

MEDICAL SERVICES

7.1 HEALTH SYSTEM

7.1.1 *Provide a graphical summary of all the health data of a) your city and b) your state/region, over the last ten years, concerning: birth rate, morbidity rate (number of ill persons per capita), death rate, age distribution, infant mortality rate and hospitalization rate per capita. If applicable, briefly explain any epidemiological problems over the last ten years.*

The San Francisco Bay Area's mix of internationally acclaimed medical services and community-oriented health organizations, along with its abundant economic resources and moderate climate, yields healthy vital statistics. Compared to similar regions of the United States and other industrialized nations of the world, birth rates here are moderate, death and infant mortality rates are low, and hospitalizations per capita are low. Quality medical care is available to all who need it regardless of their ability to pay.

The age distribution of residents here is balanced across the spectrum. The world-class academic institutions in the San Francisco Bay Area, most notably Stanford University, the University of California campuses and the California State schools draw a large population of young people. Diverse culture, vibrant industry and overall quality of life keep them here and attract new families, throughout their working and childbearing years. And upon retirement, a strong sense of community, the availability of medical care and our moderate climate make the San Francisco Bay Area home for life.

Vital statistics over the past ten years for the counties that compose the San Francisco Bay Area, plus two adjacent counties – Monterey and Yolo – where outlying venues are located, and the state are presented in Table 7.1.1a. Age distribution data for the bid region and the state are provided in Table 7.1.1b.

Table 7.1.1a Bay Area Vital Statistics (annualized)

COUNTY	POPULATION	BIRTH RATE ¹	DEATH RATE ¹	INFANT MORTALITY ²	HOSPITAL-IZATIONS ¹	AIDS ³	MEASLES ³	TUBERCULOSIS ³	SYPHILIS ³
Alameda	1,428,300	14.7	6.9	5.1	93.6	22.81	0.19	16.45	0.69
Contra Costa	916,900	13.6	7.3	5.9	76.6	10.82	0.22	12.20	0
Marin	245,000	10.5	7.6	2.3	71.1	24.81	0	6.58	0.14
Monterey	384,100	17.7	6.0	6.2	77.2	11.74	0.09	11.38	0.62
Napa	122,600	12.0	10.4	3.4	97.0	6.05	0	5.22	0
Sacramento	1,166,100	15.2	7.5	6.1	114.9	13.43	0.03	11.74	0.32
San Francisco	789,500	10.3	8.4	5.0	142.9	103.51	0.17	30.49	4.93
San Mateo	721,400	14.1	6.9	4.3	76.2	9.55	0.09	12.04	0.37
Santa Clara	1,701,400	15.7	5.3	3.8	86.8	9.85	0	16.07	0.22
Santa Cruz	250,800	13.6	6.7	5.8	72.1	7.82	0.27	6.77	0.27
Yolo	156,000	13.8	6.7	3.3	18.3	5.17	0	7.96	0
Regional Total	7,882,100	13.7⁴	7.2⁴	4.7⁴					
California	33,494,000	15.6	6.7	5.7		17.31	0.08	12.37	1.24

¹Per 1,000 population

²Infant death rates under one year of age per 1,000 live births

³Morbidity Rate Indicators – case rates per 100,000 population

⁴Average rate

Table 7.1.1b Age Distribution by County (annualized)

AGE	ALAMEDA	CONTRA COSTA	MARIN	MONTEREY	NAPA	SACRAMENTO	SAN FRANCISCO	SAN MATEO	SANTA CLARA	SANTA CRUZ	YOLO	TOTAL
0–4	109,015	62,962	13,825	35,357	7,877	93,639	43,113	51,844	134,428	17,658	11,817	581,535
5–9	115,720	67,854	14,918	37,199	8,222	99,737	48,886	55,191	138,608	20,122	12,277	618,734
10–14	104,484	67,563	14,659	31,981	8,437	92,582	39,956	49,846	121,687	17,715	11,356	560,266
15–19	93,828	63,002	13,028	29,189	8,383	86,801	35,172	44,199	109,402	17,917	15,229	516,150
20–24	87,466	57,788	13,325	28,050	8,113	77,147	36,483	41,167	101,108	16,165	19,520	486,332
25–29	94,832	55,887	18,160	26,158	8,704	73,163	44,825	44,681	117,968	16,332	13,422	514,132
30–34	115,698	58,324	21,821	30,763	8,640	86,072	67,056	54,323	141,865	19,468	12,897	616,927
35–39	129,183	71,953	24,163	33,647	9,057	104,224	84,162	65,090	170,790	20,461	12,265	724,995
40–44	129,801	78,095	25,516	32,121	9,674	103,161	76,684	64,711	162,015	22,513	10,989	715,280
45–49	114,160	74,409	20,078	27,254	9,461	89,785	67,906	58,009	130,923	22,757	8,257	622,999
50–54	99,701	69,905	14,361	22,264	8,758	75,728	56,881	52,134	110,620	19,681	7,348	537,381
55–59	71,192	53,159	10,738	15,897	6,816	53,277	39,595	39,762	86,964	12,831	6,735	396,966
60–64	52,556	39,705	9,699	11,970	5,282	43,077	32,784	31,457	67,161	8,519	5,334	307,544
65–69	41,830	31,689	9,608	10,911	4,752	37,659	29,720	26,043	53,761	7,160	4,643	257,776
70–74	37,444	28,077	8,789	10,230	4,456	33,660	28,901	23,770	43,665	6,647	4,006	229,645
75–79	32,546	24,012	7,297	8,655	4,391	29,484	25,516	20,267	34,927	5,925	3,484	196,504
80–84	21,255	14,880	4,619	5,495	3,016	18,477	16,747	13,076	20,718	4,136	2,288	124,707
85+	19,444	12,682	3,793	4,745	3,045	14,854	17,662	11,491	16,642	4,241	2,143	110,742
Totals	1,470,155	931,946	248,397	401,866	127,084	1,212,527	792,049	747,061	1,763,252	260,248	164,010	8,118,595
Median	35	37	38	32	37	34	39	37	35	36	29	

7.1.2 Give a general outline of the medical system currently in operation in your city and region. For current hospital services, give:

- Number of hospitals and their geographic distribution
- Number of beds
- Departments: specialties and personnel
- Heavy equipment and its distribution (diagnostic analysis and imaging, i.e., MRI, CT, Ultrasound)
- Operational procedures for emergency services only. Include details on emergency medical services for transport, via both ground and air, and trauma center availability.

