

Master Facility Plan Review

Henry Mayo Newhall Memorial Hospital

*Prepared for
City of Santa Clarita*

May 31, 2007



Contents

- Project Objective
- Approach
- Basis of Analysis
- Timeline of Project Implementation
- Key Conclusions
- Market Demand and Bed Need
- Facility Analysis
 - Hospital Space
 - Medical Office Space



Project Objective

- KSA was retained to assess Henry Mayo Newhall Memorial Hospital master facility plan with respect to
 - Scale of hospital plan
 - Inpatient bed complement
 - Hospital square footage
 - Medical Building plans
 - Appropriate scale with respect to hospital operations, strategic plan and physician recruitment needs



Approach

- Estimated market demand and hospital inpatient bed need
- Assessed inpatient facility master plan scale
 - Assessed whether planned inpatient bed numbers are consistent with the market demand and strategy
 - Compared planned space with amount indicated for future bed complement with current KSA planning parameters
- Assessed planned medical building square footage
 - Estimated the number of physicians accommodated with given areas in the expansion
 - Estimated long term medical staff need given strategic plans and market demand
 - Assessed typical level of medical staff accommodation on a hospital campus
 - Compared typical medical building requirements to the planned medical building square footage



Basis of Analysis

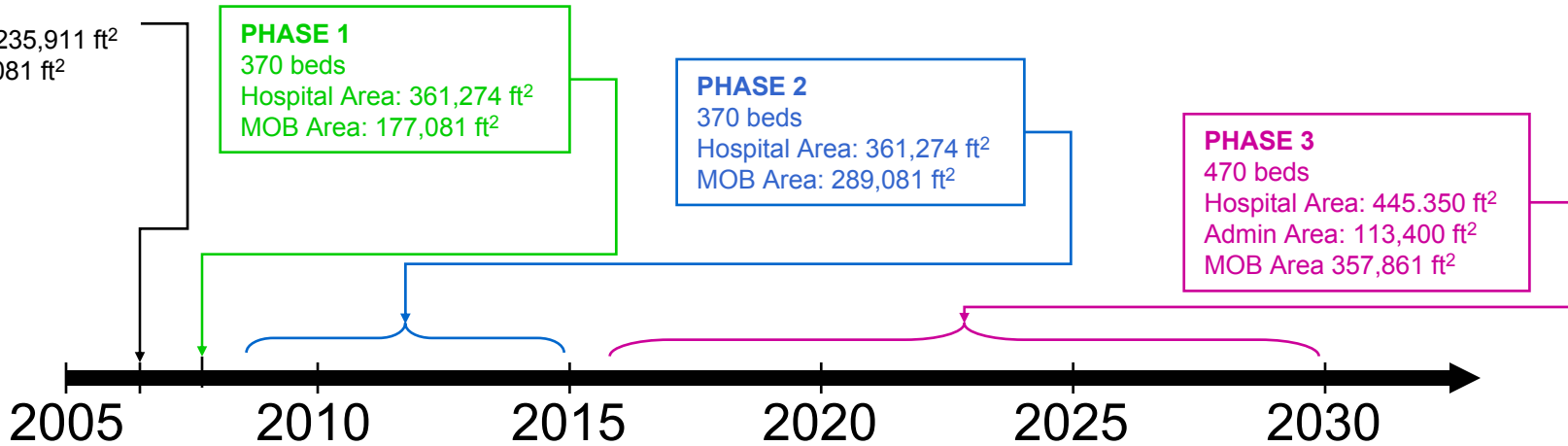
- Henry Mayo Newhall Memorial Hospital (HMNMH) Environmental Impact Report (EIR) of dated September 2006
- HMNMH Master Plan and Architectural Elevations - Exhibit B of Resolution P07-02 - dated February 2006
- HMNMH Demand Analysis – Acute Care and Skilled Nursing Care, dated August 9, 2006
- HMNMH 5-Year Strategic Plan: Goals and Strategies
- HMNMH Bed and Resource Need Assessment dated November 11, 2005
- Responses to Councilman TimBen Boydston questions, document dated March 7, 2007
- Office of Statewide Health Planning and Development (OSHPD)
- Medicare cost reports
- Memo from HMNMH CEO Roger Seaver regarding Centers of Excellence Strategy dated May 21, 2007



