



HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

ADMINISTRATIVE APPLICATION – CERTIFICATE OF NEED PROGRAM

Application Number: #07-16A

Applicant: Hilo Medical Center
1190 Waianuenue Avenue
Hilo, Hawaii 96720
Phone: 808 974-4700

Project Title: Addition of diagnostic cardiac catheterization service

Project Address: same

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1. TYPE OF ORGANIZATION: (Please check all applicable)

- Public '07 MAY 15 AIO :54
- Private _____
- Non-profit _____
- For-profit _____
- Individual _____
- Corporation
- Partnership _____
- Limited Liability Corporation (LLC) _____
- Limited Liability Partnership (LLP) _____
- Other: _____

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2. PROJECT LOCATION INFORMATION

A. Primary Service Area(s) of Project: (please check all applicable)

- Statewide: _____
- O`ahu-wide: _____
- Honolulu: _____
- Windward O`ahu: _____
- West O`ahu: _____
- Maui County: _____
- Kaua`i County: _____
- Hawai`i County:

3. DOCUMENTATION (Please attach the following to your application form):

- A. Site Control documentation (e.g. lease/purchase agreement, DROA agreement, letter of intent) **N.A., THIS IS THE EXISTING SITE FOR HILO MED. CNTR**
- B. A listing of all other permits or approvals from other government bodies (federal, state, county) that will be required before this proposal can be implemented (such as building permit, land use permit, etc.) **N.A.**
- C. Your governing body: list by names, titles and address/phone numbers **ATT. A**
- D. If you have filed a Certificate of Need Application this current calendar year, you may skip the four items listed below. All others, please provide the following:
 - Articles of Incorporation **ATT. B**
 - By-Laws
 - Partnership Agreements
 - Tax Key Number (project's location)

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4. **TYPE OF PROJECT.** This section helps our reviewers understand what type of project you are proposing. Please place an "X" in the appropriate box.

	Used Medical Equipment (over \$400,000)	New/Upgraded Medical Equip. (over \$1 million)	Other Capital Project (over \$4 million)	Change in Service	Change in Beds
Inpatient Facility				X	
Outpatient Facility					
Private Practice					

5. **BED CHANGES.** Please complete this chart only if your project deals with a change in your bed count and/or licensed types. Again, this chart is intended to help our reviewers understand at a glance what your project would like to accomplish. Under the heading "Type of Bed," please use only the categories listed in the certificate of need rules.

Not applicable. There are no bed changes.

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6. PROJECT COSTS AND SOURCES OF FUNDS

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A. List All Project Costs:

AMOUNT:

1.	Land Acquisition	ST. HENRI PLANNING & DEV. AGENCY	_____
2.	Construction Contract		_____
3.	Fixed Equipment		_____
4.	Movable Equipment (upgrade existing eqpt)		<u>\$ 500,000</u>
5.	Financing Costs		_____
6.	Fair Market Value of assets acquired by lease, rent, donation, etc.		_____
7.	Other: (recruitment, training, inventory, etc.)		<u>\$ 176,514</u>
8.	Working capital		<u>\$ 187,080</u>
9.	Contingency		<u>\$ 86,359</u>

TOTAL PROJECT COST: \$ 949,953

B. Source of Funds

1.	Cash	_____
2.	State Appropriations	<u>\$ 650,000</u>
3.	Other Grants	_____
4.	Fund Drive	_____
5.	Debt	<u>\$ 299,953</u>
6.	Other: _____	_____

TOTAL SOURCE OF FUNDS: \$ 949,953

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7. **CHANGE OF SERVICE:** If you are proposing a change in service, then please briefly list what services will be added/modified. Be sure to include the establishment of a new service or the addition of a new location of an existing service. Please reference the Certificate of Need Rules Section 11-186-5 for the categories of services. If you are unable to determine which category best describes your project, please consult with agency staff.

addition of diagnostic cardiac catheterization service (Sec. 11-186-5(4)(B))

8. **IMPLEMENTATION SCHEDULE:** Please present a projected time schedule for the completion of this project from start to finish. Include all of the following items that are applicable to your project:

See page 7

- a) Date of site control for the proposed project,
- b) Dates by which other government approvals/permits will be applied for and received,
- c) Dates by which financing is assured for the project,
- d) Date construction will commence,
- e) Length of construction period,
- f) Date of completion of the project,
- g) Date of commencement of operation

Please remember that the Agency does monitor the implementation of Certificates approved. Non-implementation of a project as described in your application may result in a fine and/or withdrawal of the certificate of need.

9. **EXECUTIVE SUMMARY:** Please present a brief summary of your project. In addition, provide a description of how your project meets each of the certificate of need criteria listed below. If a new location is proposed, please attach an easy to read map that shows your project site.

See page 7

- a) Relationship to the Hawai'i Health Performance Plan (H2P2), also known as the State of Hawai'i Health Services and Facilities Plan.
- b) Need and Accessibility
- c) Quality of Service/Care
- d) Cost and Finances (include revenue/cost projections for the first and third year of operation)
- e) Relationship to the existing health care system
- f) Availability of Resources.

