

# **MEMORANDUM**

**DATE:** August 1, 2019

**TO:** James Loyce, Jr., M.S., Health Commission President, and Members of the Health Commission

**THROUGH:** Naveena Bobba MD, Deputy Director of Health/Deputy Health Officer

**THROUGH:** Sneha Patil, Director, Office of Policy and Planning

**FROM:** Claire Lindsay, Senior Health Program Planner, Office of Policy & Planning

**RE:** Proposition Q – Follow-Up from St. Mary’s Hearing on July 16, 2019

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In accordance with the Community Health Care Planning Ordinance (Proposition Q, 1988), John Allen, President of St. Mary’s Medical Center (St. Mary’s), notified the Secretary of the Health Commission in a letter dated April 29, 2019 of St. Mary’s plans to 1) close the St. Mary’s Cardiovascular Surgery program, and 2) close the Spine Center, a 1206(d) licensed outpatient clinic operating with the single physician group, the SF Spine Group (the Group).

On July 16, 2019, the Health Commission held one of two planned Proposition Q hearings regarding St. Mary’s proposed changes. During the July 16 hearing, the Health Commission requested additional data from St. Mary’s and the Department of Public Health (DPH) about the closure of the cardiovascular surgery program. Specifically, the Health Commission requested information pertaining to the following items:

- I. History of the cardiovascular surgery program at St. Mary’s Medical Center
- II. Cardiac catheterization services and trends
- III. Cardiac surgery outcomes
- IV. Planned and emergent cardiac surgeries
- V. Affiliated hospitals of St. Mary’s cardiologists
- VI. Cardiac surgery services throughout San Francisco and the greater Bay Area
- VII. Insurance coverage for surgical patients referred from St. Mary’s
- VIII. Capacity for surgical patients at San Francisco hospitals

## **I. History of Cardiovascular Surgery at St. Mary’s Medical Center**

St. Mary’s Medical Center is an accredited, not-for profit hospital that has provided health care services to the San Francisco and neighboring community since 1857. St. Mary’s has been a leader in cardiovascular surgery and other cardiovascular disease treatments. St. Mary’s was once the leading open-heart program in San Francisco, and 20 years ago St. Mary’s saw close to 1,200 cardiovascular surgery cases. St. Mary’s was the premier center for cardiovascular surgery and pioneered the advancement of minimally-invasive

techniques used to treat cardiovascular disease. While the utilization of less-invasive procedures has grown, coronary artery bypass grafting (CABG) remains the gold standard and most common cardiac surgery performed today with an average 200,000 surgical cases in the United States annually.<sup>1</sup> Despite the continued need for invasive cardiac procedures, St. Mary's average case volume has fallen to approximately 30 cardiovascular surgeries per year.

## II. Cardiac Catheterization Services & Trends

While St. Mary's plans to discontinue cardiovascular surgery services after July 31, 2019, the services offered through the cardiac catheterization lab will continue. The following is a comprehensive list of cardiac procedures and services that will continue to be offered at St. Mary's:

1. Diagnostic Cardiac Catheterization, including right and left heart catheterization
2. Diagnostic Peripheral Angiogram
3. Peripheral Angioplasty
4. Percutaneous Coronary Interventions, may include the following:
  - a. Coronary balloon angioplasty
  - b. Coronary stent angioplasty (Bare Metal Stents or Drug Eluting Stents)
  - c. Intravascular Ultrasound (IVUS)
  - d. Fractional Flow Reserve (Radi pressure wire)
  - e. Intra-aortic Balloon placement
  - f. Left Ventricular Assist Device placement (Impella)
  - g. Directional Coronary Atherectomy (Rotablator)
  - h. Orbital Coronary Atherectomy (CSI)
5. Electrophysiology Study, may include:
  - a. Arrhythmia ablation
  - b. Transseptal puncture
  - c. AICD placement with EP-3D mapping
6. Cardiac Device Implants
  - a. Permanent and temporary pacemaker implantation (single chamber, dual chamber or biventricular)
  - b. Pacemaker lead and/or generator change
  - c. AICD implantation
  - d. Event recorder implantation
  - e. Heart failure sensor monitor (CardioMems)
7. Pericardiocentesis (may include pericardial drain insertion)
8. IVC filter insertion
9. Intra-Aortic Balloon Pump insertion
10. Treatment for pulmonary, arterial and venous embolisms
  - a. Ultrasound-assisted catheter directed thrombolysis (EKOS)
  - b. Mechanical Thrombectomy (AngioJet or Penumbra)
  - c. TPA thrombolysis
11. Transesophageal Echocardiogram
12. Cardioversion
13. Cardiac Fluoroscopy
14. Tilt Table Test
15. Endomyocardial Biopsy
16. Venous and/or arterial sheath removal
17. Closure devices for vascular access
  - a. Mechanical External Compression Device (Femostop)
  - b. Perclose ProGlide
  - c. Angioseal
  - d. Safeguard
18. Radial compression band (TR band)

