

Application for Permit


Imaging Associates of Providence, LLC

Mat-Su Valley Imaging Facility
Anchorage Abbott Road Imaging Facility

Submitted to:

Alaska State Health Planning and Development Agency

January, 2008

	CERTIFICATE OF NEED APPLICATION APPLICANT IDENTIFICATION AND CERTIFICATION OF ACCURACY	
1. Applicant Identification		
Facility Name Imaging Associates of Providence, LLC	Medicaid Provider # MDG048 Anchorage MDG0481 Mat Su	
Facility Address (Street/City/State/Zip Code) Imaging Associates of Providence, LLC 2000 Abbott Road Anchorage, AK 99507 2820 S. Woodward Loop Palmer, AK 99645	Medicare Provider # K160618_____	
Name and mailing address of organization that operates the facility (if different from above) Imaging Associates of Providence, LLC 3701 E. Tudor Rd. Ste. 205 Anchorage, AK 99507		
Facility Administrator (Name, title, mailing address, including City/State/Zip Code) Leonard Sisk, MD Medical Director Imaging Associates of Providence, LLC 3701 E. Tudor Rd. Ste 205 Anchorage, AK 99507	Telephone 907.562.1211 Facsimile 907.562.1194 E-mail Lensisk@yahoo.com	
Applicant (Name, title, mailing address, including City/State/Zip Code) Leonard Sisk, MD, Medical Director Imaging Associates of Providence, LLC 3701 E. Tudor Rd. Ste 205 Anchorage, AK 99507	Telephone 907.562.1211 Facsimile 907.562.1194 E-mail Lensisk@yahoo.com	
Principal Contact Person (Name, title, physical address, mailing address, including City/State/Zip Code) Leonard Sisk, MD Medical Director Imaging Associates of Providence, LLC 3701 E. Tudor Rd. Ste 205 Anchorage, AK 99507	Telephone 907.562.1211 Facsimile 907.562.1194 E-mail Lensisk@yahoo.com	
2. Ownership Information		
A. Type of Ownership (check applicable category) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> For profit: individual <input type="checkbox"/> For profit: partnership <input type="checkbox"/> For profit: corporation </div> <div> <input type="checkbox"/> Not for profit: government <input type="checkbox"/> Not for profit: corporation <input checked="" type="checkbox"/> Other (specify): <u>joint venture partnership</u> </div> </div> B. List of all Owners (Page 2 of application) C. Accreditation Information (Page 2 of application)		
3. Agreement to participate in the Uniform Statewide Reporting System		
I hereby agree to participate in the uniform statewide reporting system required under AS 18.07.101 when requested to do so under 7 AAC 07.105(c) .		
4. Certification of Accuracy by Certifying Officer of the Organization		
I hereby certify that the information contained in this application, including all documents that form any part of it, is true, to the best of my knowledge and belief. I agree to provide, within 60 days from receipt of a request from the department under 7 AAC 07.050(b), any additional information needed by the department to make a decision.		
Name Leonard Sisk, MD (Erik Maurer, MD, Acting Director)	Title Medical Director	
Signature	Date	

Section I.
General Applicant Information

For Part 2.B. of the application form, provide the following ownership information under each requirement, using as much space as necessary to provide complete information:

- (1) For individual owners and partnerships, list the names, titles, organizational name, mailing and street addresses, and telephone and facsimile numbers of the owner or partners.**
- (2) For corporations, list the names, titles, and addresses of the corporate officers and Board of Directors. If the facility is a subsidiary of another company or has multiple owners, provide the names and addresses of the all of companies that have ownership in the facility.**
- (3) For governmental or other nonprofit owners, list the names and addresses of hospital board members.**

2B(2) Imaging Associates of Providence LLC is a for-profit joint venture partnership between Interventional and Diagnostic Radiology Consultants, LLC (IDRC), a team of board-certified Alaskan radiologists, and Providence Health System-Washington d.b.a. Providence Alaska Medical Center. IDRC owns 50% of the venture, i.e., individual physicians do not own shares directly. Providence Health System-Washington d.b.a. Providence Alaska Medical Center owns a 50% interest in the venture.

The members of Interventional and Diagnostic Radiology Consultants are: Denise Farleigh, MD; Leonard Sisk, MD; Chakri Inampudi, MD; Erik Maurer, MD; Chris Kottra, MD; and David Moeller, MD

Table I.2 Imaging Associates of Providence Board of Managers
As of December 17, 2007

Name	Title	Address	Phone
Chris Kottra, MD	Physician	3200 Providence Dr. Anchorage, AK 99508	907-261-3641
Erik Maurer, MD	Physician	3200 Providence Dr. Anchorage, AK 99508	907-261-3641
Leonard Sisk, MD	Physician	3200 Providence Dr. Anchorage, AK 99508	907-261-3641
Colleen Bridge	Assistant Administrator, Affiliations & Partnerships	3760 Piper Street Anchorage, AK 99508	907-261-3035
Anthony Dorsch	Asst. CFO Alaska Region	3760 Piper Street Anchorage, AK 99508	907-261-3012
Joel Gilbertson	Regional Director of Strategic Development	3760 Piper Street Anchorage, AK 99508	907-743-2784

For Part 2.C. of the application form, provide the following information:

Is this facility accredited or certified by a recognized national organization? ☒ **Yes** ☐ **No**

IAP is accredited by the American College of Radiology for Mammography services.

Section I.
General Applicant Information

If yes, identify the organization, the date of accreditation or certification, and attach as an appendix to this application a copy of the most current accreditation or certification.

See Appendix A

Section II.

Summary Project Description

Provide a one-page summary of the proposed project.

The proposed project established new physician offices providing imaging services in two locations, one at 2000 Abbott Road in south Anchorage and another in the Mat-Su Valley at 2280 South Woodworth Loop in Palmer. These facilities are operated, in space owned by Providence Alaska Medical Center, and leased by Imaging Associates of Providence, LLC. IAP employs a team of highly trained technologists and professional clerical staff dedicated to providing patients with high quality imaging exams in a caring, comfortable and convenient environment. Professional radiology services are rendered through a professional services agreement with Alaska Radiology Associates (ARA), a group of nine board-certified radiologists. For purposes of this application ARA radiologists will be referred to as IAP physicians.

IAP is a physician office and, as such, it is exempt from the requirement to seek and be granted a Certificate of Need to continue in operation. This application is made pursuant to the Commissioner's order and not does constitute a waiver of IAP's position that it constitutes a physician's office. Moreover, none of the contents of this application should be construed as being inconsistent with the pleadings in support of IAP's Motion for Summary Judgment, including the Proposal for Action, and those pleadings are incorporated by reference in the instant application.

The IAP offices were completed and began operation in June 2006. When facilities were constructed, a statute made physicians' office exempt from the certificate of need requirements and a regulation made imaging facilities not falling within a particular federal billing designation exempt as well.

Both the statute and the regulation clearly applied to the IAP facilities. The Department of Health and Social Services (DHSS) twice determined (May 4, 2006 and June 14, 2006) that IAP's Mat-Su Valley facility is not a health care facility for the purposes of certificate of need regulation.

