045***	***1374***	***348126***	***182718***	***131435***	***$3,446,918***	***$0***	***$349,785,635***	***69.42%***
30	1993	MLK	$484,467,877	$141,351,160	$79,859,407	$61,491,753	1240	1004	254475	142690	60368	$15,735,259	$0	$157,086,419	69.44%
31	1994	MLK	$439,464,122	$175,456,801	$56,784,811	$118,671,989	1240	1007	237863	138159	57670	$4,345,917	$0	$179,802,717	64.71%
32	1995	MLK	$483,748,454	$141,980,280	$84,615,287	$57,364,993	1237	936	250444	147853	57387	$4,937,782	$0	$146,918,063	73.31%
33	1993	OV	$187,295,961	$50,793,752	$23,530,636	$27,263,115	377	286	100628	66500	18556	$1,166,422	$0	$51,960,174	96.40%
34	1994	OV	$207,224,562	$54,725,124	$26,640,588	$28,084,536	377	284	88179	53769	15734	$549,236	$0	$55,274,360	85.07%
35	1995	OV	$215,393,258	$86,802,433	$51,681,979	$35,120,454	377	278	90582	47552	33947	$1,336,462	$0	$88,138,895	89.27%
36	1993	TOTAL	$1,669,383,927	$537,241,294	$309,680,553	$227,560,741	4397	3364	925439	517747	237491	$25,239,507	$0	$562,480,801	75.37%
37	1994	TOTAL	$1,752,608,732	$594,242,943	$303,139,086	$291,103,858	4385	3323	858868	477811	233070	$10,368,924	$0	$604,611,867	70.81%
38	1995	TOTAL	$1,869,710,960	$699,859,835	$425,884,313	$273,975,523	4382	3206	857270	468297	279790	$11,256,701	$0	$711,116,536	73.26%
39															
40	CNTY % OF TOTAL	REGION	TOT-EXP	CNTY-IND-EXP	CNTY-IND-INP-EXP	CNTY-IND-OUTP-EXP	LIC-BEDS	AVL-BEDS	TOT-PD	MCL-PD	CNTY-IND-PD	BAD-DEBTS-COST	CHRTY-COST	BD+CH+IND	
41	1993	HAR	11.52%	93.31%	91.05%	96.80%	8.07%	7.36%	11.31%	26.07%	94.58%	3.08%	0.00%	52.88%	
42	1994	HAR	13.22%	95.79%	95.14%	96.84%	7.91%	7.91%	11.35%	23.87%	97.15%	2.26%	0.00%	54.74%	
43	1995	HAR	13.84%	97.02%	96.41%	98.08%	7.99%	7.70%	11.18%	24.01%	98.36%	2.76%	0.00%	67.44%	
44	1993	HD	21.90%	96.48%	93.40%	99.52%	22.22%	20.24%	24.18%	61.33%	93.54%	18.19%	0.00%	74.09%	
45	1994	HD	24.36%	100.00%	100.00%	100.00%	22.11%	19.88%	24.11%	56.29%	100.00%	32.52%	0.00%	79.48%	
46	1995	HD	25.64%	100.00%	100.00%	100.00%	21.74%	19.42%	25.49%	60.37%	100.00%	9.18%	0.00%	76.07%	
47	***1993***	***LAC***	***21.80%***	***96.25%***	***95.46%***	***97.50%***	***20.63%***	***16.43%***	***20.00%***	***32.13%***	***95.78%***	***11.50%***	***0.00%***	***75.27%***	
48	***1994***	***LAC***	***23.37%***	***98.72%***	***98.33%***	***99.32%***	***20.90%***	***16.06%***	***19.13%***	***31.20%***	***98.37%***	***5.31%***	***0.00%***	***77.75%***	
49	***1995***	***LAC***	***24.19%***	***99.03%***	***98.83%***	***99.35%***	***20.99%***	***15.95%***	***18.65%***	***29.41%***	***98.58%***	***7.08%***	***0.00%***	***81.30%***	
50	1993	MLK	54.95%	99.46%	99.21%	99.78%	39.79%	39.05%	44.85%	56.99%	99.11%	61.81%	0.00%	91.73%	
51	1994	MLK	50.46%	99.88%	99.82%	99.91%	40.34%	39.87%	41.99%	54.59%	99.85%	32.02%	0.00%	93.53%	
52	1995	MLK	52.23%	99.90%	99.87%	99.95%	40.28%	38.08%	43.72%	55.48%	99.86%	35.41%	0.00%	90.79%	
53	1993	OV	13.53%	88.81%	82.84%	94.69%	7.18%	5.73%	10.95%	32.96%	85.25%	4.27%	0.00%	55.74%	
54	1994	OV	14.55%	93.72%	90.79%	96.68%	7.21%	5.77%	9.73%	28.54%	88.12%	1.85%	0.00%	56.58%	
55	1995	OV	14.97%	96.47%	96.43%	96.53%	7.30%	5.69%	10.09%	25.01%	96.63%	4.94%	0.00%	69.32%	
56	1993	TOTAL	21.25%	95.89%	94.59%	97.72%	16.88%	14.25%	18.99%	36.20%	95.42%	16.08%	0.00%	72.39%	
57	1994	TOTAL	21.99%	98.20%	97.41%	99.05%	16.96%	14.39%	18.21%	34.38%	97.78%	7.28%	0.00%	74.80%	
58	1995	TOTAL	23.01%	98.59%	98.36%	98.94%	17.06%	13.98%	18.36%	33.59%	98.59%	8.55%	0.00%	78.70%	