The medical system in the San Francisco Bay Area is made up of a network of hospitals, medical groups and health plans, all working in concert to provide cost-effective, quality care to all persons regardless of their ability to pay.

The region boasts nearly 100 general acute-care hospitals representing over 53,000 licensed beds and nine designated trauma centers. These facilities serve a total population of approximately eight million people.

Five types of hospitals are found in the area: private not-for-profit, for-profit, teaching, university-affiliated, and county or state-managed. Most hospitals are affiliated with healthcare systems.

Hospitals are a major source of employment in the San Francisco Bay Area. Personnel staffing and resources are more than adequate in the full array of general and specialty areas needed to service the healthcare needs of the community.

The Joint Commission on Accreditation of Health Care Organizations accredits virtually all 100 hospitals. The services offered by these hospitals vary; however, every community has access to comprehensive medical-care services, including surgical services, birthing centers, intensive-care units, clinical laboratories, rehabilitation services, radiological services (including CT and MRI) and 24-hour emergency services. Table 7.1.2 summarizes the number and distribution (by county) of hospitals, beds, emergency rooms and trauma centers.

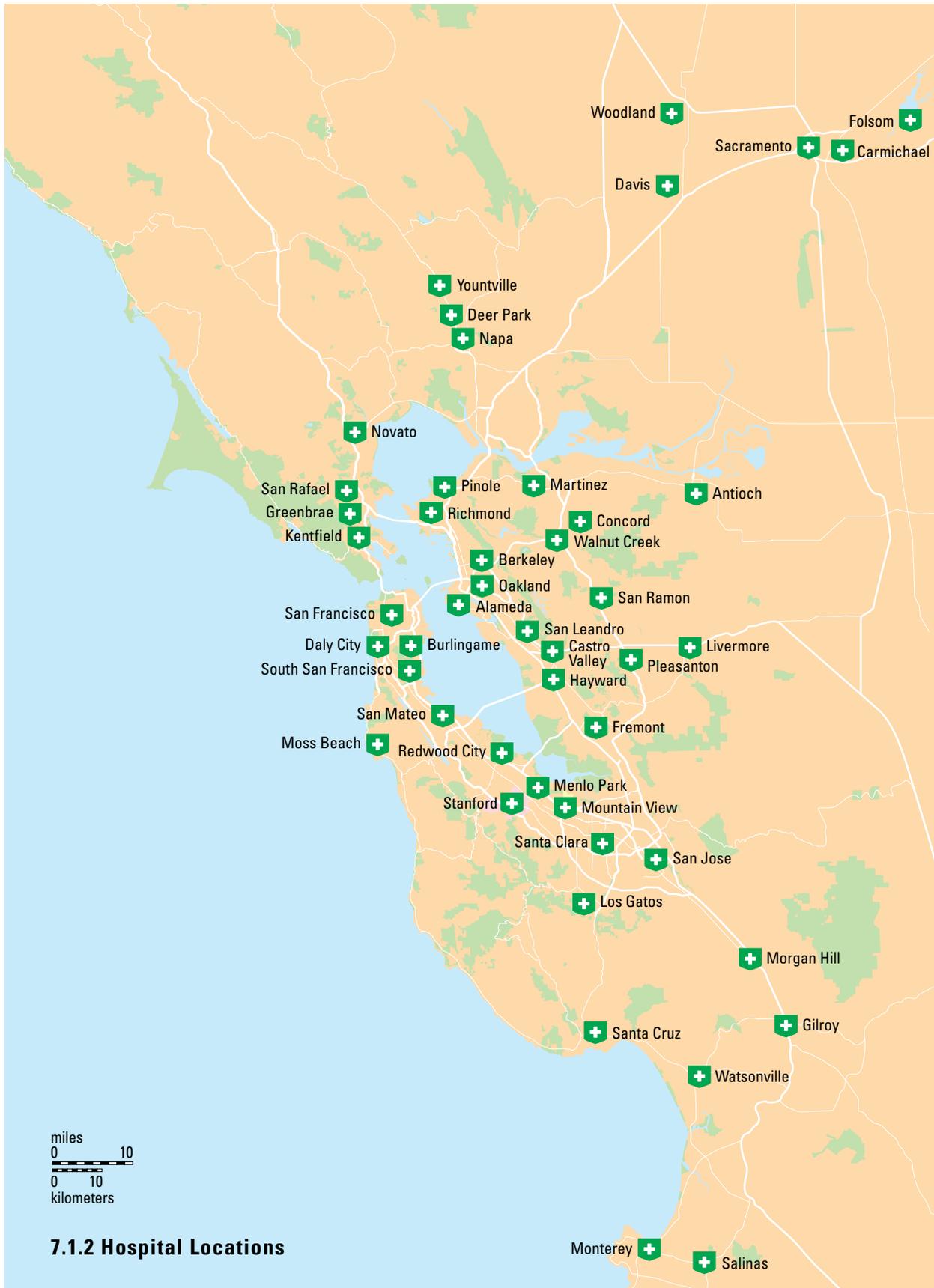
Table 7.1.2 Distribution of Hospitals

COUNTY	NUMBER OF HOSPITALS	NUMBER OF BEDS	NUMBER OF ERS	TRAUMA CENTERS
Alameda	19	3,728	11	3
Contra Costa	11	1,840	10	1
Marin	4	494	3	0
Monterey	5	807	5	0
Napa	4	2,880	2	0
Sacramento	12	3,240	9	1
San Francisco	15	6,132	8	1
San Mateo	9	1,866	7	0
Santa Clara	15	5,150	12	3
Santa Cruz	4	505	2	0
Yolo	2	163	2	0
Regional Total	100	26,805	71	9

Though Emergency Medical Services (EMS) is a national system in the United States, local branches of this service are coordinated at the county level. Each county, with the participation of its cities, develops its own EMS system. Coordination among systems occurs under the auspices of the State of California Emergency Medical Services Authority (EMSA). The counties in the bid region have similar systems in place, and routinely provide one another with mutual aid.