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10. Eligibility to file for Administrative Review. This project is eligible to file for Administrative review because: (Check all applicable)

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- It involves bed changes, which will have a capital expense of \$1,000,000 or less, and which will have an increased annual operating expense of less than \$500,000.
- It involves service changes which will have a capital expense of \$1,000,000 or less, and which will have an increased annual operating expense of less than \$500,000.
- It is an acquisition of a health care facility or service, which will result in lower annual operating expenses for that facility, or service.
- It is a change of ownership, where the change is from one entity to another substantially related entity.
- It is an additional location of an existing service or facility.
- The applicant believes it will not have a significant impact on the health care system.

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8. Implementation Schedule

Equipment upgrades January 1, 2008-March 31, 2008
Staff training '07 MAY 15, 2008-April 30, 2008
Service begins July 1, 2008

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9. Executive Summary

Hilo Medical Center (HMC) proposes to establish diagnostic cardiac catheterization services at its Hilo facility. Currently there is no such service on the Island of Hawai'i.

HMC is preparing a plan to expand and improve its entire range of vascular services. The plan will include therapeutic as well as diagnostic cardiac catheterization (as well as other vascular services.) However, the entire plan will take some time to develop and finance. Therefore, this application is only for the diagnostic cardiac catheterization component of the plan, an important service which can be implemented rather quickly and inexpensively within our existing facilities. HMC acknowledges that an additional CON will be required for therapeutic cardiac catheterization.

Cardiac catheterization involves the passage of a catheter (a thin flexible tube) into the right or left side of the heart. Diagnostic cardiac catheterization allows for the detection of the location and extent of the blockage or obstruction in the coronary arteries related to coronary heart disease (CHD).

As the largest acute care hospital on the island, HMC plays a key role in the provision of health care on the Big Island. Currently there is no diagnostic cardiac catheterization service available on-island, which means patients needing such service have to fly to Honolulu, or do without. Those requiring emergency transport must wait for the air ambulance, which means hours between the onset of the emergency and treatment. Delayed treatment risks diminished clinical outcomes, and, sometimes, death.

We estimate that in 2005, approximately 812 diagnostic catheterization procedures were performed by O'ahu facilities on Big Island patients. HMC projects that it will perform 350 procedures in the first year of operation, increasing to 500 in the second year.

We believe that there is little question about the need, quality, economics and safety of the proposed diagnostic service.

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a. **Relationship to the Hawaii Health Performance Plan (H2P2), also known as the State of Hawaii Health Services and Facilities Plan.**

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The proposal is consistent with the H2P2-stated goals and objectives for realizing the Hawai'i health care vision. As proposed in the application, the timely provision of diagnostic cardiac catheterization services has the demonstrated ability to reduce morbidity and mortality for patients with CHD, allowing this growing patient population to live a longer, better quality of life. Local provision of this service also translates to more equitable and effective access for the Big Island community, helping to reduce health disparities among Hawaii residents. While the proposed service itself proves valuable in improving clinical outcomes, cost-effectiveness can also be realized. Reduced hospitalization periods and improved overall health lead to cost savings for both patient and provider.

This proposal is also consistent with the provisions of the "Hawai'i County (Big Island) Subarea Values and Priorities" of the H2P2 (see pps. III-12 to III-16). Some highlights:

- Page III-13. "Perceived Gaps in Services." "c. Specialist services. Including . . . invasive cardiology."
- Page III-14. "Critical and Essential Services." "e. Specialty Care. Cardiology."
- Page III-15. "5. Working Plans." "a. Plan 1 . . . Acute Care: adequate facilities, comprehensive diagnostics; access to specialty services."

The H2P2 establishes a standard providing that a new cardiac catheterization service/lab should achieve a minimum of 750 diagnostic-equivalent cardiac catheterization procedures by the third year of operation. HMC conservatively estimates that it will be providing 650 such procedures by the third year. Although this projection is slightly below the H2P2's threshold, it is a conservative projection and could well be exceeded and the threshold surpassed.

Even if the threshold is not met, there are no other such services available on the Big Island, so that the proposal would meet the plan's provision "In each case where sub-optimum utilization is proposed, the benefits – in the form of improved access for the service area(s) population combined with significant improvement in quality and/or significant reduction in price to the public – clearly outweigh the cost to the community of duplicating or under-using services, facilities, or technology."

b. **Need and Accessibility**

Need. No cardiac catheterization services of any kind are available on the Island of Hawai'i, which had an estimated population in 2005 of 163,000

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(Source: DBEDT). Some generally accepted need projection formulas assume a need of 10 or 13 procedures per 1000 population. These then would predict a 2007 need of between 1,685 and 2,191 diagnostic procedures. (See Table B-1 below). For comparison purposes, Table B-1 also shows utilization projections on line 4.