Source: OSHPD Quarterly Reports, 12-month Periods Ending 9/30.

TABLE A3 TOTAL AND MANDATORY INPATIENT MEDI-CAL PAYMENTS: MAJOR HOSPTIALS SERVING LA COUNTY BENEFICIARIES -- CY 1994

HOSPITAL	TOTAL REIMB	MAND-REIMB	CCS-REIMB	CCS-MAND	NET-MAND	%-MAND
LAC USC MED CTR	$173,570,885	$39,213,978	$26,203,248	$13,446,404	$25,767,574	22.59%
RANCHO LOS AMIGOS	$78,776,288	$12,360,294	$16,365,280	$5,784,936	$6,575,358	15.69%
LA CO HARBOR UCLA MED CT	$65,371,458	$18,208,785	$8,046,426	$4,412,556	$13,796,229	27.85%
CHILDRENS HOSPITAL OF LA	$54,186,187	$28,827,051	$40,368,709	$19,561,214	$9,265,838	53.20%
LA CO MARTIN LUTHER KING	$48,349,012	$16,735,193	$11,169,286	$6,998,780	$9,736,413	34.61%
UCLA HOSPITAL & CLINICS	$44,314,955	$14,003,526	$11,344,628	$5,096,220	$8,907,306	31.60%
LA CO OLIVE VIEW MED CTR	$43,506,082	$9,600,238	$4,590,141	$2,251,767	$7,348,471	22.07%
QUEEN OF ANGELS	$41,019,231	$6,809,192	$0	$0	$6,809,192	16.60%
MEMORIAL HOSPITAL MED	$32,985,665	$16,723,732	$15,767,148	$8,312,388	$8,411,345	50.70%
ST FRANCIS MED CTR	$32,794,394	$13,412,907	$5,083,131	$3,148,262	$10,264,645	40.90%
WHITE MEMORIAL MED CTR	$28,540,713	$10,788,390	$5,479,817	$2,854,071	$7,934,318	37.80%
CALIFORNIA MEDICAL CTR	$28,147,058	$10,949,206	$2,336,206	$1,519,941	$9,429,264	38.90%
POMONA VALLEY HOSPITAL	$20,928,138	$9,082,812	$3,871,706	$2,574,161	$6,508,651	43.40%
GARFIELD MEDICAL CENTER	$19,651,684	$7,447,988	$0	$0	$7,447,988	37.90%
HUNTINGTON MEMORIAL HOSP	$18,679,825	$9,339,913	$6,537,939	$4,109,562	$5,230,351	50.00%
ST MARY MEDICAL CENTER	$18,332,132	$6,581,235	$751,617	$458,303	$6,122,932	35.90%
DANIEL FREEMAN MEM HOSP	$15,942,498	$7,046,584	$79,712	$0	$7,046,584	44.20%
CEDARS-SINAI MEDICAL CTR	$14,374,600	$7,331,046	$9,099,122	$6,641,065	$689,981	51.00%
VALLEY PRESBYTERIAN HOSP	$13,403,990	$5,710,100	$2,412,718	$1,568,267	$4,141,833	42.60%
QUEEN OF THE VALLEY HOSP	$12,395,610	$5,206,156	$297,495	$235,517	$4,970,640	42.00%
GLENDALE ADVENTIST MED	$12,261,829	$3,139,028	$907,375	$564,044	$2,574,984	25.60%
ANTELOPE VALLEY DISTRICT	$12,115,583	$6,312,219	$1,211,558	$1,066,171	$5,246,047	52.10%
SAN FERNANDO COMM HOSP	$11,971,435	$610,543	$0	$0	$610,543	5.10%
HOSPITAL OF THE GOOD	$10,116,448	$2,549,345	$2,589,811	$1,153,275	$1,396,070	25.20%