All EMS systems in the region provide service 24 hours per day, 365 days per year. EMS is activated through an enhanced 911 call system. Callers receive pre-arrival instructions in emergency first aid by trained dispatchers. In most urban areas, there is a dual response to medical emergencies, with a fire-rescue vehicle dispatched first, followed by an ambulance. Fire rescue is provided by at least a basic EMT provider; however, most fire departments now offer paramedic service. In addition to fire rescue, the California Highway Patrol is also trained to the basic EMT level. Those providing basic EMT service will have automatic or semiautomatic defibrillator availability. A single large private firm provides the majority of ambulance service in the region, with the balance of service provided by other private firms or fire department ambulances. Ambulances in the 911 systems are staffed to the paramedic level. There are sufficient numbers of first response vehicles and ambulances to accommodate any number of medical emergencies. The number of vehicles in service depends on the system status and projected needs. With the influx of athletes, other members of the Olympic Family and spectators, additional resources will be provided.

Both pre-hospital scene response and interfacility aeromedical transport are provided by several services. The region boasts nine helicopters and three fixed-wing craft for medical transport.



EMS has extensive experience working with major sporting events in the San Francisco Bay Area, including the 1984 Olympic Games (football competitions at Stanford Stadium), 1985 Super Bowl, 1994 World Cup Soccer and 1999 Women's World Cup Soccer.

7.1.3 *Describe your system for managing medical expenses for private, public and indigent care. Explain the arrangements for foreign nationals visiting your state, region and city.*

The expense of health care in the San Francisco Bay Area is covered by a variety of insurance sources. Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs) or point of service (POS) plans are most popular. A minority portion of the population utilizes standard indemnity insurance. In addition to these options, a state-funded Medi-Cal program provides coverage to approximately 1.3 million enrollees statewide. The Medi-Cal program is available to those Californians who cannot afford standard fee-based health insurance.

San Francisco Bay Area hospitals on average receive approximately 30% net revenue from Medicare, 12% net revenue from Medi-Cal, 50% net revenue from third-party payers (HMOs, PPOs, indemnity, etc.) and 6% from other sources (cash pay).

In spite of the plethora of insurance plans available in the state, some Californians remain uninsured. However, California hospitals and those in the San Francisco Bay Area are dedicated to providing quality care to all who need it. In 1999, hospitals in the bid region provided nearly \$740 million in uncompensated care. The cost statewide was \$2.5 billion.

Foreign nationals who are visiting the region as spectators must bear the cost of their own healthcare expenses. Foreign visitors will receive the same superior health services that the local residents enjoy and can arrange to have the associated expenses billed to their insurance company or national health service. In addition, travel agencies can assist visitors with obtaining traveler's insurance. Regardless of insurance status, all those who are in need of emergency medical care will be treated and cared for appropriately.

San Francisco Bay Area health professionals have extensive experience treating foreign visitors, including those here through their employment with international corporations and those seeking advanced care from one of the region's prestigious medical centers like Stanford, University of California at San Francisco and University of California at Davis.

7.1.4 *Give details of all city, county and state provisions for controlling drinking water quality, air quality and natural bathing/swimming water quality.*

■ *Drinking Water Quality*

Both public agencies and private companies provide drinking water from many sources to the San Francisco Bay Area. Regardless of the source of the water, strict federal and state water quality standards are maintained. Continuous sampling of the water occurs at the source, after treatment, in distribution lines, and ultimately from individual taps. In March 2000, California residents approved a massive Clean Water Bond program. This program is designed to ensure that water infrastructure and resources are maintained well into the future. The program will fund the following efforts:

- Clean Water State Revolving Fund – provides loans for construction of publicly owned wastewater treatment and water-reclamation facilities, stormwater pollution controls and estuary enhancement activities.

- Seawater Intrusion Control Program – provides loans for design and construction of facilities to protect groundwater from seawater intrusion.
 - Small Communities Grants – provides grants for public wastewater treatment facilities in communities with less than 10,000 people.
 - Water Recycling Financial Assistance Program – provides money for design and construction of water recycling facilities.
 - Other Non-Point Source/Watershed Grants – a number of other grants are available to local agencies to protect watershed and address non-point pollution sources.
- *Air Quality*
The Bay Area Air Quality Management District (BAAQMD) has had a program for the evaluation of toxic air contaminants since 1987. Under this program, the BAAQMD inventories the amount of various toxic substances emitted from facilities and performs health risk assessments to estimate cancer risk and other potentially adverse health effects. During the first year of the program, 30 facilities in the San Francisco Bay Area were identified with cancer risks that required public notification. An aggressive toxic-reduction plan was implemented in 1991, and today, only one industrial facility in the San Francisco Bay Area requires notification. As a result of stringent regional regulations and enforcement, the latest reports on air toxics show a 40% decline over the past five years in health risks from cancer-causing substances that are routinely measured in ambient air. Of greatest significance are reductions of 50% in average benzene levels and 40% in average 1,3-butadiene levels; both of these compounds are products of internal combustion engines. In addition, BAAQMD efforts to reduce industrial and commercial air toxic contaminants show a substantial decline over the past seven years. During the summer of 2000, the BAAQMD took part in a multimillion-dollar air-quality study. Information gained from this study will assist the BAAQMD in identifying problem areas and setting District priorities for the next ten years.
- *Natural Swimming/Bathing Water Quality*
There are a number of federal and state regulations and guidelines aimed at monitoring, posting and keeping our beaches and waterways clean and safe for all types of recreational use. At the core of these regulations is a routine but critical activity: Each county, through its environmental health division, samples beaches, creeks and other recreational waters on a weekly basis for microbial contamination. Through partnerships with non-profit organizations, such as Surf Riders and the Coastal Conservancy, pollutant pathways are investigated and controlled. In addition to ongoing microbial investigations, each county, in cooperation with their cities, participates in a National Pollution Discharge Elimination Program. The region's counties have formed a regional Stormwater Pollution Prevention Program (STOPPP). The goal of STOPPP is to reduce the discharge of any type of pollutant to creeks, lakes, the San Francisco Bay or the Pacific Ocean. Businesses are inspected by each county to evaluate their management of pollutant runoff from their properties. Efforts outlined above have had a positive effect on the water quality of the San Francisco Bay.