After a ruling in another case¹, a third party requested a determination concerning IAP's Abbott Road operation. After a series of letters, the commissioner in effect rescinded DHSS previous determinations and concluded that the IAP facilities are required to apply for certificates of need. A subsequent administrative ruling upheld the commissioner's right to require that IAP apply for a certificate of need, which she did, in fact, require. That is how the present application, which seeks approval to construct and operate two facilities that have already been constructed and are currently in operation, has come to be submitted for review and determination.

Imaging is a fundamental patient management tool for physicians whose importance will grow over the next decade, when outpatient imaging jumps by an estimated 17%. This project offers extended and flexible scheduled hours. Walk-in appointments are welcome at both new

¹ IAP has asserted this ruling has no applicability to IAP offices.

Section II.

Summary Project Description

facilities for patients with a prescription for a standard medical x-ray study. To streamline care, a compact disk (CD) containing images from a patient's study is provided at the request of the referring physician. PACS, the picture archiving and communications system, will allow for rapid access to computerized images, which radiologists and clinicians can access from multiple locations.

The space within the facilities will not be leased to others. Services offered include an array of imaging examinations and image-guided interventional procedures. Diagnostic services provided are standard medical x-ray, magnetic resonance imaging (MRI), ultrasound, computed tomography (CT scan), Dexa scan (bone mineral/density scan), Galactography, NMR spectroscopy, Digital Mammography, and a variety of ultrasound-guided diagnostic procedures. Therapeutic procedures established include endovenous ablation of varicose veins, chemical sclerotherapy of varicose veins, and a variety of ultrasound-guided procedures.

The total cost of the project is \$12,753,154 financed with a combination of debt and equity. The Abbott Road facility opened in June 2006 in 4,654 square feet of space; while the Mat-Su site is 6,400 square feet and opened June 2006. A detailed listing of the equipment is shown in Section III.3.c.

IAP facilities increase patient access and care efficiency, while decreasing costs. The outpatient focus allows hospitals to concentrate on important inpatient and emergency services, thus increasing the overall efficiency of the healthcare delivery system.

This project results in more Alaskans being able to obtain appropriate, low-cost physician and related outpatient imaging services.

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- A. Proposed changes in service capacity. Provide either the number of beds, surgery suites, rooms, pieces of equipment, or other service.**

Type of Service	Current Capacity	Added, Expanded, or Replacement Capacity	TOTAL PROPOSED CAPACITY
DIAGNOSTIC AND DIAGNOSTIC IMAGING SERVICES			
CT Scanner	0	2	2
MRI	0	2	2
PET or PET/CT	0	0	0
Other Services (list)			
Mammography	0	2	2
Bone Densitometry	0	1	1
X-Ray / Radiography	0	2	2
THERAPEUTIC CARE			
Ultrasound/Procedure Rooms (Guided Interventional Radiology)	0	2	2
Radiation Therapy	0	0	0

- B. Provide a detailed narrative description of each service identified in "A" above, including the type of change (addition, expansion, conversion, reduction, replacement, elimination). Include, as appropriate, detailed information relative to the scope and level of service.**

The proposed project establishes diagnostic imaging and image guided therapeutic services in two locations, exclusively for outpatient ambulatory procedures. It does not change the current hospital bed capacity in the service area.

ARA RADIOLOGISTS

IAP renders radiology services through a professional services agreement with Alaska Radiology Associates. ARA consists of nine board-certified radiologists who cover every facet of radiology with imaging sub-specialists possessing experience and expertise in such areas as mammography with digital imaging, ultrasound, CT with 3-Dimensional Imaging, MRI, MRA, CTA, PET, nuclear medicine, and interventional radiology.

IAP employs a team of highly trained technologists and professional clerical staff dedicated to providing patients with high quality imaging exams in a caring, comfortable and convenient environment. Professional radiology services are rendered through a professional services agreement with Alaska Radiology Associates (ARA), a group of nine board-certified radiologists.

ARA radiologists are proud to offer a full spectrum of radiology services. IAP is the leader in bringing quality diagnostic and therapeutic radiology healthcare to Alaskans.

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IAP has often been the first to bring new technology to the state (and sometimes even the entire West Coast). ARA radiologists are board certified and have a broad spectrum of sub-specialized training which allows them to design and interpret studies specifically tailored to answering the medical question at hand. Additionally, many have been trained in invasive procedures in which the patient's body is entered (usually with a needle) to diagnose and treat illnesses.

IAP's outpatient imaging services offer a full range of diagnostic services, including standard medical x-ray, magnetic resonance imaging (MRI), ultrasound, computed tomography (CT scan), Dexa scan (bone mineral/density scan), Galactography, NMR spectroscopy, Digital Mammography and a variety of ultrasound-guided diagnostic procedures. Therapeutic procedures available include endovenous ablation of varicose veins, chemical sclerotherapy of varicose veins and a variety of ultrasound-guided therapeutic procedures.

We offer extended scheduled hours, are willing to open for emergencies, and walk-in appointments are welcome at both new facilities for patients with a prescription for a standard medical x-ray study. To streamline care, a compact disk (CD) containing images from a patient's study is provided at the request of the referring physician. At the same time, PACS, the picture archiving and communications system, allows for rapid access to computerized images, which radiologists and clinicians can access from multiple locations.

HOURS OF OPERATION

IAP is open for scheduled appointments Monday through Friday from 6 a.m. to 6 p.m., however, for patient convenience, several imaging appointments are available in the evening and on Saturdays, including MRI and mammography. In addition, our advanced access philosophy requires that we accommodate all patients on the day and time they prefer. We treat patients after hours on Saturdays and Sundays and we opened the Mat-Su facility to perform a patient examination on this past Christmas Eve.

SERVICES

IAP provides an array of diagnostic and therapeutic services to patients as referred by their health provider. Without prejudice, IAP honors orders from all licensed Alaska providers whose scope of practice includes the ordering of radiologic exams and treatments, including Physicians, Chiropractors, Naturopaths, Advanced Nurse Practitioner, and Physician Assistants.

To the best of our knowledge, IAP will offer several procedures for the first time to the residents of the Mat-Su area. These include Paracentesis and Thoracentesis.

In several other cases, while the procedure per se is not unique, the IAP equipment is, enhancing access to the procedure in question. Tesla (T) is the unit of measurement quantifying the strength of a

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magnetic field. The only 3.0 Tesla magnet in the State of Alaska is located at the IAP Abbott Road facility, while the Mat-Su site has the only 1.5 Tesla Open Bore magnet in the service area, and, as far as we know, in the State.

IAP is the first imaging center in Alaska to offer the new Siemens 3T Magnetom Trio. Employing sophisticated technology that has previously been confined to research facilities, the 3T Magnetom Trio is setting the new standard in medical imaging.

Prior to the 3 Tesla Machine, the high-field standard was 1.5 Tesla. The IAP Abbott Road scanner generates a magnetic field that is twice the strength of 1.5 Tesla machines and 10 to 15 times the strength of Low Field Open MRI scanners, such as those available at Alaska Open Imaging locations.