As reported in the memo to the Health Commission dated July 10, 2019, the volume of cardiovascular surgery patients at St. Mary's is approximately 30 surgical patients each year. At the Health Commission hearing on July 16, 2019, St. Mary's verbally reported that this year they may only see approximately 15

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<sup>1</sup> Melly, L., et. al., Fifty Years of Coronary Artery Bypass Grafting. Journal of Thoracic Disease. (2018). Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5906252/>

patients, or half of their usual volume of surgical patients. Similarly, the volume of St. Mary’s cardiac catheterization services has fluctuated. From data reported by California’s Office of Statewide Health Planning and Development (OSHPD), St. Mary’s total catheterization services has decreased from 807 procedures in 2014 to 740 procedures in 2017 (the most recent year data was available). The following is a table of St. Mary’s cardiac catheterization service volume over time.

**TABLE 1. ST. MARY’S CARDIAC CATHETERIZATION SERVICE VOLUME OVER TIME<sup>2</sup>**

Cardiac Catheterization Service	2014	2016	2017
Diagnostic Cardiac Catheterization Procedures	442	375	414
Pacemaker Implantation	56	48	51
Other Pacemaker Procedures	29	28	21
Implantable Cardioverter Defibrillator (ICD) Implantation	6	5	3
Other ICD Procedures	6	1	2
PCI – with Stent	188	177	193
PCI – without Stent	16	0	5
Atherectomy	2	7	5
Thrombolytic Agents	0	0	1
Diagnostic Electrophysiology Study	6	1	1
Catheter Ablation Procedures	7	1	6
Peripheral Vascular Angiography	26	25	20
Peripheral Vascular Interventional Procedures	13	12	18
Intro-Aortic Balloon Pump Insertion	5	4	0
All other Catheterization Procedures	5	10	0
<b>Total Catheterization Procedures</b>	<b>807</b>	<b>694</b>	<b>740</b>

*\*Note: OSHPD did not receive final data from St. Mary’s Medical Center in time for the publication of 2015 data*

It is unknown whether the low volume of cardiovascular surgery cases has an impact on the volume of cardiac catheterization procedures. St. Mary’s has reported that decisions whether to undergo a minimally-invasive procedure as opposed to cardiovascular surgery are kept between by doctor and patient; thus, there is no way of knowing whether trends in the number of minimally-invasive procedures is associated with the volume of cardiovascular surgery patients at St. Mary’s Medical Center.

### III. St. Mary’s Patient Volume & Cardiovascular Surgery Outcomes

The outcome and complication data reported in the Health Commission memo dated July 10, 2019 was obtained through the OSHPD Coronary Artery Bypass Graft (CABG) Outcomes Reporting Program. Hospitals report directly to OSHPD’s CABG Outcomes Reporting Program which analyzes and aggregates data to provide quality ratings for the state-licensed hospitals and surgeons that provide CABG surgery. The most recent data that is publicly available is 2016. The data shows that in terms of outcome metrics for cardiovascular surgeries (i.e. mortality and 30-day readmission), St. Mary’s outcomes rate are consistent with other San Francisco hospitals that offer cardiovascular surgery.

<sup>2</sup> California’s Office of Statewide Health Planning and Development (OSHPD). Hospital Utilization Pivot Tables 2014 – 2018.