7.1.5 *Describe the resources in your city, region and state to counter epidemiological risks, and list the organizations responsible for controlling this issue. Include diseases that prevent entry into your country.*

Two major epidemiological threats that have affected the San Francisco Bay Area in recent years – AIDS and tuberculosis – have now been contained. After peaking in 1992–1993, the number of AIDS cases has dropped by over 80%. Similarly, the rate of tuberculosis has been dropping steadily since 1992 and has reached historical lows.

In the bid region, each of the counties has a comprehensive health department that monitors and protects the population from communicable disease. These activities include regular testing of all restaurants and eating establishments, monitoring of drinking water and regular assessment of such recreational waters as rivers, lakes and beaches.

The state Division of Communicable Disease Control, located in Berkeley, includes experts in disease surveillance and prevention, immunization and outbreak response. The state laboratory, also in Berkeley, has the capacity to assess viral, bacterial, rickettsial and food-borne hazards as well as to respond to bioterrorism threats. The state Health Department works closely with each local health authority, and will provide extra resources when needed. In addition, the University of California at San Francisco and Stanford University supply additional resources and expertise to assist with public health hazards.

Anyone applying for residential status in the United States is screened for the following conditions:

CONDITIONS	CONDITIONS
HIV	Suspected small pox
Infectious tuberculosis	Cholera or suspected cholera
Yellow fever	Plague
Viral hemorrhagic fevers	Diphtheria

7.1.6 *List the teaching hospitals in your city or nearby. For each one, list existing medical departments, medico-scientific and biomechanical research laboratories. Include any other laboratory resources in your region that may be involved during the Olympic Games.*

There are three major medical schools in the region: Stanford University, the University of California at San Francisco and the University of California at Davis. All three are internationally recognized centers of excellence in medical care, teaching and research. A full range of specialty training programs are available, supported by over 17 associated postgraduate training centers, as well as fellowships in many subspecialties. (See Table 7.1.6 for a list of training programs and sites for all three medical schools.)

The Stanford University School of Medicine, established in 1908, is a world-class training ground for future leaders in biomedical research and medical practice. The school has more than 200 basic science faculty and 400 clinical faculty members engaged in an extraordinary array of research and clinical activities. Clinical training takes place in several area facilities, but primarily in the Stanford Hospitals and Clinics and the Lucile Packard Children’s Hospital. Stanford University is also home to many excellent bioengineering and biomechanical groups within various departments in the School of Engineering, School of Medicine and School of Humanities and Sciences.

The University of California at San Francisco, School of Medicine, established in 1864, is the oldest operating medical school in the western United States, and has a fourfold mission of excellence in education, patient care, research and community service. The medical school has 1,350 full-time and 3,650 part-time or volunteer faculty members,

including three Nobel laureates in the last ten years and 23 members of the National Academy of Sciences. The school always ranks highly for National Institutes of Health (NIH) funding as well as in-patient care. Clinical instruction takes place in several facilities in San Francisco and the broader region.

The University of California at Davis, founded in 1966, maintains teaching, research and administrative facilities on campus while the majority of the school’s clinical space is located at the medical center, 17 miles to the east. The school has 443 full-time faculty and nearly 2,081 volunteer clinical faculty. The school is committed and well positioned to support biomedical research. The campus has both a medical and veterinary school in addition to a primate center, an agriculture college and a large division of biological sciences. Many of the latest advances in medical knowledge at the school of medicine result from collaborations with colleagues from these UC Davis colleges and units.

Table 7.1.6 Postgraduate Medical Training Programs

HOSPITALS/LOCATION (ASSOCIATED MEDICAL SCHOOL)	AN	DE	EM	FP	IM	NS	OB	OR	OT	PA	PE	PM	PS	PY	RD	RO	SG	UR	OTH
Alameda County Medical Center Oakland (UCSF, UC Davis)			■		■														■
Children’s Hospital Oakland (UCSF)											■								
Kaiser Permanente Medical Center Oakland (UCSF)					■		■				■								
UC Davis East Bay Oakland (UC Davis)																	■		
Methodist Hospital Sacramento (UC Davis)				■															
Sutter Health Family Practice Sacramento (UC Davis)				■															
UC Davis Medical Center Sacramento (UC Davis)	■		■	■	■		■	■		■	■	■	■	■	■		■		
Natividad Medical Center Salinas (UCSF)				■															
California Pacific Medical Center San Francisco (UCSF)					■									■					
Kaiser Permanente Medical Group San Francisco (UCSF)				■		■													
St. Mary’s Medical Center San Francisco (UCSF)				■			■									■			
UC San Francisco San Francisco (UCSF)	■	■		■	■		■	■		■	■		■	■	■	■	■	■	
San Jose Medical Center San Jose (Stanford)				■															
Santa Clara Valley Medical Center San Jose (Stanford)					■		■									■			■
San Mateo County General Hospital San Mateo (N/A)														■					
Kaiser Permanente Santa Clara (Stanford)					■		■												
Stanford University Stanford (Stanford)	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