The magnetic field produced by our 3T Magnetom Trio MRI System yields exceptional anatomic detail. The increased image clarity revealed by 3T is particularly beneficial for pathological conditions involving the brain, spine, and musculoskeletal system.

3T MRI

The benefits of the 3T scanner extend to high-quality vascular imaging. In fact, and an important contribution to cost-control, 3T MR Angiogram studies may supplant the need for invasive interventional catheter studies.

Furthermore, the 3T Magnetom Trio is extremely efficient. Utilizing shorter scan times, the 3T machine maximizes patient comfort without compromising quality. The superb reliability of high-field MRI allows our board-certified radiologists to differentiate between benign and potentially hazardous medical conditions with confidence. This allows for earlier diagnosis and treatment, subsequently leading to more positive outcomes. In addition, insurance companies pay the same amount for an MRI, regardless of whether the exam is performed on a low-field or high-field magnet. The advantages of the IAP 3T magnet provide superior outcomes at no additional cost to the patient.

This unit provides spectroscopic imaging and spectral analysis of Na-23, P-31, C-13, O-17, Xe-129, Li-7, He-3 and others. The Siemens multinuclear spectroscopy analysis package performs water suppression, phase correction, apodization, zero filling, spectral transformation, base line correction, automatic and manual phase correction, curve fitting and peak labeling, and computation of relative metabolite concentration, with customizable settings.

Short Bore

The Mat-Su Valley facility uses the Siemens Magnetom Espree, a 1.5-Telsa high field MRI featuring a short bore (2 meter length). The unit is designed for larger and claustrophobic patients who are unable to tolerate traditional MRI gantries.

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Some patients are unable to have a successful MRI due to issues of size or claustrophobia. A relatively high percentage of the people seen by IAP physicians are overweight, and many need sedation to undergo an MRI, which means they have to stay longer. While open MRI systems address these personal patient issues, the magnetic field of open units is weaker, which results in inferior images.

A 1.5-Tesla MRI Short Bore unit can be used by all referral based medical specialties for adult and pediatric diagnostic imaging, and is 5 times stronger than the open MR units, resulting in higher definition and greater diagnostic utility.

The services that are available at our facilities include the following.

Diagnostic Procedures

- Bone Densitometry/DEXA
- Computed Tomography (CT)
- Galactography
- Musculoskeletal Radiology
- Magnetic Resonance Imaging
- NMR spectroscopy
- Mammography, Digital
- Ultrasound
- Ultrasound Imaging of the Breast
- A variety of ultrasound-guided diagnostic procedures
 - Core needle biopsy (of any superficial location)
 - Fine needle aspiration of the thyroid gland

Therapeutic Procedures

- Chemical sclerotherapy of varicose veins,
- Endovenous ablation of varicose veins
- Ultrasound-guided procedures of various types:
 - Abscess drainage (breast or other superficial location)
 - Breast or other cyst aspiration
 - Paracentesis
 - Thoracocentesis

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DETAILED DESCRIPTION OF SERVICES

▪ Bone Densitometry/DEXA

Bone density scanning, also called dual-energy x-ray absorptiometry (DXA or DEXA) or bone densitometry, is an enhanced form of x-ray technology that is used to measure bone loss. DEXA is today's established standard for measuring bone mineral density (BMD).

An x-ray (radiograph) is a painless medical test that helps physicians diagnose and treat medical conditions. Radiography involves exposing a part of the body to a small dose of ionizing radiation to produce pictures of the inside of the body. X-rays are the oldest and most frequently used form of medical imaging.

IAP radiologists most often perform DEXA on the lower spine and hips. Portable DEXA devices, including some that use ultrasound waves rather than x-rays, measure the wrist, fingers or heel and are sometimes used for screening purposes.

Uses - Bone Densitometry/DEXA

DEXA bone densitometry is most often used to diagnose osteoporosis, a condition that often affects women after menopause but may also be found in men. Osteoporosis involves a gradual loss of calcium, causing the bones to become thinner, more fragile and more likely to break.

DEXA is effective in tracking the effects of treatment for osteoporosis and other conditions that cause bone loss. The DEXA test can also assess an individual's risk for developing fractures.

Bone density testing is strongly recommended for the following patients:

- Post-menopausal woman not taking estrogen.
- Women with a personal or maternal history of hip fracture or smoking.
- Post-menopausal woman who is tall (over 5 feet 7 inches) or thin (less than 125 pounds).
- Men with clinical conditions associated with bone loss.
- Who use medications that are known to cause bone loss, including corticosteroids such as Prednisone, various anti-seizure medications such as Dilantin and certain barbiturates, or high-dose thyroid replacement drugs.
- With type 1 (formerly called juvenile or insulin-dependent) diabetes, liver disease, kidney disease or a family history of osteoporosis.
- With high bone turnover, which shows up in the form of excessive collagen in urine samples.
- Who have a thyroid condition, such as hyperthyroidism.

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- With a parathyroid condition, such as hyperparathyroidism.
- Who have experienced a fracture after only mild trauma.
- Who have had x-ray evidence of vertebral fracture or other signs of osteoporosis.

The Lateral Vertebral Assessment (LVA), a low-dose x-ray examination of the spine to screen for vertebral fractures that is performed on the DEXA machine, may be recommended for older patients, especially if:

- They have lost more than an inch of height
- Have unexplained back pain
- If a DEXA scan gives borderline readings

■ Computed Tomography (CT)

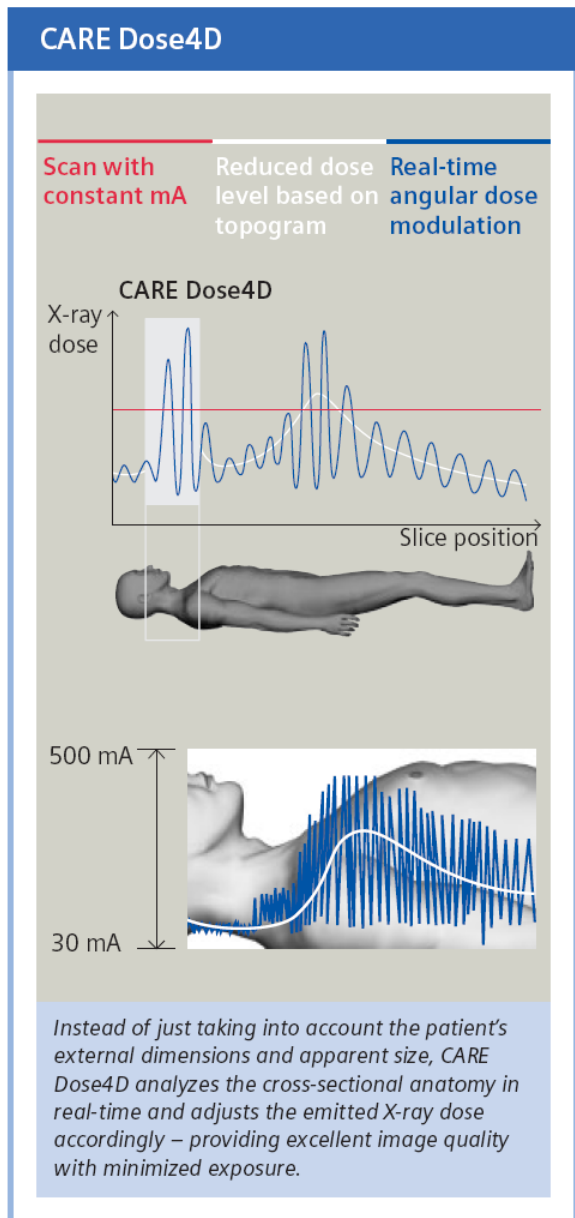
Computed Tomography (CT) is a diagnostic tool that combines x-rays with state of the art computer technology to produce cross-sectional

pictures of the body. High-resolution spiral computed tomography is offered for diagnostic studies of all parts of the body including chest, abdomen, and pelvis.