CENTINELA HOSP	$9,729,669	$4,407,540	$1,332,965	$1,060,534	$3,347,006	45.30%
COMM HOSP HUNTINGTON PRK	$9,490,451	$5,181,786	$0	$0	$5,181,786	54.60%
BEVERLY HOSPITAL	$9,190,876	$4,650,583	$0	$0	$4,650,583	50.60%
MEMORIAL HOSP OF GLENDAL	$8,468,474	$1,126,307	$0	$0	$1,126,307	13.30%
CITY OF HOPE NATIONAL	$7,566,775	$1,808,459	$1,422,554	$582,642	$1,225,818	23.90%
GREATER EL MONTE	$7,511,390	$3,034,602	$0	$0	$3,034,602	40.40%
NORTHRIDGE HOSP FOUND.	$7,074,197	$2,461,821	$771,087	$615,455	$1,846,365	34.80%
CHARTER SUBURBAN HOSP	$6,727,509	$2,146,075	$0	$0	$2,146,075	31.90%
COLLEGE HOSP COSTA MESA	$6,568,621	$860,489	$0	$0	$860,489	13.10%
PACIFIC ALLIANCE MED CTR	$5,938,851	$979,910	$0	$0	$979,910	16.50%
ST VINCENT MEDICAL CTR	$5,896,728	$819,645	$937,580	$595,570	$224,076	13.90%
DOWNEY COMMUNITY HOSP	$5,838,596	$2,475,565	$0	$0	$2,475,565	42.40%
SANTA MARTA HOSP & CLIN	$5,764,496	$1,072,196	$0	$0	$1,072,196	18.60%
ST JOSEPH MED CTR	$5,681,708	$2,102,232	$85,226	$0	$2,102,232	37.00%
LONG BEACH COMM HOSP	$5,500,392	$2,464,176	$82,506	$0	$2,464,176	44.80%
MONTEREY PARK HOSPITAL	$5,435,142	$1,206,602	$0	$0	$1,206,602	22.20%
HIGH DESERT HOSPITAL	$5,309,368	$1,352,727	$5,284	$0	$1,352,727	25.48%
TEMPLE HOSPITAL	$4,980,683	$348,648	$0	$0	$348,648	7.00%
BELLFLOWER DOCTORS HOSP	$4,924,655	$374,274	$0	$0	$374,274	7.60%
SOUTH BAY HOSPITAL	$4,886,022	$263,845	($9,772)	($9,772)	$273,617	5.40%
BROTMAN MEDICAL CENTER	$4,641,465	$552,334	$0	$0	$552,334	11.90%
ROBERT F KENNEDY MEDICAL	$4,614,690	$489,157	$18,459	$0	$489,157	10.60%
PRESBYTERIAN INTERCOMM	$4,589,790	$2,607,001	$454,389	$417,671	$2,189,330	56.80%
LOMA LINDA UNIVERSITY	$4,530,809	$2,677,708	$2,469,291	$1,689,992	$987,716	59.10%
LOS ANGELES COMM HOSP	$4,393,389	$2,548,166	$0	$0	$2,548,166	58.00%
TOTAL -- TOP 50 HOSPITALS	$1,006,990,446	$316,001,310	$182,082,643	$96,708,995	$219,292,315	31.38%
ALL OTHER HOSPITALS	$195,207,019	$51,842,554	$8,139,886	$4,169,041	$47,673,513	26.56%
ALL HOSPITALS	$1,202,197,465	$367,843,864	$190,222,529	$100,878,036	$266,965,828	30.60%
LAC SYSTEM TOTAL	$414,883,093	$97,471,215	$66,379,666	$32,894,444	$64,576,772	23.49%
LAC SYSTEM %	34.51%	26.50%	34.90%	32.61%	24.19%	
LAC+USC %	14.44%	10.66%	13.78%	13.33%	9.65%	