AN	Anesthesia	NS	Neurosurgery	PA	Pathology	PY	Psychology
DE	Dermatology	OB	Obstetrics & Gynecology	PE	Pediatrics	RO	Radiation Oncology
EM	Emergency Medicine	OR	Orthopedics	PM	Physical Medicine & Rehabilitation	SG	General Surgery
FP	Family Practice	OT	Otorhinolaryngology	PS	Plastic Surgery	UR	Urology
IM	Internal Medicine					OTH	Others

7.1.7 *Specify what legislation is in force in your state, region and city concerning the practice of medicine, and describe the organization of the health service (general practice, hospitals, paramedical). Include the regulations for the practice of medicine (MD/DO), chiropractic (DC), athletic training (ATC), physical therapy (PT) and massage therapy (MT). Identify plans for granting temporary licensure for the listed professions for the duration of the Olympic Games.*

The reputation of medical services in the San Francisco Bay Area is world-renowned. In addition to major academic centers, there are approximately 100 local hospitals providing state-of-the-art medical care. Thus, health services in the San Francisco Bay Area are organized around the various hospitals and medical centers located here.

Thousands of physicians in the region practice in a variety of settings – primarily hospital- and office-based clinics. Most people have their care coordinated by a primary-care specialist, such as an internist, a pediatrician or a family practitioner. These physicians may refer patients to a network of specialists or subspecialists to provide specialty care, such as cardiology, surgery or oncology. In addition to physicians, chiropractors, nurse practitioners and physical therapists provide health care, usually in an office setting.

Healthcare professionals are licensed in the state of California by boards dedicated to the type of practitioner being licensed. Licensure requirements are defined in state statute, as passed into law by the state legislature and signed by the governor. The California Business and Professions Code regulates and defines licensure as follows:

- *Medicine (MD and DO) (Chapter 5 of Division 2)*
The practice of medicine, including licensure, is defined in the Medical Practice Act (for the MD and DO degree holders).
- *Physical Therapy (PT)*
The practice of physical therapy, including licensure, is defined in the Physical Therapy Practice Act.
- *Chiropractic (DC) (Chapter 2 of Division 2)*
The law governing practitioners of chiropractic is found in an initiative act that defines licensure.
- *Massage Therapy (MT)*
The State of California has no specific licensure for massage therapy. The Physical Therapy Practice includes massage as part of the scope of practice of the physical therapist. In addition, the Acupuncture Licensure Act (Chapter 12 of Division 2) allows a licensed acupuncturist to perform or prescribe the use of oriental massage. A business of massage, including educational standards, is regulated at the city or county level, under Sections 51030-51034 of the California Government Code.
- *Athletic Training (AT)*
The State of California has no specific legislation covering Athletic Trainers. But because of the presence of leading-edge medical experts and the plethora of professional sports teams and internationally ranked athletes who train and compete in the San Francisco Bay Area, athletic training is a highly advanced practice here.

Licensure is granted by the California state legislature. Once identified as the Host for the 2012 Olympic Games, the OCOG will work with the Medical Board of California, as well as the other boards, to sponsor necessary legislation. Temporary legislation will be passed to allow listed health professionals to care for members of their Olympic team and support staff. The 1984 Olympic Games in Los Angeles and the 1994 Football (Soccer) World Cup established the precedent for such legislation.

7.1.8 *Does your state, county and city have any legislation on doping? If so, give details regarding the use, sale, manufacture or importation of controlled, illegal and illicit drugs/substances.*

In California, substances associated with sports doping are controlled under the California Uniform Controlled Substances Act, Division 10 of the California Health and Safety Code. Article 1, Chapter 4, section 11150 states that no person other than a physician, dentist, podiatrist or veterinarian (or pharmacist, registered nurse, nurse practitioner, physician assistant or an out-of-state prescriber under specific exceptions allowed by law) shall write or issue a prescription. Further, section 11153 states that a prescription for a controlled substance shall only be issued for a legitimate medical purpose by an individual practitioner acting in the usual course of his or her professional practice.

Controlled substances are divided into five schedules. All substances in schedule I, which include many opiates, opiate-derivatives, hallucinogens and tetrahydrocannabinols (THCs), are illegal to possess, carrying a penalty of jail, fine or both. All substances in schedules II–V, including many IOC-prohibited substances (e.g., anabolic steroids, stimulants, etc.), may only be obtained by prescription of a professional under the conditions listed above. Possession or use of such substances without a proper prescription is prohibited and carries a penalty of jail, fine or both.

Many of the IOC-prohibited substances are available over-the-counter without prescription. Possession is not illegal.

7.2 ARRANGEMENTS ENVISIONED FOR THE GAMES

7.2.1 *Describe the plans for investment in healthcare facilities in your city and region over the next ten years and any additional investments which would be entailed, should the city be chosen as the U.S. candidate city, then ultimately, to host the Olympic Games.*

Given the vast amount of healthcare services and personnel available within the region, the clinical needs of the 2012 Olympic Games can be effectively managed with the current resources. However, developments and improvement in technology will continue to occur and the delivery of healthcare services in the San Francisco Bay Area will continue to be enhanced through investment in equipment, technology and personnel.

The state of California has stringent standards for the physical plant and safety of healthcare facilities. The San Francisco Bay Area is proud to have a core of premier healthcare facilities, both in terms of physical plant as well as state-of-the-art technology and equipment.