Timeline of Project Implementation

CURRENT

230 beds
Hospital area: 235,911 ft²
MOB Area 97,081 ft²

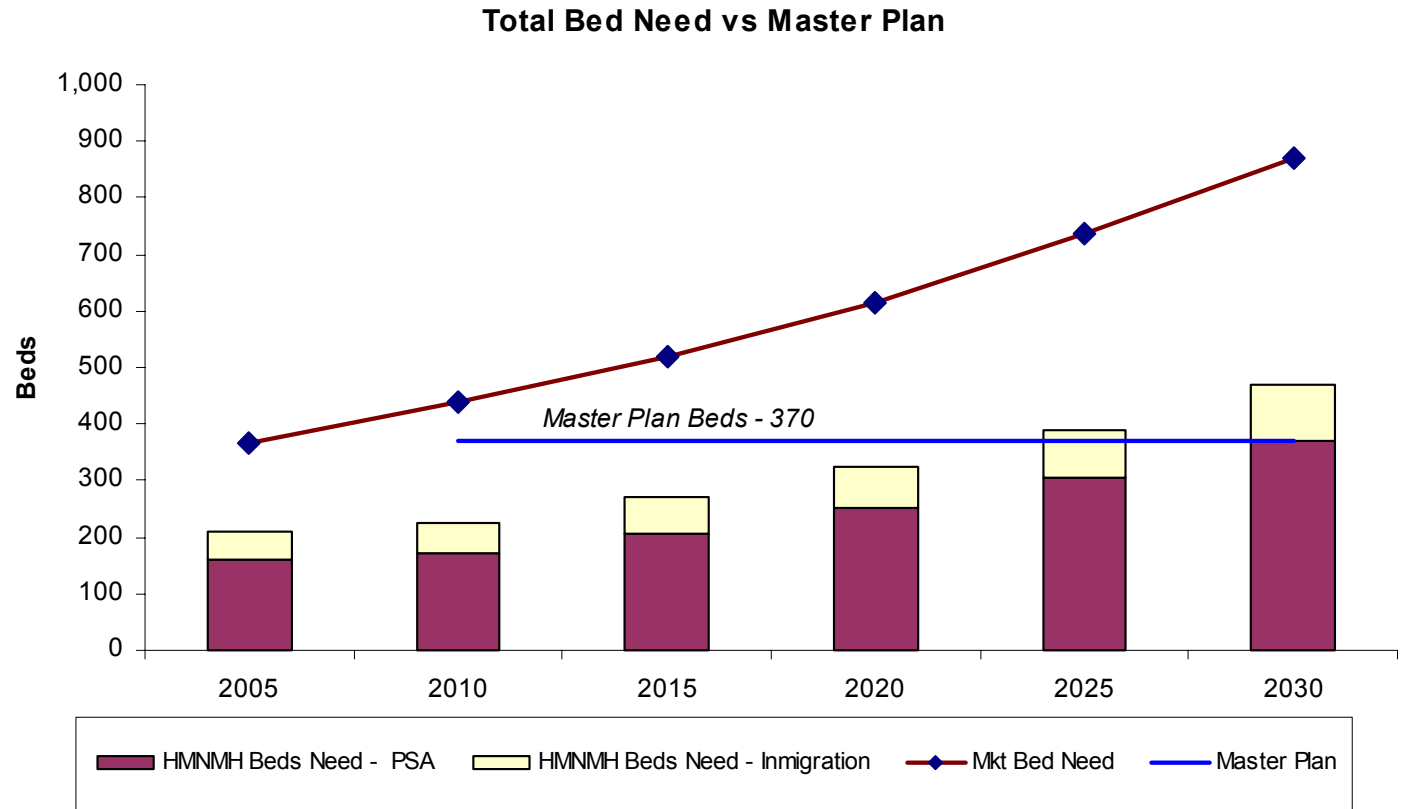


Phase 3
Excluded from
analysis



Market Demand and Bed Need

Conclusion: The proposed number of beds are consistent with long term demand





Assumptions: Market Demand & Bed Need

Basis for Market Bed Need Forecast

- Population & Use Rates
 - Demographics will accelerate demand for hospital services – compound annual growth rate (CAGR) in Primary Service Area (PSA) discharges = 3.2%
 - Forecast 2.3% CAGR in population¹
 - Aging will drive up use rates – growth in 65+ population will add .9 percentage points to annual discharge growth
- Average Length of Stay (ALOS)
 - Average length of stay will increase with aging from 4.6 to 5.0
- Occupancy Target
 - 75% occupancy target assumed
- Acute, Psychiatric, Acute Rehab, Skilled Nursing projected separately