SOURCE: MEDI-CAL PROVIDER STATISTICS FILE.

TABLE A4 L.A. Model Midrange Projections 2000: Utilization Assumptions

Managed Care Enrollment Levels: Midpoint

Payer	1995	2000	2000/1995%
Medi-Cal	67.00%	70.00%	104.48%
Uninsured	0.00%	0.00%	0.00%
Medicare	35.00%	52.50%	150.00%
Newly covered	100.00%	100.00%	100.00%
Commercial	57.50%	72.50%	126.09%

Patient Days Per 1,000 in Managed Care Plans: Midpoint

Payer	1995	2000	2000/1995%
Medi-Cal	407.00	369.50	90.79%
Uninsured	0.00	0.00	0.00%
Medicare	1013.00	790.00	77.99%
Newly covered	200.00	200.00	100.00%
Commercial	213.00	152.50	71.60%
County-wide	333.00	262.00	78.68%

Patient Days Per 1,000 in Fee-for-Service Plans: Midpoint

Payer	1995	2000	2000/1995%
Medi-Cal	901.00	732.50	81.30%
Uninsured	156.00	126.00	80.77%
Medicare	3193.00	2576.50	80.69%
Newly covered	0.00	0.00	0.00%
Commercial	640.00	518.00	80.94%
County-wide	658.50	471.00	71.53%

Patient Days per 1,000 in all Plans: Midpoint

Payer	1995	2000	2000/1995%
Medi-Cal	570.02	478.40	83.93%
Uninsured	156.00	126.00	80.77%
Medicare	2430.00	1638.59	67.43%
Newly covered	200.00	200.00	100.00%
Commercial	394.48	253.01	64.14%
County-wide	556.20	393.85	70.81%

TABLE A5 Projections of County System Indigent Patient Days -- 2000

Uninsured apportioned among regions based on 200% poverty estimate. Total based on 1994 percent of total population applied to 2000 PEPS population projection.

Region	Est 1995 200% of Poverty	Percent Distr	2000 Uninsured Estimate	PD/1000	Projected Patient Days	DHS @ 75% SHARE	DHS Projected ADC	***Projected ADC @ 10% Reduction***	DHS 1995 Pat Days OSHPD	1995 ADC OSHPD	Projection Excess Over 1995 OSHPD
HD	81,522	1.77%	49,717	151	7,507	5,630	15	***14***	5,525	15	-1.25
OV	676,642	14.71%	412,652	151	62,310	46,733	128	***115***	33,947	93	22.23
LAC	2,146,703	46.66%	1,309,173	151	197,685	148,264	406	***366***	131,435	360	5.49
HAR	691,640	15.03%	421,799	151	63,692	47,769	131	***118***	51,496	141	-23.30
MLK	1,003,816	21.82%	612,180	151	92,439	69,329	190	***171***	57,387	157	13.72
TOT	4,600,324	100.00%	2,805,521	151	423,634	317,725	870	***783***	279,790	767	16.88

Data source: PEPS 1994 estimates and 2000 projections, and OSHPD Quarterly Report Data for 1995.