A recently signed state law requires that all hospitals in the state be in accordance with current earthquake building codes regardless of the original construction date. The earthquake retrofitting must be completed by 2008. Ten billion dollars are being spent statewide on California hospitals in order to comply with this law.

Should San Francisco be chosen as the U.S. Candidate City, an advisory Medical Support Group will be formed, consisting of physicians, hospital administrators, emergency medical services coordinators, researchers, ancillary medical services personnel and pre-hospital care providers. A Chief Medical Officer and Chief Medical Administrator will be selected and they will be responsible for the recruitment of medical staff and the coordination of hospitals and supplies.

Athletes and Olympic Family

A medical plan to care for athletes and the Olympic Family will be developed. This will consist of polyclinics at each of the Olympic centers of San Francisco, Stanford, San Jose and Sacramento. These polyclinics will provide non-emergency medical care to members of the Olympic Family. Each polyclinic would include a minor surgery suite, a pharmacy, a clinical laboratory, an x-ray machine, a diagnostic ultrasound facility and a computerized medical record system. In addition, a mobile MRI will be available. It is anticipated that there will be many advances in medical technology by the time the 2012 Olympic Games commence. Plans will be periodically updated to ensure state-of-the-art services for these Olympic Games.

In addition to a polyclinic, a Sports Medicine Center will be established at each village. Physicians, physical therapists, athletic trainers and other healthcare professionals will staff these centers. All necessary equipment will be provided, including whirlpool, electric stimulation, ultrasound, icemakers and nonprohibited over-the-counter medications.

A Veterinary Medicine Center will be established at the equestrian venue to provide comparable services to equine athletes. Staffing will include veterinarians, veterinary nurses and therapists.

An Athlete Medical Station will be located at each sports venue, and will be staffed by at least one physician, one nurse and one athletic trainer. The station will be able to provide full advanced life support, including emergency airway management and defibrillation. Multilanguage translators will be at each station.

A Spectator Medical Station will be located at each venue. Larger venues will have several stations. Each station will open two hours prior to the start of competition and close after the venue has emptied. A physician, a nurse and additional ancillary emergency personnel will staff each station. Each station will be able to provide advanced life support.

A Mobile Medical Crew, consisting of a physician and a nurse, will be stationed at each venue; larger venues will have multiple Mobile Medical Crews. These crews will provide advanced life support and have portable defibrillator/monitors, medications and IVs.

The polyclinics, the Sports Medicine Centers, the Medical Stations and the Spectator Medical Centers will all interface with on-scene ambulances and the local Emergency Medical Services (EMS) in the event of a medical emergency.

7.2.2 *Provide a guarantee from the relevant national, regional and local authorities that these plans are practicable and compatible with the harmonious development of your state, region and city (Theme 19 – Guarantees).*

Guarantees from the relevant authorities are provided in **Theme 19 – Guarantees**.

7.2.3 *Explain how the Olympic Games will fit in with your first aid, transport and emergency services.*

The health services required by an event the magnitude of the Olympic Games could be well managed by the breadth, strength and collective experience of the services that exist today in the San Francisco Bay Area.

During the 2012 Olympic Games, the Organizing Committee for the Olympic Games (OCOG) will integrate the medical care provided at the venues and villages into the regional EMS system, and normal operations of emergency medical services will continue, with several enhancements. During competition, OCOG will station at least two ambulances at each venue, with a minimum of one for athletes and one for spectators. Outside of competition, OCOG will position at least one ambulance at each village. Excepting large-scale, unexpected emergencies, these ambulances will not participate in routine EMS dispatches. Physicians stationed at the venues or at the Olympic Village may wish to provide medical care within their scope of practice until the patient arrives at the destination hospital. Alternatively, the physician may wish to relinquish care responsibilities to the ambulance personnel, under the medical direction provided by the EMS system. The ambulances will provide care and transportation to an appropriate facility, as designated by EMS protocol.

7.2.4 *Give your current plans for management, evacuation and assistance in the event of a natural or man-made disaster, specifying the chain of command and transfer of responsibilities. How will these be affected by the Olympic Games? If the chain of responsibility and command would change due to the Olympic Games, give details.*

The state of California has a comprehensive disaster plan, involving all regions within the state. Overall responsibility for a large-scale disaster lies with the Governor's Office of Emergency Services (OES) in Sacramento. In the event of a man-made or natural disaster, the state of California, the local EMS systems and local police and fire departments participate in a well-coordinated response plan. The presence of the 2012 Olympic Games in the region would not require major modifications to the plan. There have been numerous large-scale events in the state, and each has integrated into the regional and state plans. The chain of responsibility and command would not change during the staging of the 2012 Olympic Games. The regional and state offices of emergency services, police forces, fire departments and EMS agencies and providers would work with their counterparts on the Olympic Games' management team to ensure that all are properly prepared and able to interface quickly and efficiently.

The state of California has an Emergency Plan that utilizes the Standardized Emergency Management System (SEMS). All organizations dealing with emergency activities at any level should use SEMS throughout the four phases of a disaster: mitigation, preparedness, response and recovery.

SEMS consists of five, consecutively larger organizational levels that are activated as necessary: field response, local government, operational area, region and state. SEMS incorporates the use of the Incident Command System (ICS), the Master Mutual Aid Agreement, existing discipline-specific mutual aid, the operational area concept and multi-agency or inter-agency coordination. Smaller-scale multiple casualty incidents (generally single-site incidents) are managed at the local level. Each EMS system has its own local plan to manage these incidents, based on ICS, and to interface with OES in

larger incidents. As resources become inadequate, the response can be expanded regionally or statewide. ICS allows for expansion or contraction of the response to meet the needs of the incident. As such, the Incident Commander will vary with the size of the event. In a large-scale event, the governor bears ultimate responsibility.