Computer Tomography is used by all referral-based medical specialties for adult and pediatric diagnostic imaging. CT images show the venous system, organs, bones, and tissue in great detail. In addition, CT scanning is used at IAP to guide biopsies of intra-abdominal organs as well as abscess drainages.

Virtual colonography can be performed as a result of recent FDA approval; CT is also useful for special cardiac and lung analysis, and Radiation therapy treatment planning. Procedures using CT are quick and painless; most only taking 15 to 30 minutes to complete.

IAP uses the Siemens' patented Straton X-ray tube, the world's first rotating envelope tube. This high performance tube has a direct anode cooling system and



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compact design that significantly shortens examination times and improves equipment performance. Additional performance features include TeraRecon 3 Dimensional visualization software to view scans. This scanner also includes unique low-dose, 40-slice CT scans, providing sensitivity to patient radiation.

Scanning with speed and efficiency is prerequisite for improving throughput and enjoying all the clinical benefits of ultra-fast scan times. Dose and contrast management are key areas where automation can save precious time, improve reliability and enhance clinical outcomes, especially for interventional procedures.

Automated real-time dose modulation and contrast media management offer two key benefits: they allow IAP radiologists to offer more patient-friendly exams with no compromise in diagnostic image quality.

The IAP Siemens CT units also use the Siemens CARE Dose4DTM, which provides a fully automated dose modulation workflow designed to deliver the lowest possible dose with the best possible image quality. The automated protocol facilitates a fast workflow, because it is not necessary to adapt protocols manually for each new patient.

Today's Multislice CT scanners are so fast that if the injection parameters are not adjusted, the scan will be completed before the entire volume of contrast is injected.

These shorter scan times create an opportunity to reduce the total amount of intravenous contrast administered, decreasing costs and improving patient care. Siemens' unique CARE Bolus CT software enables the improvement of planning procedures and diagnosis due to an optimized spiral scan start after contrast injection.

As soon as a predefined contrast enhancement threshold is reached, the diagnostic scan is triggered and begins after a short, preset delay.

In terms of workflow, CARE Bolus negates the need for a test bolus, facilitates contrast phase shaping, and the fully automated triggering protocol maximizes efficiency also for emergency exams.

Number of Units - 2

Location - Anchorage (1), Mat Su Valley (1)

- Galactography

Galactography is an x-ray examination that uses mammography, a low-dose x-ray system for examining breasts, and a contrast material to obtain pictures, called galactograms, of the inside of the breast's milk ducts.

The breast is composed primarily of three structures: fat, lobules (that make the milk) and milk ducts (that carry the milk from the lobule to the nipple). While mammography and magnetic resonance

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imaging (MRI) are excellent ways to image the breast, they cannot visualize the inside of the breast's milk ducts.

Uses - Galactography

The most common use of galactography is to evaluate a woman who has a bloody or clear discharge from her breast nipple and an otherwise normal mammogram. Galactography is typically not called for in women with the following conditions:

- A discharge that is milky, yellow, green, black or gray is usually not a cause for concern, especially if it comes from multiple ducts in the breast.
- A discharge that is from both breasts in a woman who has not had children may indicate a side effect from a drug, or may be related to a pituitary problem located in the brain.
- A minimal milky discharge from both breasts in a woman who has had children is not unusual, and only rarely is a cause for concern.

■ Musculoskeletal Radiology

X-Ray is the original field from which radiology developed, and is probably still the most commonly employed form of radiology. X-rays can be taken either as still images or moving pictures, and often take little time to complete. They are frequently used to complement other kinds of radiology, such as MRIs, Ultrasounds, and CT Scans.

The films created by X-rays show different features of the body in various shades of gray. The gray is darkest in those areas that do not absorb X-rays well; the grays are lighter in dense areas (like bones) that absorb more of the X-rays. Some X-ray exams improve visibility by using contrast, a range of substances which may be introduced into the patient by swallowing, injection, or enema.

In addition to standard bone radiographs, skeletal radiologic services include arthrography of all joints, CT, ultrasound, and MRI of the musculoskeletal system, and radiologically assisted needle aspiration of skeletal lesions. Bone biopsies are performed with either fine needle or core techniques. Epidural and nerve sheath injections of steroids are available for selected cases.

Temporomandibular joint imaging is done by either MRI or arthrography. Conventional tomography is available; however, more commonly spiral computed tomography is employed with or without multiplanar or three-dimensional reconstructions for musculoskeletal lesions.

■ Magnetic Resonance Imaging

Magnetic resonance imaging, or MRI, is a diagnostic imaging technology that obtains very detailed images of any body part or area without the need of x-rays. Instead, it uses very powerful magnetic properties, and a computer system to demonstrate via two or

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three-dimensional images if there is an injury or disease process evident.

For this procedure, the patient is placed within the MRI scanner containing a large cylinder-shaped magnet that is open on both ends. IAP is in the process of obtaining ACR Accreditation for both MR units. Procedures using MRI are virtually painless and involve no ionizing radiation.

Sensitivity - Importance of Magnet Strength

Because the intensity of nuclear magnetic resonance signals and, hence, the sensitivity of the technique depends on the strength of the magnetic field, the technique has advanced over the decades with the development of more powerful magnets. Advances made in audio-visual technology have also improved the signal-generation and processing capabilities of newer machines.

The IAP Abbott Road magnet is the most powerful unit in the state, while the Short Bore Open MR unit at the Mat-Su valley site is five times stronger than the Alaska Open Imaging Center open magnet.

Abbott Road Facility

Number of Units - 1

The Abbott Road facility houses the first and only 3-tesla strength magnetic resonance imaging (MRI) machine in Alaska. This MRI combines detail, speed and flexibility with Tim (total image matrix) and Whole Body Imaging in one session. Along with seamless integrated coils, the Magnetom Trio allows feet-first scanning for anatomy below the heart. There are no similar MRI scanners in Alaska - this is considered a new level of service and standard of care for medical imaging. This unit also has NMR spectroscopy capability.

Mat Su Valley Facility

Number of Units - 1

The Mat-Su Valley facility uses the Siemens Magnetom Espree, a



1.5-Tesla high field MRI featuring a short bore. The unit is designed for larger and claustrophobic patients who are unable to tolerate traditional MRI gantries. A 1.5-Tesla MRI Short Bore unit can be used by

"I AM A TECHNOLOGIST'S NIGHTMARE", says Gary Doyle. "I am claustrophobic and a big guy. With the MAGNETOM Espree I was able to make it through an MRI for the first time in my life."