FIGURE 1

Study Regions and Health Districts

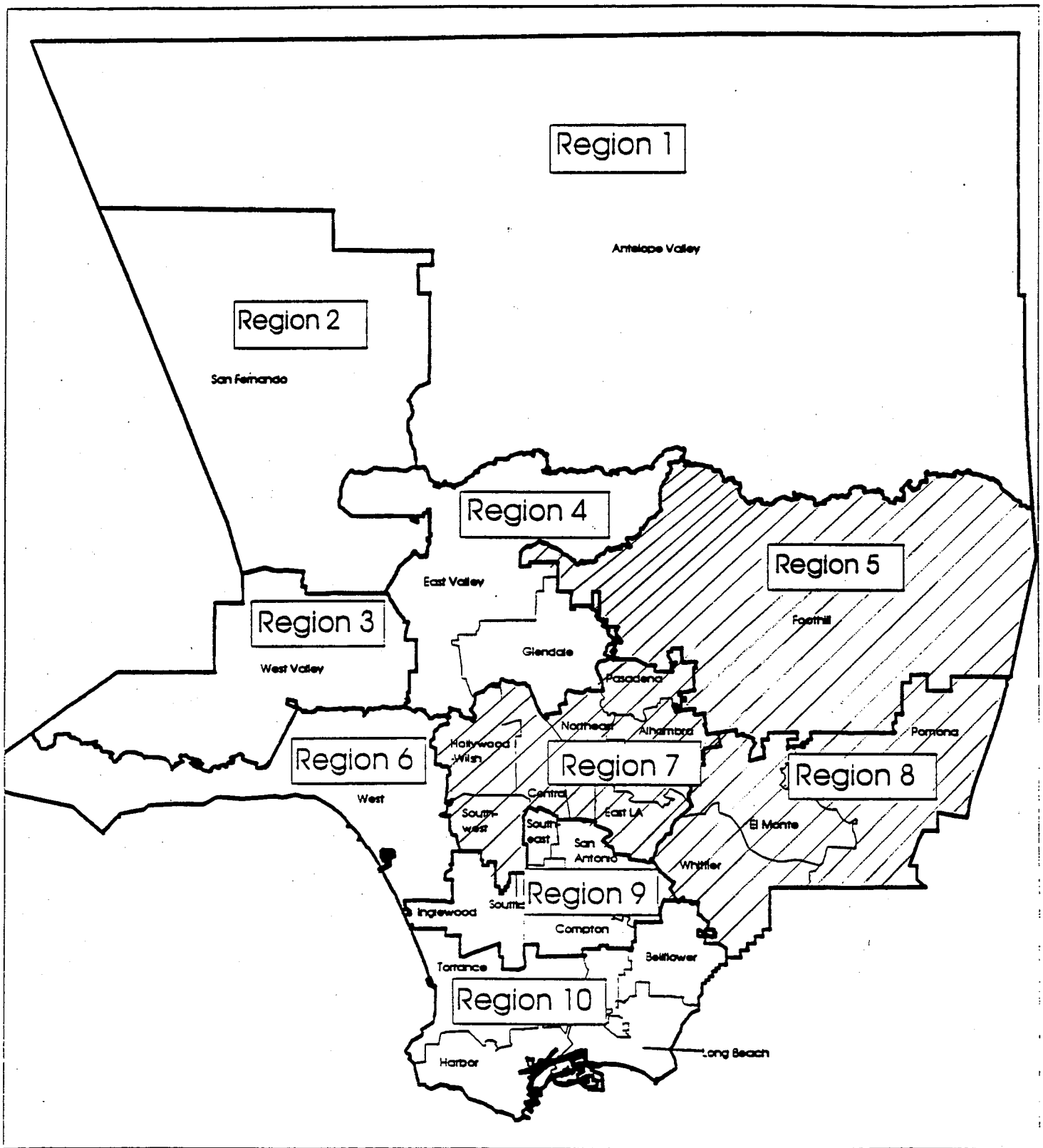
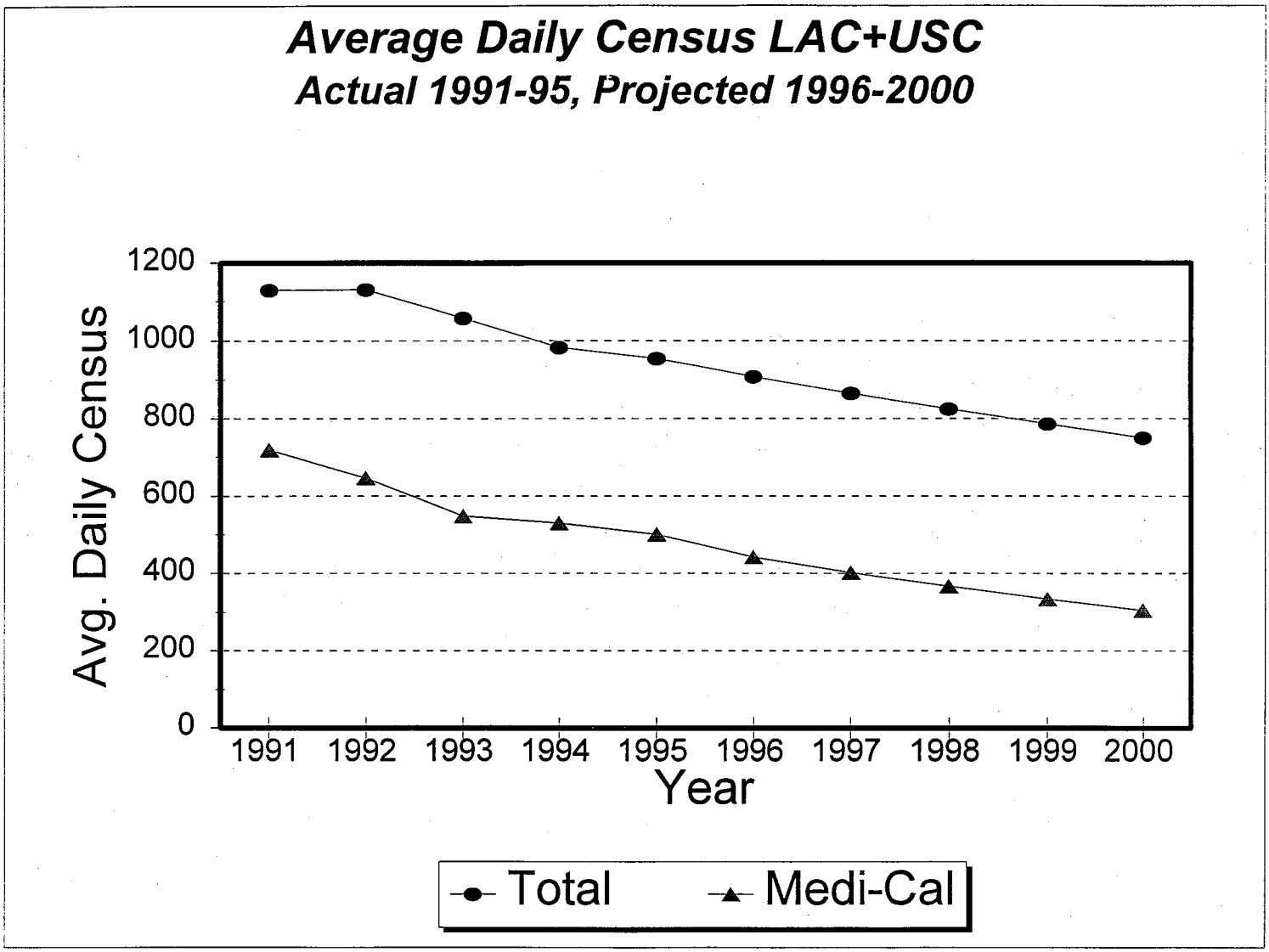