Retrieved from: <https://oshpd.ca.gov/data-and-reports/healthcare-utilization/hospital-utilization/#pivot>

More up-to-date outcome and complication data was requested by DPH staff from St. Mary’s, however due to CA Evidence Code Sec. 1157, St. Mary’s cannot directly release this information. With so few cases, patient privacy concerns limit the release of updated outcome and complication data by St. Mary’s.

As a follow-up, St. Mary’s provided information from their Cardiology Quality Committee on their internal process for reviewing case outcomes. The chair of the Cardiology Quality Committee conducts a review of cases and presents the summaries at monthly cardiology department meetings. In addition, the Chair provides monthly education tied to the type(s) of cases discussed each month and provides department physicians with mini take-home quizzes pertaining to educational articles. On July 24, 2019, St. Mary’s shared that the cardiology department had just met to discuss recent cases, and their outcomes remain the same. The peer review process in assessing St. Mary’s outcomes is very thorough and show consistent outcomes despite being a small volume program.

#### IV. Cardiovascular Surgery Patient Classification

As follow-up to the Health Commission hearing on July 16, 2019, St. Mary’s gathered information on how many of their surgical patients have planned surgeries as opposed to emergent procedures. There are four classifications of surgical patients:

1. Elective – waits at home, surgery is scheduled in advance
2. Urgent – not too sick, patient waits in hospital for scheduled surgery
3. Emergent – cannot wait or is not safe to wait
4. Emergent Salvage – no pulse

The table below displays the volume of cardiovascular surgery patients at St. Mary’s Medical Center by surgery classification over time.

**TABLE 2. ST. MARY’S CARDIOVASCULAR SURGERY PATIENTS BY SURGERY TYPE OVER TIME**

	2011	2012	2013	2014	2015	2016	2017	2018	Total
<b>Elective</b>	18	7	13	10	12	6	6	3	75
<b>Urgent</b>	21	13	7	10	13	11	4	8	87
<b>Emergent</b>	4	2	3	3	2	1	1	0	16
<b>Emergent Salvage</b>	0	0	0	0	0	0	0	0	0
<b>Total</b>	43	22	23	23	27	18	11	11	178
<b>Percent Non-Elective</b>	58.2%%	68.2%	43.5%	56.5%	55.6%	66.7%	45.5%	72.7%	<b>57.9%</b>

Based on the data provided by St. Mary’s, the percent of total cardiovascular surgeries that are non-elective fluctuates from year to year, with an average of 57.9% from 2011 to 2018. Upon closure of St. Mary’s cardiovascular surgery unit, the non-elective cases will likely be transferred to California Pacific Medical Center (CPMC) Van Ness campus, or UCSF Parnassus, as they are the closest hospitals to St. Mary’s.

#### V. St. Mary’s Cardiologists’ Affiliations

St. Mary’s has stated that they are supportive of their cardiologists practicing at other hospitals. St. Mary’s does not have a comprehensive list of hospitals where their cardiology physicians actively provide

cardiovascular care outside of St. Mary's Medical Center. However, St. Mary's provided DPH staff with a roster of all specialty medical staff active at St. Mary's Medical Center, dated June 12, 2019. The staff roster for cardiology specialties included physician names and the location of their offices. From that data, it can be inferred where St. Mary's cardiology physicians' practice outside of St. Mary's Medical Center.

The cardiology department at St. Mary's includes 19 cardiologists specializing in the general treatment of cardiovascular disease. Approximately 42% of these cardiologists have offices at St. Mary's Medical Center. The other cardiologists have offices at CPMC's Pacific, California, and Van Ness campuses in San Francisco, Seton Medical Center in Daly City, and at various medical offices in Chinatown and the Outer Sunset neighborhoods of San Francisco.

There are 12 cardiologists that specialize in cardiac electrophysiology at St. Mary's Medical Center. The offices of these 12 physicians are located at hospitals throughout the Bay Area. The hospitals include: Stanford Medical Center in Palo Alto, CPMC's Pacific campus in San Francisco, University of California San Francisco (UCSF) Medical Center at Parnassus in San Francisco, and at Alta Bates Summit Medical Center in Oakland. Eight of the 12 physicians are primarily located at UCSF Medical Center at Parnassus.