Mutual-aid agreements are in place to ensure sufficient resources. In local incidents, police, fire and medical resources from adjoining counties may be utilized. In a large-scale incident, resources from other parts of the state or country, such as Urban Search and Rescue (USAR) teams or Disaster Medical Assistance Teams (DMAT), may be required.

There is precedence for the San Francisco Bay Area responding to a major natural disaster during a major sporting event. In 1989, a magnitude 7.1 earthquake struck just as a game of the World Series (of baseball) was beginning. The plan in effect at that time minimized loss of life, and quickly transported and successfully cared for a large number of injured persons.

7.2.5 *Is there an IOC-accredited doping laboratory in your territory? Give a brief indication of the procedures envisaged for sample transportation. Indicate the distance (in miles and travel time) between the accredited laboratory and the Olympic Village(s). If there is not an accredited laboratory in your territory, outline the procedures envisioned for performing doping controls.*

Drug testing of athletes at the San Francisco Bay Area venues will take place at the UCLA Olympic Analytical Laboratory in Los Angeles, one of the two IOC-approved doping laboratories in the United States. This laboratory has experience with both the 1984 Olympic Games in Los Angeles and the 1996 Olympic Games in Atlanta. It will also be involved in the 2002 Olympic Games in Salt Lake City.

Detailed policies and procedures for testing athletes will be established through collaboration with the IOC Medical Commission and the International Federation for each sport. We will secure signed agreements for each sport prior to the Olympic Games to avoid controversies during competition. A Chief Doping Control Officer will recruit a full-time administrative staff, physicians to serve as Medical Officers, ancillary medical staff to serve as Technical Officers and volunteers to serve as Doping Control Escorts. We will locate the Doping Control Command center at the same site as the Medical Command Center and the IOC Medical Commission, where we will keep a central store of supplies. We will make available ample vehicles to transport officials and supplies to the venues. We will establish Doping Control Stations at each venue and run them in strict accordance with the IOC Olympic Movement Anti-Doping Code. These stations will be staffed with sufficient Medical Officers, Technical Officers, Doping Control Escorts and security to ensure accurate and efficient procurement of specimens. Specimens will be transported by commercial courier service in tamper-proof containers to the laboratory. We may transport specimens requiring a more rapid turnaround by commercial airline. And we will maintain strict chain-of-custody protocols, including a permanent log, at all times to ensure validity and fairness of testing.

The close proximity of the UCLA lab to the San Francisco Bay Area, will facilitate transportation of specimens by air. The San Francisco Bay Area has three international airports, (San Francisco, Oakland and San Jose), each with dozens of daily flights to Los Angeles. The region has many smaller, municipal airports that can also be accessed.

7.2.6 *Specify the hospital(s) that would be used for the Olympic family, giving the number of beds and the distance (in miles and travel time by car) from the Olympic Village(s), venues and USOC and IOC headquarters hotel.*

The Olympic Family's hospital needs will be provided by San Francisco General Hospital, which is located at 1001 Potrero Avenue. San Francisco General Hospital has 736 licensed beds and a comprehensive emergency service, including a Level 1 Trauma Center. The hospital is located 2.5 miles, or approximately six minutes by car, from the IOC Hotel at the San Francisco Marriott.

As an alternative, Saint Francis Memorial Hospital, located at 900 Hyde Street, is also within close proximity. Saint Francis Memorial Hospital is a 362-bed facility with comprehensive emergency services; however, it is not a designated trauma center. The hospital is located 1.9 miles, or approximately six minutes, from the IOC Hotel.

Other facilities available to provide for the medical needs of the Olympic Family include Stanford University Medical Center, one mile from Stanford Stadium, which includes Stanford Hospital and Clinics (643 licensed beds) and the Lucile Packard Children's Hospital (214 licensed beds); and University of California at Davis Medical Center (528 licensed beds) in Sacramento.

Table 7.2.6 Area Hospitals and Distance from Olympics Sites

PROPOSED VENUE	HOSPITAL	# BEDS	MILES	LOCATION
Olympic Village (Moffett Field)	El Camino Hospital	452	2.70	Mountain View
	Stanford University Hospital ¹	643	6.70	
IOC/USOC Headquarters (Union Square)	St. Francis Medical Center	362	0.52	San Francisco
	California Pacific Medical Center	382	1.36	
	San Francisco General Hospital ¹	736	2.20	
Stanford University (Stadium, Sunken Diamond, Maples Pavilion, Swim Center)	Stanford University Hospital ¹	643	0.75	Palo Alto
Mather Regional Park	Kaiser Sacramento	340	6.33	Sacramento
	UC Davis Trauma ¹	528	7.35	
Pac Bell Park	St. Francis Medical Center	362	1.50	San Francisco
	San Francisco General Hospital	736	1.75	
Raley Field	Sutter General	357	2.54	Sacramento
	UC Davis Trauma ¹	528	3.58	
Oakland Arena	Alameda Hospital	135	2.93	Oakland
Network Associates Coliseum	Alameda County Med. Ctr. – Highland ¹	316	4.90	
Haas Pavilion	Alta Bates/Summit Med. Ctr. (Berkeley)	527	1.63	Berkeley
	Alameda County Med. Ctr. – Highland ¹	316	8.40	
Cow Palace	St. Luke's Hospital	260	2.94	San Francisco
	San Francisco General Hospital ¹	736	3.57	
Lake Natoma	Vencor Hospital, Folsom	39	1.00	Sacramento
	Mercy San Juan Hospital	233	7.33	
San Francisco (Waterfront to Golden Gate Park)	Kaiser San Francisco	323	1.25	San Francisco
	San Francisco General Hospital ¹	736	4.18	
Domaine Chandon	Queen of the Valley ¹	166	6.17	Napa
Monterey Horse Park	Community Hosp. of the Monterey Peninsula	169	3.80	Monterey
	Natividad Medical Center	163	16.64	
Moscone Center	St. Francis Hospital	362	1.00	San Francisco
	San Francisco General Hospital ¹	736	1.96	