¹California Economic Forecast – Santa Clarita Valley Demographic Outlook – June 25, 2004



Detailed Market Projection and Total PSA Bed Need

	2005	2010	2015	2020	2025	2030
Population						
0-34	120,737	132,491	150,242	170,230	189,825	206,975
35-64	100,720	114,438	125,040	133,259	142,048	154,720
65+	16,014	21,604	27,656	35,944	46,808	59,399
Total	237,471	268,533	302,938	339,433	378,681	421,094
Use Rate						
0-34	59	59	59	59	59	59
35-64	82	82	82	82	82	82
65+	391	391	391	391	391	391
Total	91	96	99	103	109	114
Discharges						
0-34	7,183	7,883	8,939	10,128	11,294	12,314
35-64	8,213	9,331	10,196	10,866	11,583	12,616
65+	6,255	8,438	10,802	14,039	18,282	23,200
Total	21,651	25,652	29,937	35,033	41,159	48,130
Average Length of Stay (ALOS)						
0-34	3.9	3.9	3.9	3.9	3.9	3.9
35-64	4.3	4.3	4.3	4.3	4.3	4.3
65+	5.9	5.9	5.9	5.9	5.9	5.9
Total	4.6	4.7	4.7	4.8	4.9	5.0
Days						
0-34	28,022	30,750	34,870	39,509	44,057	48,037
35-64	35,538	40,378	44,119	47,019	50,120	54,591
65+	36,594	49,368	63,198	82,137	106,963	135,735
Total Days	100,154	120,496	142,187	168,665	201,140	238,363
Mkt Average Daily Census (ADC)	274	330	390	462	551	653
Mkt Bed Need	366	440	519	616	735	871



HMNMH Bed Need

- Services included— acute care, psych, acute rehab
- Market share held constant in rapidly growing market
- Average length of stay (ALOS) held constant by age cohort
- 75% occupancy target
- In-migration capture held constant as % of discharges – conservative estimate – likely to be lower
- Proposed bed increase expected to accommodate maintenance of current market share through 2025

	2005	2010	2015	2020	2025	2030
HMNMH Market Share						
0-34	27%	28%	28%	28%	28%	28%
35-64	40%	40%	40%	40%	40%	40%
65+	56%	52%	52%	52%	52%	52%
Total	42%	40%	41%	41%	42%	43%
HMNMH PSA Discharges						
0-34	1,990	2,175	2,467	2,795	3,117	3,398
35-64	3,349	3,698	4,041	4,306	4,590	5,000
65+	3,686	4,418	5,656	7,351	9,572	12,147
Total	9,025	10,291	12,163	14,452	17,279	20,545
HMNMH % Inmigration						
0-34	31%	31%	31%	31%	31%	31%
35-64	38%	38%	38%	38%	38%	38%
65+	20%	20%	20%	20%	20%	20%
Total						
HMNMH Inmigration						
0-34	626	684	776	879	980	1,068
35-64	1,264	1,409	1,540	1,641	1,749	1,905
65+	747	885	1,133	1,473	1,918	2,434
Total	2,638	2,979	3,449	3,993	4,648	5,408
HMNMH Total Discharges						
0-34	2,617	2,859	3,242	3,674	4,097	4,467
35-64	4,613	5,107	5,581	5,947	6,340	6,905
65+	4,433	5,303	6,789	8,824	11,491	14,582
Total	11,663	13,270	15,612	18,445	21,927	25,954
HMNMH ALOS						
0-34	3.1	3.1	3.1	3.1	3.1	3.1
35-64	4.5	4.4	4.4	4.4	4.4	4.4
65+	6.3	5.8	5.8	5.8	5.8	5.8
Total	4.9	4.7	4.7	4.8	4.9	5.0
HMNMH Days						
0-34	8,167	8,816	9,997	11,327	12,631	13,772
35-64	20,942	22,316	24,384	25,987	27,701	30,172
65+	28,073	30,794	39,420	51,233	66,718	84,665
Total	57,182	61,926	73,801	88,547	107,050	128,609
HMNMH ADC						
0-34	157	170	202	243	293	352
Total HMNMH Bed Need	209	226	270	323	391	470
HMNMH Beds Need - PSA						
0-34	160	172	208	250	305	369
HMNMH Beds Need - Inmigration						
0-34	49	54	62	73	86	101
Total	209	226	270	323	391	470