As stated by St. Mary's, due to the low volume of cardiovascular surgery patients, it would not be financially feasible for their cardiovascular surgeons to exclusively practice at St. Mary's Medical Center. Three cardiovascular surgeons who practice at St. Mary's Medical Center, are also credentialed at various hospitals throughout the Bay Area, including CPMC, Regional Medical Center, UCSF, and Kaiser Foundation Hospital.

## **VI. Cardiovascular Surgery Services throughout the Bay Area**

There are several other hospitals in San Francisco and the greater Bay Area that provide the same level of cardiovascular surgery services that are currently provided at St. Mary's.

- San Francisco hospitals that provide cardiovascular surgery:
  - UCSF (Parnassus & Mission Bay campuses)
  - California Pacific Medical Center (Van Ness campus)
  - Kaiser Foundation Hospital San Francisco
- Greater Bay Area hospitals that provide cardiovascular surgery:
  - Mills Peninsula, Burlingame
  - Marin General Hospital, Kentfield
  - Dignity Health Sequoia Hospital, Redwood City
  - Alta Bates Summit medical Center, Oakland & Berkeley
  - Stanford University Hospital, Palo Alto

## **VII. Accepted Insurance Plans**

Upon the closure of the cardiovascular surgery unit at St. Mary's, patients needing to be medically transferred will go to CPMC Van Ness or UCSF Parnassus, the closest hospitals to St. Mary's Medical Center. During the July 16, 2019 Health Commission hearing, a question was raised whether patients would remain in network should they be transferred or referred to CPMC or UCSF for cardiovascular

surgery services. After a review of accepted insurance plans at St. Mary's, all but one plan<sup>3</sup> are accepted by both CPMC and UCSF. Specifically, Medicare, Medi-Cal, and Chinese Community Health Plan are accepted by both CPMC and UCSF.

### **VIII. Hospital Capacity**

St. Mary's has stated that they have had discussions with both UCSF and CPMC about the closure of their cardiovascular surgery unit. Both UCSF and CPMC are knowledgeable of the case volume seen annually at St. Mary's and are prepared to take on these patients. According to data from the California Office of Statewide Health Planning and Development, both CPMC and UCSF have significantly higher volumes of cardiovascular surgery patients compared to St. Mary's. CPMC averages 220 cardiovascular surgery cases annually, while UCSF averages 357 (Parnassus) and 300 (Mission Bay) surgery cases annually.

The memo provided to the Health Commission dated July 10, 2019 includes the formal transfer protocol. In the event of a patient needing to be medically transferred from St. Mary's Medical Center to another hospital, St. Mary's has adopted an acceptable practice of securing an agreement with ECMO PRN LLC, an ambulance service that provides ECMO transfers to CPMC or UCSF, the closest hospitals to St. Mary's Medical Center. As a part of the formal agreement, both CPMC and UCSF were consulted.

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<sup>3</sup> Easy Choice – A Medicare Advantage Plan is not listed by CPMC or UCSF as an accepted plan, however, other Medicare Advantage plans are accepted by both CPMC and UCSF.

**HEALTH COMMISSION  
CITY AND COUNTY OF SAN FRANCISCO  
Resolution No. \_\_\_\_**

**DETERMINING THAT THE CLOSURE OF THE CARDIOVASCULAR SURGERY PROGRAM AT ST. MARY'S MEDICAL CENTER WILL/WILL NOT HAVE A DETRIMENTAL IMPACT ON HEALTH CARE SERVICES IN THE COMMUNITY.**

WHEREAS, St. Mary's Medical Center ([SMMC](#)), a non-profit hospital and a part of Dignity Health, is an acute care hospital in San Francisco; and

WHEREAS, On April 29, 2019, St. Mary's notified the Health Commission of its cardiovascular surgery program closure, effective July 31<sup>st</sup>, 2019; and

WHEREAS, To be in compliance with the Community Health Care Planning Ordinance (Proposition Q), private hospitals in San Francisco are required to notify the Health Commission 90 days prior to service reductions or lease, sales or transfers of management; and

WHEREAS, Cardiovascular disease is the leading cause of death for both men and women in the United States; and

WHEREAS, ~~approximately 5.4% of San Francisco adults have been told that they have any kind of heart disease~~[Cardiovascular disease accounts for 25% of all San Francisco resident deaths](#); and