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Table 7.2.6 Area Hospitals and Distance from Olympics Sites *continued from previous page*

PROPOSED VENUE	HOSPITAL	# BEDS	MILES	LOCATION
3Com Park	St. Luke's Hospital	260	3.18	San Francisco
	San Francisco General Hospital ¹	736	3.30	
Memorial Stadium	Alta Bates/Summit Med. Ctr. (Berkeley)	527	0.63	Berkeley
	Alameda County Med. Ctr. – Highland ¹	316	8.40	
Qualcomm Stadium	Scripps Mercy Hospital Medical Center ¹	525	5.50	San Diego
Rose Bowl	Huntington Memorial Hospital	525	0.80	Pasadena
Los Angeles TBD Site	California Hospital Medical Center	313	2.10	Los Angeles
San Jose Arena	San Jose Medical Center	398	1.48	San Jose
	Santa Clara Valley Medical Center	650	2.18	
Spartan Stadium	San Jose Medical Center	398	1.59	San Jose
	Santa Clara Valley Medical Center ¹	650	3.54	
San Jose Convention Center	San Jose Medical Center	398	1.23	San Jose
	Santa Clara Valley Medical Center ¹	650	2.54	
Treasure Island	St. Francis Medical Center	362	3.10	San Francisco
	San Francisco General Hospital ¹	736	4.57	
San Jose Shooting Center	Kaiser Santa Teresa	228	3.29	San Jose
	Santa Clara Valley Medical Center ¹	650	10.20	
George Haines Int. Swim Center	O'Connor Hospital	420	2.20	Santa Clara
	Santa Clara Valley Medical Center ¹	650	2.99	
Golden Gate Park Polo Fields	Kaiser San Francisco	353	1.88	San Francisco
	San Francisco General Hospital ¹	736	3.40	
Kaiser Auditorium	Summit Medical Center	523	1.68	Oakland
	Kaiser Oakland	346	1.92	
	Alameda County Medical Center – Highland ¹	316	2.10	

¹Area Trauma Centers

7.2.7 *How do you propose to recruit, select and train the personnel necessary for the health services put in place for the Olympic Games? Do you propose to recruit regionally, nationally or both?*

An advisory Medical Support Group will be developed to address the medical needs of the 2012 Olympic Games. The board will be composed of local, state and nationally recognized medical professionals with expertise in sports medicine, emergency medical services and spectator care. It is anticipated that a majority of the needed personnel will be recruited locally. As evidenced by the number and quality of healthcare facilities in the region, there should be no shortage of physicians, athletic trainers and other ancillary staff. It is further anticipated that there will be strong interest from throughout the state by other physicians, trainers and healthcare personnel to provide services at the 2012 Olympic Games. Licensure and certification is statewide and, therefore, facilitates statewide recruitment. Nationally recognized experts will be recruited whenever possible for specific program improvement. It is not, however, anticipated that a staffing shortage would exist without national recruitment.

The advisory Medical Support Group will be charged with forming committees to develop specific plans and training for the various medical activities, including polyclinics, sports medicine centers, venue medical stations and spectator medical stations. Training will be extended to include the EMS community to provide an efficient link between the venue/Olympic Village and the hospital system, as well as to prepare for any eventuality.

7.3 EQUINE HEALTH

7.3.1 *Please indicate which infectious diseases have occurred in your equine population during the past five years, at an epidemic level or whether there are diseases which are endemic in your country, state or region.*

There have been no equine infectious disease epidemics in the United States in the past five years. The United States is free of Contagious Equine Metritis (CEM). Testing of horses is required prior to departure from their country of origin, and again on arrival. Horses of breeding age are quarantined from two to four weeks upon arrival in the United States. All other horses are quarantined as well: three days for horses from Europe, seven days for horses from South America. Equine Viral Arteritis is endemic to the region, but is well controlled and has not resulted in an epidemic. Other equine diseases, such as Equine Infectious Anemia, Rabies, Eastern Equine Encephalomyelitis and Vesicular Stomatitis, have also not resulted in epidemics.

7.3.2 *Describe the resources in your city, state and region to counter epidemiological risks in the veterinary field, and list the organizations responsible for controlling such risks (where applicable).*

The U.S. Department of Agriculture (USDA) is responsible for the health of animals entering the United States from a foreign country. The USDA requires that animals be properly tested and vaccinated before entering the country.

The California Department of Food and Agriculture works with the USDA to detect and control all epidemic risks to the equine population in California.

The University of California at Davis School of Veterinary Medicine is the largest and most diverse school of veterinary medicine in the world, including the 27 veterinary schools in the United States, with 230 faculty and more than 700 staff. The Veterinary Medical Teaching Hospital (VMTH), a unit of the School of Veterinary Medicine, provides clinical material for teaching programs throughout the school. Approximately 13,500 dogs, 3,300 cats, 4,900 horses, 1,100 cows, 150 sheep, 250 goats, 50 pigs and 1,200 exotic species are treated each year. About 1,200 major and 600 minor large-animal surgeries are performed each year, along with 2,300 major and 1,900 minor small-animal surgeries. An average of 75 small animals and 90 large animals are hospitalized at any one time.

A 1982 state law created the California Animal Health and Food Safety Laboratory and designated the School of Veterinary Medicine of the University of California at Davis to manage the system. The main reference laboratory is located at UC Davis, with four branch laboratories elsewhere in the state. Part of the mission of the laboratory is to provide the highest-quality service for equine health and performance.

7.3.3 *Does the laboratory described in question 7.2.5 also perform equine sample testing?*

The UCLA Olympic Analytical Laboratory does not perform animal testing. The Ken Maddy Equine Analytical Chemistry Laboratory at the University of California at Davis is capable of performing testing, but is not currently approved by the FEI.