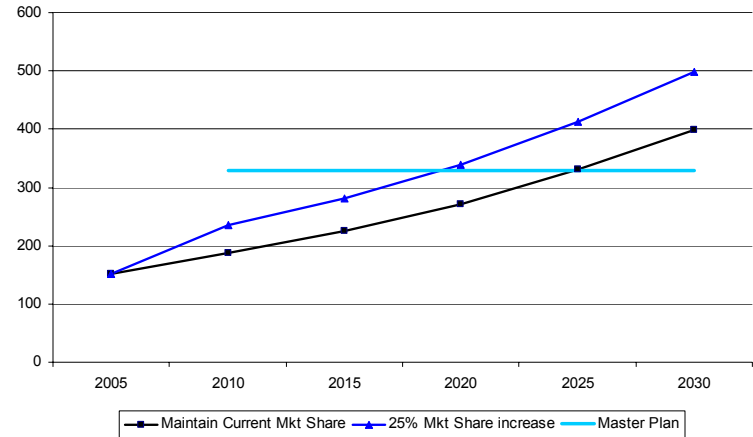


Bed Need Sensitivity – Market Share

Acute Care

- Proposed bed complement adequate through 2025 if market share held constant
- With 25% market share growth, proposed beds are at capacity by 2020

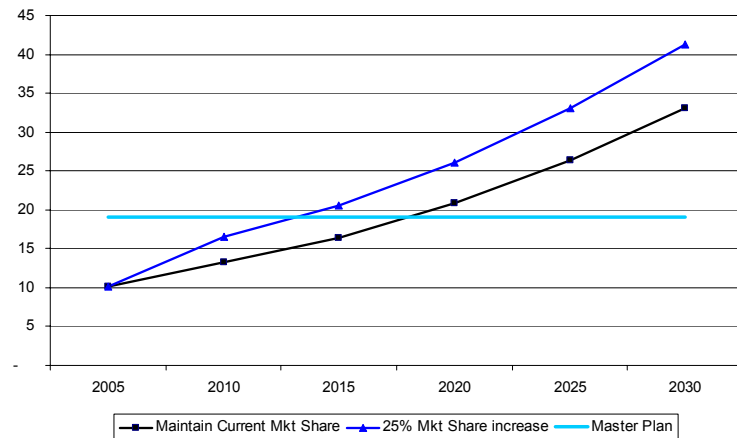
Acute Care Bed Need Sensitivity



Acute Rehab

- Bed complement adequate through 2017 at current market share levels
- Need outstrips current complement by approximately 2012 with 25% gain in market share

Acute Rehab Bed Need Sensitivity





Hospital Space Analysis

Comparison with other new hospital facilities:

Medical Center	Building Gross Area	Total Beds	Area per Bed
Greenfield' Community Hospital, Northern CA	340,000	150	2,267
Greenfield' Community Hospital, Northern CA	430,000	225	1,911
Urban Hospital, Los Angeles, CA	912,000	448	2,036
University Hospital, Northern CA	854,100	450	1,898
University Hospital, Southern CA	436,884	191	2,287
University Hospital, Southern CA	1,050,000	520	2,019
Urban Community Hospital, Northern CA	433,665	200	2,168
County Hospital, Northern CA	245,474	154	1,594
Private System Hospital, Southern CA	307,533	146	2,106
Private System Hospital, Southern CA	674,152	350	1,926
New Tower, Providence St. Joseph, Burbank	200,000	128	1,563
Average			1,986
<i>Henry Mayo Newhall Memorial Hospital</i>			
<i>Existing</i>	<i>235,911</i>	<i>230</i>	<i>1,026</i>
<i>Master Plan Project</i>	<i>361,274</i>	<i>370</i>	<i>976</i>

Sources: KSA Programs, Medicare Cost Report, EIR



Hospital Space Analysis

Conclusions:

- The existing inpatient facilities are considerably undersized compared to similar sized contemporary hospitals
- Pressure to update and expand hospital will increase over time:
 - To meet population growth in the area
 - To bring hospital operations and space to a contemporary standards of practice
 - To meet present and future competitive threats
 - Facilitate recruitment of new physicians
- Must provide flexibility for growth of inpatient facilities to meet future demand



Medical Building Analysis – Planned Capacity

¹ Medical Group Management Association Cost Survey for Multispecialty Practices 2005 Report based on 2004 Data; assumes no major ancillaries located in physician offices

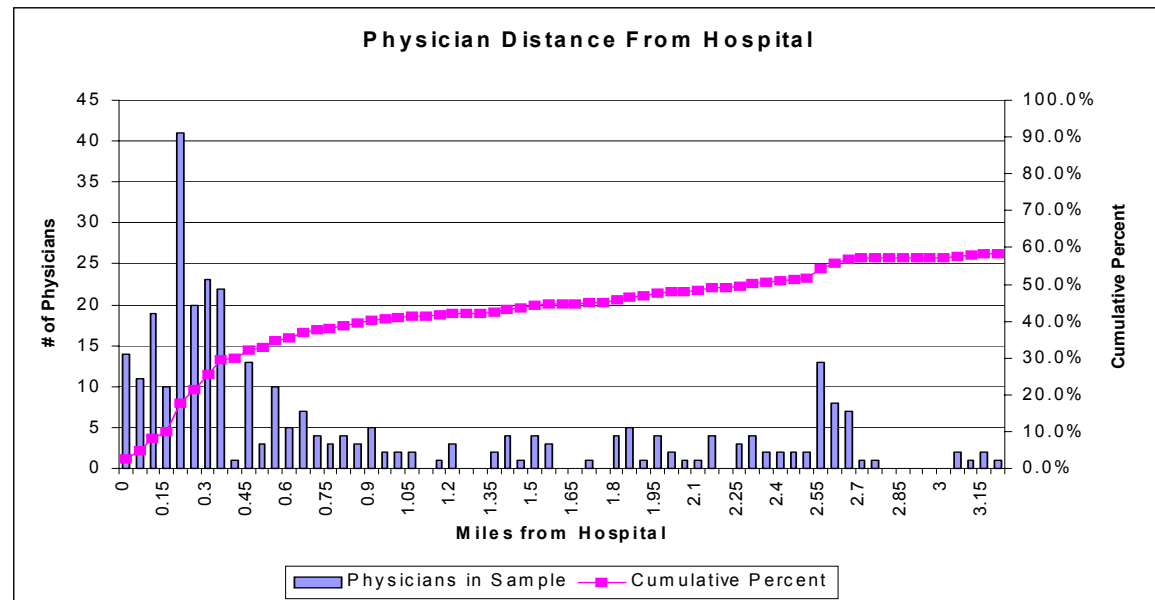
² Based on Architectural Space Program to accommodate Administration, Classrooms, Foundation, Finance, Education, Employee Health, Human Resources, Health Information, and IT department (SWA#030530)

³ Based on Memo from Roger Seaver, HMNMH CEO dated May 21, 2007 describing Center of Excellence plans – total square footage identified in letter reduced by the estimated amount that would be occupied by the associated private physician practices. Estimate based on KSA analysis. Our understanding is that the space for these programs may be leased by the hospital, the physicians or through some form of partnership.

- Master Plan results in 289,000 cumulative square feet of medical building space. This area includes uses such as medical practice, hospital administration and clinical centers of excellence.
- KSA's analysis was directed at whether, after accounting for the hospital's use of space in the medical buildings, the remaining space was appropriate for the expected needs and typical practice patterns of the physician community
- Typical full time physician office occupies 1,600 to 2,200 gross square feet¹
- If all medical building space was used to accommodate typical physician practices then approximately 93 to 152 physician practices would be accommodated at 1,900 feet per practice. This is higher than projected need for physician clinical space.
- However, Henry Mayo Newhall management has proposed the following additional planning assumptions:
 - At least 89,000 square feet of medical building space will be used by the hospital. KSA assumes for analysis purposes that 60% is taken at the completion of MOB 1 and 100% at completion of remaining buildings.²
 - By our analysis approximately 61,400 square may be used to support Center of Excellence strategies in cardiac services, orthopedic & spine, cancer center, women's services and imaging³.
- Depending on the amount of space used by the hospital to accommodate administration functions and the Centers of Excellence, the amount of remaining space is either deficient, adequate or excessive with respect to the number of private physician practices accommodated compared to the typical proportion of medical staff accommodated on the campus.