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all referral based medical specialties for adult and pediatric diagnostic imaging, and is 5 times stronger than the open MR units, resulting in higher definition and greater diagnostic utility.

Some patients are unable to have a successful MRI due to issues of size or claustrophobia. A relatively high percentage of the people seen by IAP physicians are overweight, and many need sedation to undergo an MRI, which means they have to stay longer. While open MRI systems address these personal patient issues, the magnetic field of open units is weaker, which results in inferior images.

The Siemens MAGNETOM Espree Open Bore MRI redefines the personal space of the traditional MRI, but also gives images of quality equal to closed models. In this respect, the Espree unit is the best of the traditional and open worlds, boasting the powerful 1.5T field strength of the closed model, with a full one foot (30 cm) of head room. Thanks to the remarkably short 125 cm magnet, over 60% of typical clinical applications can be performed with the patient's head outside of the Open Bore; for those whose heads are inside, there are 12 additional inches of nose-to-ceiling space.

MAGNETOM Espree – A Powerful, New Openness in MRI

MAGNETOM Espree, the first 1.5 Tesla Open Bore magnetic resonance imaging system in the world, is making its debut at the 90th Scientific Assembly of the **Radiology Society of North America** (RSNA) in Chicago, November 28, 2004.

With the following features the MAGNETOM Espree provides an enhanced spectrum of applications to a broader circle of patients:

- compact magnet length of only 125 cm
- expanded 70 cm bore diameter
- 1.5 Tesla high-field power
- equipped with Tim™ (Total imaging matrix) technology
- design dimensions previously seen only in computed tomography systems

Thanks to its unique magnet design, the system offers more space for patients than any other conventional open system on the market.

For more than 60 percent of examinations, the patient's head remains outside the scanner – a significant benefit

to claustrophobic patients. And with a bore opening of 70 cm, it provides enough room for obese patients as well.

"All patients deserve the same access to high quality MRI technology. This imaging method is used in the diagnosis of and treatment planning for diseases of the musculo-skeletal system, diabetes, as well as cardiac and vascular diseases – all of which affect obese patients," said Dr. Heinrich Kolem, Head of the Magnetic Resonance Group at Siemens Medical Solutions. "The open MRI systems previously on the market could not keep up with today's high-field standard for image quality.

The new MAGNETOM Espree MRI system is in a league of its own. It offers greater patient comfort and high-field quality diagnostic images."



Source: Mayo Clinic and Siemens: Shaping the Future of Patient-Centric Healthcare Today (<http://64slice.usa.siemens.com/pdfs/Mayo%20Clinic's%20CT%20Innovations%20Center.pdf>)

The time it takes to complete the exam with MAGNETOM Espree is cut in half because the need for patient repositioning and coil changes is completely avoided. It also provides up to four times more signal-to-noise ratio compared to conventional open MRIs for superior image quality, even in the periphery. Contrast for viewing the secondary and tertiary vessels is excellent.

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The combination of Tim (Total imaging matrix) technology, the special matrix coils, a very wide bore, and a super short magnet results in patient comfort without forfeit of imaging quality.

- NMR spectroscopy

IAP radiologists use NMR spectroscopy at the Abbott Road location to obtain physical, chemical, electronic and structural information about molecules due to the chemical shift and Zeeman effect on the resonant frequencies of the nuclei. It is a powerful technique that can provide detailed information on the topology, dynamics and three-dimensional structure of molecules in solution and the solid state.

Most applications of NMR involve full NMR spectra, that is, the intensity of the NMR signal as a function of frequency. The technique uses short pulses of radio-frequency (centered at the middle of the NMR spectrum). Applying such a pulse to a set of nuclear spins simultaneously excites all the NMR transitions.

The IAP 3T magnet at the Abbott Road facility in Anchorage is equipped with NMR spectroscopy capability.

Multi-dimensional

Multi-dimensional nuclear magnetic resonance spectroscopy is a kind of FT-NMR in which there are at least two pulses and, as the scan is repeated, the pulse sequence is varied. In multidimensional nuclear magnetic resonance there will be a sequence of pulses and, at least, one variable time period. In three dimensions, two time sequences will be varied. In four dimensions, three will be varied.

The most abundant naturally-occurring isotopes of hydrogen and phosphorus, for instance, are both magnetically susceptible and readily useful for nuclear magnetic resonance spectroscopy. In contrast, carbon and nitrogen have useful isotopes that occur only in very low natural abundance.

Medical applications

The use of nuclear magnetic resonance best known to the general public is in magnetic resonance imaging for medical diagnosis. Biochemical information can also be obtained from living tissue via NMR Spectroscopy, using a technique known as in vivo magnetic resonance spectroscopy. These studies are possible because nuclei are surrounded by orbiting electrons, which are also spinning charged particles such as magnets and, so, will partially shield the nuclei.

The amount of shielding depends on the exact local environment. For example, a hydrogen bonded to an oxygen atom will be shielded differently than a hydrogen bonded to a carbon atom. In addition, two hydrogen nuclei can interact via a process known as spin-spin coupling, if they are on the same molecule, which will split the

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lines of the spectra in a recognizable way. Spectroscopy is especially useful in locating tumors.

▪ Digital Mammography

Mammography is a specific type of imaging that uses a low-dose x-ray system to examine breasts. A mammography exam, called a mammogram, is used to aid in the diagnosis of breast diseases in women.

Two recent enhancements to traditional mammography include digital mammography and computer-aided detection.

Digital mammography, also called full-field digital mammography (FFDM), is a mammography system in which the x-ray film is replaced by solid-state detectors that convert x-rays into electrical signals. These detectors are similar to those found in digital cameras. The electrical signals are used to produce images of the breast that can be seen on a computer screen or printed on special film similar to conventional mammograms. From the patient's point of view, digital mammography is essentially the same as the screen-film system.

Used in the detection of breast cancer, mammography has been shown to reduce death rates from breast cancer by at least 30 percent in women over age 50. Possessing several key advantages over traditional mammography, researchers believe that use of digital mammography could lead to a further decrease in deaths.

Advantages of Digital Mammography

- High quality images are available to view within seconds after exposure, and there is no longer the wait for films to be developed to be sure the images are usable. The digital machines chosen by IAP have state-of-the-art image acquisition, the highest quality image available on the market today.
- A digital mammogram takes as little as half the time of a film mammogram. It also allows for a quicker routine visit since technologists can check the images immediately after being obtained, without waiting for film processing.
- While the patient's experience of getting a mammogram isn't any different with the digital device, anxiety is lessened by not having to wait for the images to be developed.
- Digital mammography offers a better view of the breast, especially near the skin line, chest wall, and in women with all breast tissue types.
- Digital mammography allows the radiologist to manipulate the contrast, brightness and magnification levels of the image to better see abnormalities.
- Images can be digitally enhanced and manipulated for accurate diagnosis. The use of electronic manipulation and the ability to magnify the images will result in fewer patients needing to be called back.