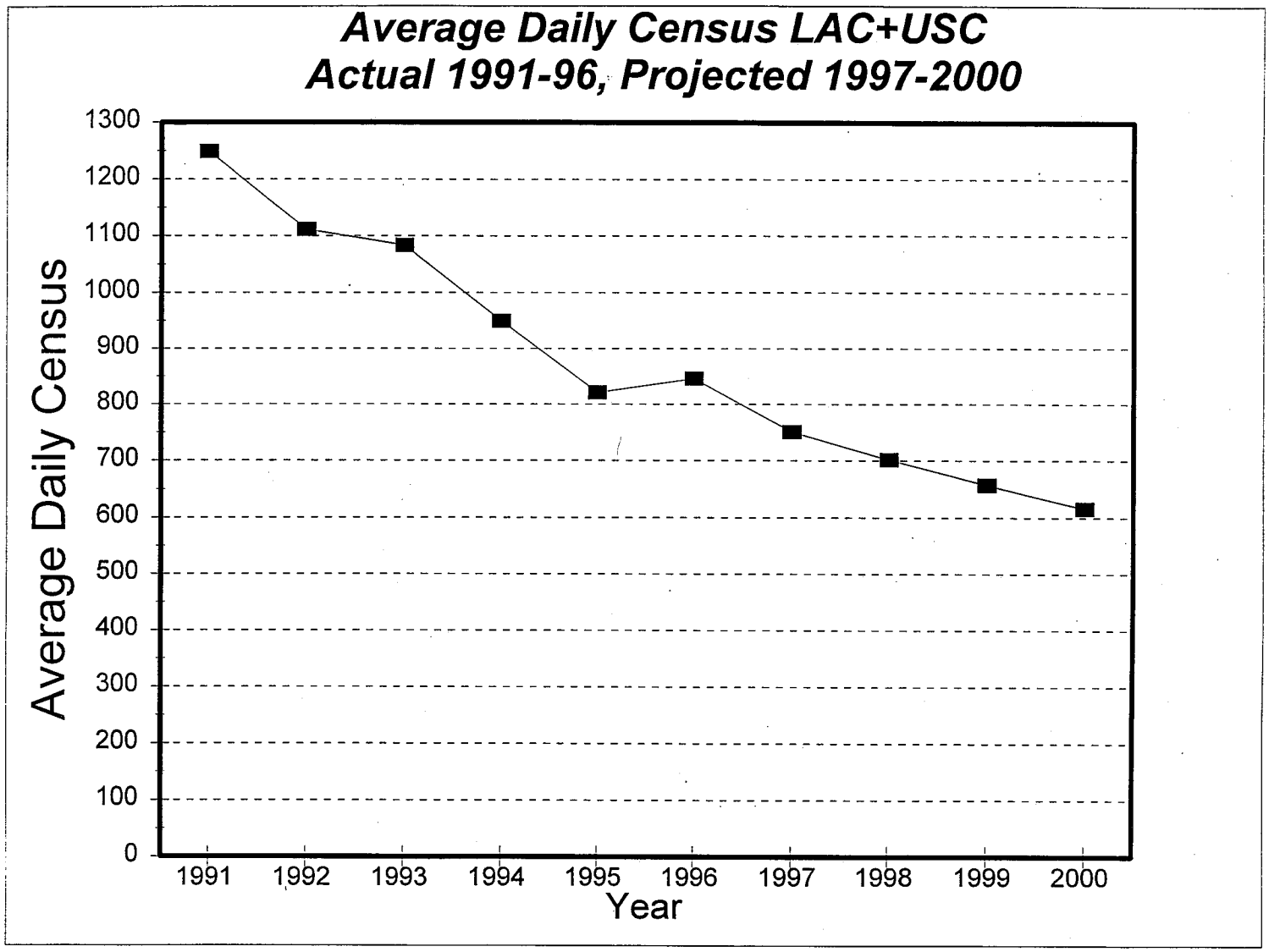