Medical Building Space Analysis – Typical Location of Medical Staff

- To understand the expected demand for physician practice space on campus, KSA assessed the typical share of a medical staff that is located on or about its hospital campus
- KSA analyzed a random sample of 540 physicians on the medical staff at nine comparable hospitals with respect to distance from hospital
 - Approximately 10% of sample physicians were within 0.10 mile of the hospital
 - Approximately 21% were within 0.25 mile of the hospital
 - Approximately 25% were within 0.30 mile of the hospital
- Currently, approximately 20% of HMNMH medical staff are on campus





Medical Building Space Analysis – Physician Demand

Incremental Acute Care Discharges by...		
	<u>2020</u>	<u>2025</u>
Flat Market Share	6,787	10,001
25% Increase	10,952	14,969
Incremental Physician Need by...¹		
	<u>2020</u>	<u>2025</u>
Flat Market Share	57	83
25% Increase	91	125
Total Medical Staff...		
	<u>2020</u>	<u>2025</u>
Flat Market Share	349	375
25% Increase	383	417
Number on Campus...²		
	<u>2020</u>	<u>2025</u>
<i>Flat Market Share</i>		
20% on Campus	70	75
25% on Campus	87	94
<i>Market Share up 25%</i>		
20% on Campus	77	83
25% on Campus	96	104

- If inpatient bed capacity were not an issue, accommodating 20%-25% of the medical staff required to maintain or increase market share on campus equates to approximately:
 - 70-96 physicians by 2020
 - 75-104 physicians by 2025
- However – 370 beds does not accommodate:
 - Maintaining market share beyond 2025
 - Increasing market share 25% beyond 2020
- Thus approximately 70 to 96 physicians would typically be accommodated on campus of HMNMH planned size

¹ Based on 120 annual discharges per recruited physician after ramp-up

² Based on 25% increase in market share by age cohort (results in overall increase from 40% to 53% due to varying growth of age cohorts)

NOTE: red zone in table indicates a non-viable market scenario – the hospital cannot accommodate a 25% increase in market share in 2025 based on number of planned beds – the number of physicians associated can be accommodated on campus under the facility plan

Medical Building Space Analysis – Physician Demand vs Hospital Needs vs Space

	Phase 1	Phase 2
MOB Square Footage	177,081	289,081
Hospital Usage		
Administrative/Hospital Use	53,400	89,000
Net Available for Physicians	123,681	200,081

Physicians Accommodated

@ 1,600 SF per Physician	77	125
@ 1,900 SF per Physician	65	105
@ 2,200 SF per Physician	56	91

Physician Demand @ 22.5% of Medical Staff

Flat market Share	78	84
Space Surplus/(Shortage) ¹	(25,329)	39,622

Sensitivity Analysis – Master Plan

		Surplus (Shortage) Medical Building Square Feet ¹			
		% Med Staff on Site -->	20%	23%	25%
Non-physician office space ²	90,000		56,450	38,622	20,793
	100,000		46,450	28,622	10,793
	110,000		36,450	18,622	793
	120,000		26,450	8,622	(9,207)
	130,000		16,450	(1,378)	(19,207)
	140,000		6,450	(11,378)	(29,207)
	150,000		(3,550)	(21,378)	(39,207)

¹ Space beyond what is needed to accommodate typical share of medical staff and non-physician clinic services

² Space in medical buildings used by hospital for administration or Centers of Excellence

³As described in Architectural Space Program SWA#030530; 60% of the 89,000 at the completion of MOB 1 and the remainder at the completion of MOB 2

- If the hospital uses only the 89,000 square feet for administrative functions³ there is inadequate space (25,329 square foot shortage) to accommodate total physician demand at the completion of MOB 1 but excess space (39,622 square feet) at the completion of the project.
- If the hospital also uses an additional 61,000 to fully execute the centers of excellence strategic initiatives then there is inadequate space to accommodate the physician demand in the Master Plan.
- However, a combination of physician accommodation and hospital use of medical building space appears feasible and appropriate – for instance in bottom table – if hospital uses 120,000 square feet 23% of physicians can be located on campus by the end of Master Plan completion.
- It will require detailed facility planning to identify the optimal balance of physician office space and other hospital/clinical program space to meet the hospital's strategic goals.