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- The number of views needed for a diagnostic mammogram is reduced.
- If a second opinion is needed, the image can be sent electronically to a second doctor, and can then be printed on film for review.
- A recent multi-institutional trial concluded that Digital Mammography is superior to conventional screen film mammography in women with dense breasts, and for those under age 50.

The storage and retrieval of traditional films is a challenge. With FFDM, mammograms are acquired, processed and archived in a completely digital format, eliminating the need for film storage and gives easier access to the health care providers.

Computer - aided detection (CAD)

CAD systems use a digitized mammographic image that can be obtained from either a conventional film mammogram or a digitally acquired mammogram. The computer software then searches for abnormal areas of density, mass, or calcification that may indicate the presence of cancer. The CAD system highlights these areas on the images, alerting the radiologist to the need for further analysis. The addition of CAD is like a second pair of eyes for both routine and diagnostic studies. The combination of radiologists reading along with CAD has been shown to increase cancer detection rates.

The IAP full-field digital mammography system with Computer Aided Detection (CAD) is the state of the art in breast care. FFDM provides a clear and precise all-digital image rather than on X-ray film, while the CAD system, part of the digital software, facilitates the use of computer-aided detection.

Uses - Mammography

Mammograms are used as a screening tool to detect early breast cancer in women experiencing no symptoms, and to detect and diagnose breast disease in women experiencing symptoms such as a lump, pain or nipple discharge.

Screening Mammogram

Mammography plays a central part in early detection of breast cancers because it can show changes in the breast up to two years before a patient or physician can feel them. Current guidelines from the U.S. Department of Health and Human Services (HHS), the American Cancer Society (ACS), the American Medical Association (AMA) and the American College of Radiology (ACR) recommend screening mammography every year for women, beginning at age 40. Research has shown that annual mammograms lead to early detection of breast cancers, when they are most curable and breast-conservation therapies are available.

The National Cancer Institute (NCI) adds that women who have had breast cancer and those who are at increased risk due to a genetic history of breast cancer should seek expert medical

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advice about whether they should begin screening before age 40 and about the frequency of screening.

Diagnostic Mammogram

Diagnostic mammography is used to evaluate a patient with abnormal clinical findings—such as a breast lump or lumps—that have been found by the woman or her doctor. Diagnostic mammography may also be done after an abnormal screening mammography in order to determine the cause of the area of concern on the screening exam.

- Ultrasound

Ultrasound is an imaging tool using high frequency sound waves rather than radiation to create images for diagnostic use. The IAP ultrasound service offers all diagnostic fields including cardiac, vascular and general ultrasound services. This includes biopsies and many invasive procedures as well.

All IAP sonographers are highly skilled and qualified RDMS registered technologists. IAP is in the process of obtaining accreditation for all services at this time. The state of the art imaging suite includes grey scale, Doppler, color Doppler, power Doppler, cine, compound imaging high-resolution technology. All units use electronic networking. All scans are supervised and interpreted by an IAP board certified radiologist with extensive ultrasound experience.

- Ultrasound Imaging

Ultrasound imaging, also called ultrasound scanning or sonography, involves exposing part of the body to high-frequency sound waves to produce pictures of the inside of the body. Ultrasound exams do not use ionizing radiation (x-ray). Because ultrasound images are captured in real-time, they can show the structure and movement of the body's internal organs, as well as blood flowing through blood vessels.

Ultrasound imaging is a virtually painless medical test that helps physicians diagnose and treat medical conditions by producing a picture of the internal structures of tissue. A Doppler ultrasound study may be part of an ultrasound examination.

Doppler ultrasound is a special ultrasound technique that evaluates blood as it flows through a blood vessel, including the body's major arteries and veins in the abdomen, arms, legs and neck.

During an ultrasound examination the sonographer or physician performing the test may use Doppler techniques to evaluate blood flow or lack of flow in any tissue mass. This may in some cases provide additional information as to the cause of the mass.

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Uses - Breast Ultrasound

▪ Determining the Nature of a Breast Abnormality

The primary use of breast ultrasound is to help diagnose breast abnormalities detected by a physician during a physical exam and to characterize potential abnormalities seen on mammography.

IAP radiologists use ultrasound imaging to help determine if an abnormality is solid (which may be a non-cancerous lump of tissue or a cancerous tumor) or fluid-filled (such as a benign cyst). Ultrasound can also help show additional features of the abnormal area.

IAP uses Doppler ultrasound to assess blood supply in breast lesions.

▪ Supplemental Breast Cancer Screening

Mammography is the only screening tool for breast cancer that is known to reduce deaths due to breast cancer through early detection. Even so, mammograms do not detect all breast cancers. Some breast lesions and abnormalities are not visible or are difficult to interpret on mammograms. In breasts that are dense, meaning there is a lot of breast tissue and less fat, many cancers can be hard to see on mammography. Over half of women under age 50, and about a third of women over age 50, have dense breasts.

Medical studies are currently being done to determine whether ultrasound and other imaging methods can help supplement mammography by detecting small breast cancers that may not be visible with mammography. It is hoped that by detecting such cancers, these other screening tests might help prevent deaths due to breast cancer.

Today, ultrasound is being investigated for use as a screening tool for women who:

- Have dense breasts
- Have silicone breast implants and very little tissue can be included on the mammogram
- Are pregnant or should not to be exposed to x-rays (which is necessary for a mammogram)
- Are at high risk for breast cancer based on family history.

THERAPEUTIC PROCEDURES

▪ Sclerotherapy for varicose veins

As patients age, their veins become less elastic and the valves can begin to malfunction. When this happens, the veins become distended and take on a ropy appearance that can be both unsightly and painful. The legs become swollen and ambulation is impaired.

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Several techniques are available that can provide a solution to this problem.

In sclerotherapy, an IAP radiologist injects a special chemical (sclerosant) into a varicose vein to damage and scar the inside lining of the vein. This causes the vein to close.

During this procedure, the affected leg is elevated to drain blood, and the sclerosant is injected into the varicose vein. The procedure can be performed in a doctor's office and takes 5 to 30 minutes, depending on how many varicose veins are treated and how big they are.

After the injection of sclerosant is given, pressure is applied over the veins to prevent blood return when the patient stands up. Patients may need to wear compression stockings or elastic bandages for several days or weeks to maintain the pressure.

The sclerotherapy injection may be painful, and the sclerosant that is injected can cause a feeling of burning or cramping for a few minutes in the area where the shot was given. Some patients need repeated sessions and many injections per session depending on the extent of the varicose veins and type of sclerosant used.

IAP physicians are usually able to use a newer technique to inject sclerosant with a catheter. The catheter and sclerosant are guided to the affected vein with the help of duplex ultrasound. This process allows sclerotherapy treatment to be used on larger varicose veins that previously could only be treated surgically with ligation and stripping, in which larger varicose veins are tied off and removed.

Sclerotherapy will likely be more safe and effective using the duplex ultrasound-guided catheter injection because it allows easy and precise access to veins (source: Min RJ, Navarro L. "Transcatheter duplex ultrasound-guided sclerotherapy for treatment of greater saphenous vein reflux: Preliminary report." Dermatologic Surgery, 2000,26(5):410-414).