STATE OF HAWAII
DEPARTMENT OF HEALTH

**TABLE B-1
ISLAND OF HAWAII
DIAGNOSTIC CARDIAC CATHETERIZATION PROCEDURES
NEED AND UTILIZATION PROJECTIONS.**

	2005	2007	2008	2009	2010
1. County Population*	163,000	168,500	171,250	174,000	176,750
2. Dx caths needed @10/1000 pop		1,685	1,713	1,740	1,768
3. Dx caths needed @13/1000 pop		2,191	2,226	2,262	2,295
4. Projected utilization			350	500	650

*DBEDT projections for 2005 and 2010, assume annual increase of 2,750 for intervening years

In 2005, about 812 diagnostic procedures "outmigrated" from the Big Island to O`ahu. (This estimate was made by John Goodman and Associates (JG&A) based on DRG categories and using data from the Hawaii Health Information Corporation).

These numbers clearly demonstrate the need for a diagnostic cardiac catheterization service to be established on the Big Island. We do not expect to meet the entire need. We acknowledge that travel times can be long on the island, and that many patients from distant areas such as West Hawai'i are likely to continue to seek service on O`ahu. However, HMC is the major acute care provider on the island and in time will be able to meet a majority of the island's needs. As the program matures, we expect to attract and serve more patients from all over the island.

Utiliization. HMC projects that it will be able to begin providing cardiac catheterization service in 2008. As shown Table B-2 below, we project that we will do a total of 350 procedures in the first year of operation, increasing to 650 in the third year. These estimates for the first three years of a ramp-up period are conservative, and could be exceeded.

**TABLE B-2
DIAGNOSTIC CARDIAC CATHETERIZATION VOLUME PROJECTIONS
INPATIENT AND OUTPATIENT**

	2008	2009	2010
Inpatient	140	200	260
Outpatient	210	300	390
Total	350	500	650

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The H2P2 calls for a minimum of 750 diagnostic-equivalent procedures by the third year of operation. Our projection (650) is somewhat below this threshold. However, we do project reaching 791 procedures in the fourth year of operation (2011). Further, we believe our proposal clearly meets the exemption provision on page II-5 of the H2P2. "In each case where sub-optimum utilization is proposed, the benefits – in the form of improved access for the service area(s) population combined with significant improvement in quality and/or significant reduction in price to the public – clearly outweigh the costs to the community of duplicating or under-using services, facilities, or technology." We believe the accessibility to service is obviously improved by making it available on-island. The overall quality of health services on the Big Island is improved simply by having the service immediately accessible. Costs to the public are reduced by eliminating the expense of having to fly to O`ahu.

Accessibility. Big Island access to diagnostic cardiac catheterization services is now severely limited by its geographic isolation. Since there are no such services yet available on-island, people in need of the service now must travel off-island, usually to Honolulu. Usually, this involves the expense of flying to Honolulu, and at least one day away from home.

The cardiac catheterization services at HMC will be available to all patients, regardless of income, race or ethnicity, gender, age, or disability. This proposal will, in fact, improve accessibility to all residents of the Big Island by eliminating the need to fly to O`ahu.

c. Quality of Service/Care

Hilo Medical Center is certified by Medicare and Medicaid, and has a history of providing quality care.

The quality of care for Big Island residents will be vastly improved under this proposal simply by establishing cardiac catheterization service on the island. The increased access to services will result in more rapid response time to acute coronary syndrome (ACS) and increased patient safety. Hospitalization stays will be shortened and outcomes will be enhanced through diminished morbidity and mortality. Formalized protocols for transfer to a cardiac surgical facility will be established in the event that interventional catheterization or surgery is called for.

Policies and procedures, as well as clinical protocols, will be established for this service. Staffing ratios will be established, and all registered nurses and technologists will meet clinical certification and continuing education

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requirements. All cardiologists will be licensed and certified by the American Board of Cardiology.

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d. Cost and Finances

The capital cost of the proposal will be \$949,953. Capital funding is available through State appropriations from the legislature and debt financing. Exhibit D (attached) shows that the project is financially feasible. That is, the operating revenues will exceed operating expenses. In 2008 we project a total net income of \$129,813, growing to \$806,723 in 2010.

Big Island patients will no longer have to travel to O`ahu for service, thus saving the travel-related expenses.

e. Relationship to the Existing Health Care System

The proposal will strengthen the existing health care system by filling a critical gap in care delivery. Dependence on medical transport and Oahu facilities is reduced, and efficient access to safe, effective diagnostic and interventional services will be made available to the Big Island community. The proposal will positively affect the long-term health of the community.

f. Availability of Resources

Both the financial and personnel resources needed to implement the proposal are available. As noted above, the capital funds are available through appropriations and debt financing and the revenue generated will cover the operating expenses.

For the first three years of operation the "cath lab" will need the following staff:

<u>Staff</u>	<u>FTE</u>
Cath lab manager	1.00
RN	2.00
Tech	2.00
Housekeeping	1.00
<u>Reception/Register</u>	<u>1.00</u>
Total	7.00

We acknowledge that qualified staff are in great demand. However, we will be able to fill some of the positions by training existing staff, and we already have staff who have worked in similar programs in other facilities. Further, the numbers are small so we are confident that we can recruit whatever new staff are necessary.