Medical Office Space Analysis

Key Conclusion: The planned medical building space is appropriate given the growth in the market, the proposed scale of the hospital and the proposed clinical centers of excellence strategic plans.

Important Considerations:

- The Medical Building may provide strategic value to HMNMH
 - The bed complement of the master plan will incent development of a new hospital as a significant portion of local demand is not accommodated
 - The campus-based medical building may assist the hospital with physician recruitment in face of competition
- The hospital's Centers of Excellence initiatives as described by management are a common and integral part of a hospital's strategic plan. In our experience as hospital strategic planners, the ability to successfully execute these initiatives is an important part of a hospital's success.
- If the hospital is going to use the proposed medical buildings to accommodate strategic initiatives such as a cancer center or imaging center in pursuit of a centers of excellence strategy, the facility plans need to accommodate them early as once the buildings are built it will be expensive to renovate to accommodate these very specific purposes.



Key Conclusions

- Scale of Master Plan is **appropriate with respect to the number of inpatient beds** given expected market demand and hospital strategic goals through 2025.
- The facility expansion plan **does not provide enough hospital space for inpatient services** given the number of inpatient beds and current planning standards. If this is not addressed adequately the competitiveness of the hospital may be impacted.
- The planned **medical building space is appropriate** given the strategic plans of the organization:
 - Projected growth and increasing competition will require a larger medical staff on campus. A medical building will ease their recruitment.
 - Relocating administrative services out of more expensive hospital space is an appropriate and common strategy
 - Centers of Excellence initiatives are an important strategy component in today's competitive healthcare market

Appendices



Comparable Hospitals

Comparable hospitals selected with consideration to size, scope of services and location demographics.

Hospital	# Licensed Beds	# Available Beds	Medical Staff Size	Median Distance	Estimated # Medical Staff within 10th of a mile	% within 1/10 of Mile	Key Services	Median HH Income	Owner Occupied Housing
TORRANCE MEMORIAL MEDICAL CENTER	377	355	812	2.4	81	10%	Burn Center, Cancer Care, Cardiac Rehab, ER, Endovascular Surgery, Obstetrics, Orthopedics, Surgery, Wound Care	\$56,489	54.50%
EL CAMINO HOSPITAL	395	334	672	1.9	34	5%	Cancer Care, Dialysis, ER, Cardiology and Vascular Care, Obstetrics, Orthopedics, Stroke Center, Surgery	\$69,366	39.80%
EDEN MEDICAL CENTER	356	356	342	4.3	86	25%	Cancer Care, Obstetrics, Neurological Care, Trauma Center	\$64,874	68.30%
DOCTORS MEDICAL CENTER	396	389	370	1.9	86	23%	Cancer Care, Cardiology, ER, Neurological Services, Trauma	\$40,394	57.0%
SANTA ROSA MEMORIAL HOSPITAL	365	365	310	0.4	16	5%	Cancer Care, Cardiology, ER, Orthopedics, Neurological Services, Trauma	\$51,454	56.8%
MISSION HOSPITAL REGIONAL MEDICAL CENTER	340	340	229	0.3	4	2%	Cancer Care, Cardiology, Obstetrics, Orthopedics/Spine, Stroke, Trauma	\$75,184	81.6%
FOUNTAIN VALLEY RGNL HOSP & MED CTR	400	400	505	3.6	0	0%	Cancer Care, Cardiology, ER, Neurological Services, Obstetrics, Orthopedics/Spine, Pediatrics	\$69,710	76.4%
GOOD SAMARITAN HOSPITAL - SAN JOSE	429	317	551	2.5	63	12%	Cancer Care, Cardiology, ER, Neurological Services, Obstetrics, Orthopedics/Spine, Pediatrics	\$79,008	73.0%
JOHN MUIR MEDICAL CENTER - WALNUT CREEK	324	324	934	6.2	93	10%	Cancer Care, Cardiology, ER, Neurological Services, Obstetrics, Orthopedics/Spine, Pediatrics	\$85,479	83.0%
HENRY MAYO NEWHALL	370 (Planned)	370 (Planned)	293	2.0	61	21%		\$76,127	73.0%