In addition, early studies show that when used with duplex ultrasound guidance, foam sclerosant has some advantages over liquid sclerosant. Foam sclerosant may be safer, more effective, and lower in cost than conventional liquid sclerosant (source: Frullini A, Cavezzi A. "Sclerosing foam in the treatment of varicose veins and telangiectases: History and analysis of safety and complications." Dermatologic Surgery, 2002,28:11-15. See also: Belcaro G, et al. "Foam-sclerotherapy, surgery, sclerotherapy, and combined treatment for varicose veins: A 10-year, prospective, randomized, controlled, trial (VEDICO* Trial)." Angiology, 2003,54(3):307-315).

Sclerotherapy generally does not require any recovery period. Patients are usually able to walk immediately after the treatment.

Uses - Sclerotherapy

Sclerotherapy is used for:

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- Spider veins and small veins that are not causing more serious problems
- Smaller varicose veins that come back after vein-stripping surgery
- Larger varicose veins, when newer techniques are used

Sclerotherapy may be done alone or as a follow-up to surgery.

Advantages of Sclerotherapy

Sclerotherapy costs less than surgery, requires no hospital stay, and allows a quicker return to work and normal activities.

Sclerotherapy reduces symptoms and improves appearance of the skin in 85% of people who have smaller varicose veins (source: Weiss RA, et al. "Post-sclerotherapy compression: Controlled comparative study of duration of compression and its effects on clinical outcome." Dermatologic Surgery, 1999,25:105-108).

Laser therapy or freezing (cryotherapy) may be used instead of sclerotherapy to treat small veins and spider veins in some cases (see endovenous treatment of varicose veins below).

▪ Laser Ablation of Varicose Veins

For patients suffering from varicose veins, new techniques that treat the veins from the inside, called endovenous radiofrequency ablation (RFA) and laser ablation offer less invasive alternatives to standard surgery. Ablation procedures use heat energy from either radio waves or a laser source to seal the afflicted vein. Local anesthesia is all that is required, and patients often feel immediate relief.

IAP physicians use lasers to treat varicose veins. Laser heat damages a vein, which makes scar tissue form. This scar tissue closes the vein. A closed vein loses its source of blood and dies. After a year or two, the vein is likely to disappear.

Uses - Laser Ablation of Varicose Veins

Until recently, laser vein treatment has been limited to simple laser treatment of spider veins and tiny varicose veins just under the skin's surface. Usually, more than one laser session is needed. They are scheduled every 6 to 12 weeks, as prescribed by the referring doctor. Patients with poor blood circulation feeding these tiny veins usually require that the larger "feeder" vein is first treated with surgery, endovenous laser or radiofrequency treatment, or sclerotherapy. When IAP physicians use an endovenous laser treatment to close off a larger varicose vein, the patient is able to avoid having a more-costly surgical procedure to remove it.

Endovenous laser treatment

This newer technology is becoming more available for larger varicose veins in the legs. A laser fiber is passed through a thin tube

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(catheter) into the vein. While doing this, the doctor watches the vein on a duplex ultrasound screen.

Endovenous ablation offers a safe, effective and easy method of eliminating varicose veins, which can cause debilitating leg symptoms such as severe pain and skin ulceration. Normally, the veins in the leg return blood to the heart by the pumping action of the muscles when a person walks. One-way valves prevent reflux of blood back into the legs.

Advantages

- Simple laser treatment is very safe and effective (source: Bartholomew JR, et al. "Varicose veins: Newer, better treatments available." Cleveland Clinic Journal of Medicine, 2005,72(4):312-328).
- Ablation is generally complication-free and safe. Studies show that endovenous laser closes veins up to 98% of the time, with less pain and shorter recovery time than vein ligation and stripping surgery (source: Teruya TH, Ballard JL. "New approaches for the treatment of varicose veins." Surgical Clinics of North America, 2004, 84(5):1397-1417).
- Endovenous laser treatment is less painful than vein ligation and stripping surgery, needs a shorter recovery time, and is very effective (source: Teruya TH, Ballard JL. "New approaches for the treatment of varicose veins." Surgical Clinics of North America, 2004,84(5):1397-1417).
- Performed on an outpatient basis, endovenous ablation is more effective, less expensive, has fewer negative outcomes, and is associated with much less pain during recovery than traditional "vein stripping" techniques.
- There are virtually no scars because catheter placement requires skin openings of only a few millimeters, not large incisions. Most of the veins treated are effectively invisible even to ultrasound 24 months after the procedure.
- Only local anesthesia or a light sedative is needed for laser treatment (vein surgery requires general anesthesia).
- Patients are usually able to resume their normal daily routine after simple laser treatment. After endovenous laser treatment, patients typically wear compression stockings for 1 week or more.
- Patients report tremendous reduction in pain and discomfort after varicose veins are treated.
- Most patients have immediate symptom relief and are able to return to normal activities within a day or two, with little or no pain.
- Most patients are very satisfied with the outcome.

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One to four weeks after endovenous ablation, the IAP radiologist will follow up using duplex ultrasound to ensure that the procedure was successful at treating the problem with the veins in the leg. The main vein should be completely closed at this point. Minor additional procedures to treat associated veins may be necessary.

As with other treatments, more experienced operators usually obtain superior patient outcomes. The IAP physicians performing endovenous laser treatments are some of the most experienced in the State of Alaska.

ULTRASOUND-GUIDED PROCEDURES

IAP physicians provide a wide range of ultrasound-guided procedures, the most common of which are described below.

- Minimally invasive Ultrasound-guided Breast or Other Tissue Biopsy

A biopsy involves removing some cells—either surgically or in a less invasive procedure involving a needle—from the suspicious area in the body and examining them under a microscope to determine a diagnosis.

Because ultrasound provides real-time images, it is often used to guide biopsy procedures.

After placing an ultrasound probe over the site of the lump and using local anesthesia, the radiologist guides a biopsy needle directly into the mass. Tissue specimens are then taken using either an automatic spring-loaded or vacuum-assisted device (VAD).

When ultrasound guidance is used, the area that needs to be tested is centered in the window of a specially designed compression paddle. Mammogram films are taken so the radiologist can examine the tissue to be biopsied. These films are called SCOUT films.

After giving a local anesthetic, the radiologist makes a small opening in the skin. A sterile biopsy needle is placed into the abnormal tissue. Computerized pictures help confirm the exact needle placement using digital imaging.

Tissue samples are taken through the needle. It is common to take multiple tissue samples (about three to five). There are a number of biopsy instruments that can be utilized to obtain the tissue sample. They include core biopsy which uses a needle to obtain a piece of tissue about 1/16 inch across and 1/2 inch long, and a vacuum assisted needle biopsy device (VAD), which uses vacuum suction to obtain a tissue sample.

This tissue is then examined under the microscope to look for cancer cells. This part of the biopsy takes approximately 15 minutes. Upon completion, sterile strips and a small adhesive bandage are applied to the skin. The entire procedure takes approximately 30 minutes to an hour.

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Uses - Ultrasound-guided Biopsy

When a tissue abnormality is visible on ultrasound, but the ultrasound examination cannot characterize the nature of a tissue abnormality, a physician may choose to perform an ultrasound-guided biopsy.