FIGURE 2 Actual and Projected Total and Medi-Cal Average Daily Census: LAC+USC -- 1991-2000



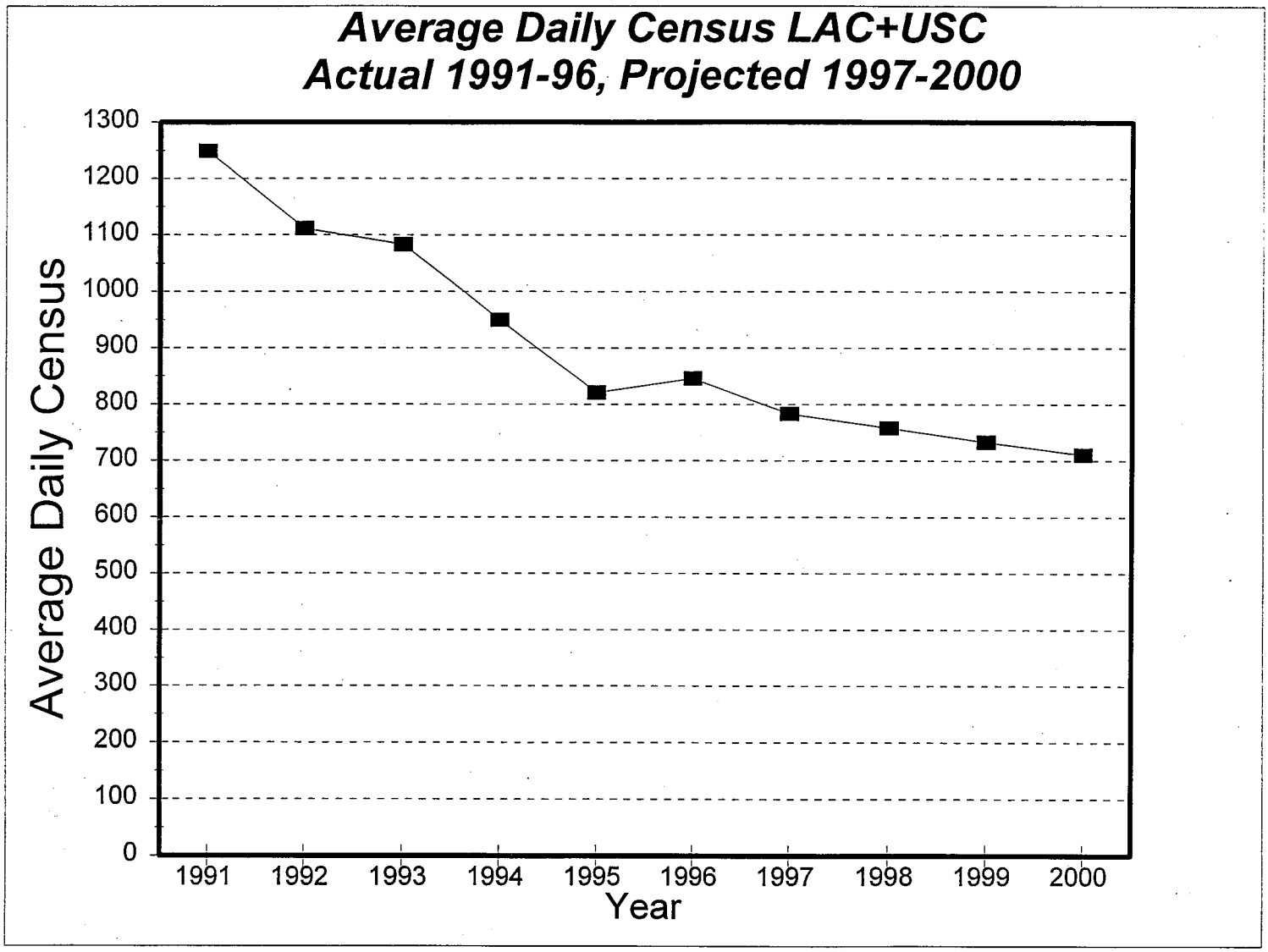
Source OSHPD Quarterly Reports, 12-Month Periods Ending 9/30

FIGURE 3 LAC+USC Actual and Projected Average Daily Census



Holding Pediatrics and Psychiatric at 1996 levels.

FIGURE 4 LAC+USC Actual and Projected Average Daily Census



Holding Pediatrics, Psychiatric and Obstetrics at 1996 levels.