WHEREAS, The highest rates of hospitalization and emergency room visits due to cardiovascular disease in San Francisco is amongst residents in the southeast half of the city, among those who live in households earning less than 300% of the Federal Poverty Level, and in zip codes 94102 (Tenderloin), 94103 (South of Market), 94124 (Bayview-Hunters Point), and 94130 (Treasure Island); and

WHEREAS, Cardiovascular surgery is a procedure that most often takes place after age 60; and

WHEREAS, The greatest population growth in San Francisco is expected to be among the 65-plus age group, which is estimated to increase from 15.7% to 29% of the total San Francisco population by 2060; and

WHEREAS, Medical trends indicate that a combination of increased demand for cardiothoracic surgeons and declining enrollment in cardiovascular specialties by medical students could lead to a significant shortage in skilled cardiovascular specialists and services; and

[WHEREAS, Coronary Artery Bypass Grafting \(CABG\) remains the "gold standard" and most common form of cardiovascular surgery performed today worldwide](#); and

[WHEREAS, The cardiovascular surgery program at St. Mary's was once the leading open-heart hospital in San Francisco and 20 years ago completed approximately 1,200 cardiovascular surgeries annually](#); and

[WHEREAS, The highest proportion of St. Mary's cardiovascular surgery patients are Asian \(47%\), which is proportionally higher than the Asian population in the city of San Francisco \(35.9%\)](#); and

WHEREAS, The cardiovascular surgical team at St. Mary's has performed an average of 30 cardiovascular surgeries per year; and

~~WHEREAS, The cardiovascular surgical team at St. Mary's Medical Center (SMMC) has performed an average of 30 cardiovascular surgeries per year, this includes: coronary artery, coronary artery bypass graft (CABG), and valve replacements; and~~

WHEREAS, Other San Francisco hospitals with cardiovascular surgery programs average between 200 and 600 cardiovascular surgeries annually; and

WHEREAS, Studies have shown that hospitals with low-volume cardiovascular surgery cases are associated with poor patient outcomes; and

WHEREAS, St. Mary's made two attempts to bolster cardiovascular surgical volumes, both of which failed; and

WHEREAS, St. Mary's will continue to provide cardiac care at their campus including comprehensive catheterization procedures in their Cardiac Catheterization Lab, cardiac testing, electrophysiology studies, nuclear cardiology, peripheral vascular studies, cardiac rehabilitation, arrhythmia management, and their advanced treatment for heart attack and stroke; and

WHEREAS, The closure of the cardiovascular surgery program may have residual impacts on the type and complexity of cases able to be seen by remaining cardiologists at St. Mary's; and

WHEREAS, Cardiologists at St. Mary's will refer their patients to surgeons at San Francisco and greater Bay Area surgical facilities within 50 miles of SMMC; and

WHEREAS, St. Mary's has adopted a formal procedure for cardiovascular patients who need to be medically transferred from SMMC to CPMC or UCSF, the closest hospitals to SMMC; and

WHEREAS, Both UCSF and CPMC accept insurance plans currently accepted by St. Mary's, including Medicare, Medi-Cal, and Chinese Community Health Plan; and

~~WHEREAS, Cardiologists at St. Mary's will refer their patients to surgeons at San Francisco and greater Bay Area surgical facilities within 50 miles of SMMC; and~~

~~WHEREAS, St. Mary's has adopted a formal procedure for cardiovascular patients who need to be medically transferred from SMMC to CPMC or UCSF, the closest hospitals to SMMC; and~~

WHEREAS, With the closure of St. Mary's cardiovascular surgery program, cardiovascular surgery services will continue to be available in San Francisco at UCSF (Parnassus & Mission Bay), CPMC (Van Ness), and Kaiser Foundation Hospital; and

WHEREAS, In accordance with Proposition Q, the San Francisco Health Commission held public hearings on July 16, 2019 and August 6, 2019; and

NOW, THEREFORE, BE IT RESOLVED, That with the closure of St. Mary's cardiovascular surgery program, there will be four other hospitals in San Francisco that provide cardiovascular surgery services; and



~~FURTHER RESOLVED~~NOW, THEREFORE, BE IT RESOLVED, The reduction in cardiovascular surgical services coupled with a growing older adult population will lead to an increased need for cardiovascular services and interventions in San Francisco; and be it

FURTHER RESOLVED, The closure of the cardiovascular surgery program at St. Mary's Medical Center may limit the type and complexity of patients able to be seen by the remaining cardiology physicians at St. Mary's, which in turn impacts patient care; and

FURTHER RESOLVED, The closure of the cardiovascular surgery program at St. Mary's Medical Center **will/will not** have a detrimental impact on the health care services in the community. ~~and~~

I hereby certify that the San Francisco Health Commission at its meeting of August 6, 2019 adopted the foregoing resolution.

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Mark Morewitz  
Executive Secretary to the Health Commission

**HEALTH COMMISSION  
CITY AND COUNTY OF SAN FRANCISCO  
Resolution No. \_\_\_\_**

**DETERMINING THAT THE CLOSURE OF ST. MARY'S SPINE CENTER WILL/WILL NOT HAVE A  
DETRIMENTAL IMPACT ON HEALTH CARE SERVICES IN THE COMMUNITY.**

WHEREAS, St. Mary's Medical Center, a non-profit hospital and a part of Dignity Health, is an acute care hospital in San Francisco; and

WHEREAS, On April 29, 2019, St. Mary's notified the Health Commission of its plan to close the Spine Center by July 31<sup>st</sup>, 2019; and

WHEREAS, To be in compliance with the Community Health Care Planning Ordinance (Proposition Q), private hospitals in San Francisco are required to notify the Health Commission 90 days prior to service reductions or lease, sales or transfers of management; and

WHEREAS, The Spine Center is a 1206(d) licensed outpatient clinic jointly operated by St. Mary's and a single physician practice, the SF Spine Group; and

[WHEREAS, The Spine Center is known as San Francisco's premier Spine Center; and](#)

WHEREAS, The Spine Center sees an average of approximately 1,800 patients per year; and

WHEREAS, In March 2019, the SF Spine Group notified St. Mary's that it will no longer staff the Spine Center and will be moving their physician practice to a private office leased by and located on St. Mary's Medical Center campus; and

WHEREAS, St. Mary's is unable to provide ongoing physician staffing for the Spine Center which has necessitated its closure; and

WHEREAS, The SF Spine Group will continue to practice on St. Mary's Medical Center campus and will provide the same level of care to the same number of patients, specifically:

- The Group will carry over the same insurance contracts and will continue to accept patients from the current payor mix including Medi-Cal,
- The Group will maintain the capacity/volume of patients seen,
- The Group plans to sustain the current levels of services,
- The Group will continue outpatient spine services and continuity of care to existing patients,
- The Group will still be available to the community in an on-SMMC campus medical office,
- Orthopedic support will continue to be provided in a clinic setting in the Sister Mary Philippa Clinic (a separate 1206(d) outpatient clinic with comprehensive services); and

WHEREAS, There is not an anticipated interruption or change in health care services provided to previous or current patients of the Spine Center; and

WHEREAS, Approximately It is not known whether the SF Spine Group will retain all St. Mary's non-physician employees in the new clinic; and

WHEREAS, St. Mary's will attempt to re-assign affected employees and mitigate any lay-offs; and

WHEREAS, In accordance with Proposition Q, the San Francisco Health Commission held public hearings on July 16, 2019 and August 6, 2019; and

NOW, THEREFORE, BE IT RESOLVED, [Contingent upon the SF Spine Group maintaining the level of care currently provided through the Spine Center at the new outpatient clinic; and be it](#)

[FURTHER RESOLVED, On the condition t](#)hat the closure of the Spine Center alongside the opening of the SF Spine Group's clinic at St. Mary's Medical Center will not cause a reduction or alteration of health services currently provided in [the City of](#) San Francisco; and

FURTHER RESOLVED, The closure of the Spine Center at St. Mary's Medical Center **will/will not** have a detrimental impact on the health care services in the community; and

[FURTHER RESOLVED, The Health Commission requests that St. Mary's Medical Center report final hiring decisions and information on affected employees back to the Commission.](#)

I hereby certify that the San Francisco Health Commission at its meeting of August 6, 2019 adopted the foregoing resolution.

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Mark Morewitz  
Executive Secretary to the Health Commission