Ultrasound-guided biopsy is a minimally invasive alternative to surgery known as image-guided needle biopsy. It may be performed with either a large hollow needle (automated core tissue biopsy) or a vacuum-powered instrument. IAP physicians perform needle biopsies using either ultrasound or stereotactic guidance.

Ultrasound-guided biopsy is often useful when there are suspicious changes on the mammogram that can also be seen on an ultrasound exam but no abnormality can be felt by either self-examination, or clinical examination by a primary care physician. There are also occasions when a physician decides that ultrasound guidance for biopsy is appropriate even for a mass that can be felt.

IAP radiologists perform fine needle aspiration by inserting a small needle into the tissue through the skin to the site of the abnormality to collect a small sample of cells.

In a core needle biopsy, a slightly larger needle, called an automated needle, is used to withdraw small cylinders or cores of tissue from the abnormal area. In this procedure, the needle is inserted three to five times to obtain samples. Because this procedure removes a larger amount of tissue than a fine needle biopsy, it can be more useful for determining treatment options if the analysis shows that the cells are cancerous.

Advantages of Ultrasound-guided breast biopsy

- The procedure prevents the need to remove tissue surgically and also eliminates the radiation exposure that comes from using x-rays to locate a mass.
- Compared with x-ray or stereotactically-guided tissue biopsy, the ultrasound method is faster and avoids the need for ionizing radiation exposure. With ultrasound it is possible to follow the motion of the biopsy needle as it takes place.
- Ultrasound-guided breast biopsy is able to evaluate lumps under the arm or near the chest wall, which are hard to assess by the x-ray-guided (stereotactic) method.
- Ultrasound-guided biopsy is somewhat less expensive than the x-ray-guided (stereotactic) method.
- Minimal scarring instead of a large incision.
- Reduced post-procedural pain and risk of infection.
- Potentially lower hospital costs.
- Immediate return to work.

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- Shorter recovery time and immediate resumption of daily activities.

Ultrasound-guided tissue biopsy is a highly accurate way to evaluate suspicious masses. It is perhaps most often used to biopsy the breast when abnormalities are visible on ultrasound, whether or not they can be felt on breast self-examination or upon clinical examination.

- Cyst Aspiration Breast or Other Tissue

In an ultrasound-guided cyst aspiration, the radiologist removes fluid from inside a lump. Ultrasound imaging is used to determine the exact location of a cyst within the tissue. The images assist the radiologist in precisely positioning a thin needle within the breast in order to drain fluid from the cyst(s).

The fluid drains into a syringe, collapsing the cyst. Depending on the appearance of the fluid, it may be discarded, or sent to the laboratory for analysis. A bandage is applied over the puncture site. Some slight bruising or swelling may accompany the procedure, which takes between 15-30 minutes to complete.

- Fine Needle Aspiration of the Thyroid Gland

A fine needle aspiration of the thyroid gland is a procedure to remove thyroid cells for examination. The thyroid is located in front of the trachea (windpipe) at the top of the neck, and is responsible for producing thyroid hormone, which is an important hormone that stimulates the metabolism of the body.

Between 4% and 7% of people in the United States have lumps (or nodules) in their thyroid gland that can be felt on examination. The frequency of these nodules increases with age. Thyroid nodules are also more common in women than in men. In fact, ultrasound studies have found that up to one in every three women has at least one thyroid nodule that may be too small to notice (usually, a nodule needs to be greater than one centimeter in diameter for it to be felt). Interestingly, because women have so many more nodules than men, the incidence of detected cancer is higher in women than in men by virtue of absolute numbers. However, each individual nodule is more likely to be cancerous if found in a man.

Fortunately, fewer than 10% of thyroid nodules are malignant. The majority of thyroid nodules are harmless growths, known as adenomas, and are contained within a capsule. Even though cancerous nodules are uncommon, the doctor will take the necessary measures to be certain. Epidemiologic studies suggest that nodular thyroid disease is a common clinical problem, with a prevalence of 4% to 7% in the adult population in North America and an annual incidence of 0.1%, which translates into approximately 300,000 new nodules in the United States (source: Gharib H: "Fine-needle aspiration biopsy of thyroid nodules: advantages, limitations, and effect." Mayo Clin Proc 1994, 69:44-49).

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Fine-needle aspiration (FNA) biopsy of the thyroid gland is routinely used as the first step in the evaluation of nodular thyroid disease. For many years, a core biopsy of the thyroid was the procedure of choice. This method involved a large biopsy, which was often more difficult for patients.

Fine needle aspiration biopsy has now become the method of choice for obtaining samples of thyroid tissue. When performed properly, the testing has a false negative rate of less than 5%.

IAP physicians perform fine needle biopsies when ultrasound guidance is required, most commonly when the nodule cannot be felt without difficulty or if the nodule has specific areas within it to be sampled.

Usually, fine needle aspiration biopsies of the thyroid do not require even a local anesthetic. Since the needle used for fine needle aspiration biopsy is so fine, anesthesia often results in simply another uncomfortable poke for the patient. If a patient is particularly concerned and nervous, a topical anesthetic preparation may be applied, which takes 10 to 20 minutes to work, thus prolonging the procedure. Most IAP patients undergoing fine needle aspiration biopsy forego the use of any anesthetic and do very well.

Once the patient is ready, the radiologist inserts a small, fine-gauge needle into the nodule. The needle is smaller in diameter than the needle used in most blood draws (usually a 25 gauge 1.5 inch needle). The patient holds his breath while the needle is rocked gently to obtain as much tissue as possible. (The reason for holding the breath is to minimize movement of the structures in the neck.) The needle is then withdrawn and pressure is applied over the thyroid area to minimize bleeding. This procedure is usually repeated four to six times to ensure that an adequate amount of tissue has been collected. After the procedure, pressure is applied over the neck area for 5 to 10 minutes to assure that the bleeding has stopped. The pressure also helps to reduce any swelling that may occur. The entire procedure usually takes less than 20 minutes.

IAP physicians also perform fine needle aspirations to treat thyroid cysts. A thyroid cyst is a fluid-filled sac within the thyroid gland. Aspiration of the cyst with a needle and syringe can shrink the swelling from the cyst and the fluid removed can be analyzed for cancer.

- Uses - fine needle aspiration biopsy of the thyroid
 - To make a diagnosis of a thyroid nodule;
 - To help select therapy for a thyroid nodule;
 - To drain a cyst that may be causing pain; or
 - To inject a medication to shrink a recurrent cyst.

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▪ Paracentesis

IAP physicians perform paracentesis procedures to remove fluid that has collected in the belly (peritoneal fluid). This fluid buildup is called ascites. Ascites may be caused by infection, inflammation, an injury, or other conditions, such as cirrhosis or cancer. The fluid is taken out using a long, thin needle put through the belly. The fluid is sent to a lab and studied to find the cause of the fluid buildup. Paracentesis also may be done to take the fluid out to relieve belly pressure or pain in people with cancer or cirrhosis.

Uses - Paracentesis

- Find the cause of fluid buildup in the belly.
- Diagnose an infection in the peritoneal fluid.
- Check for certain types of cancer, such as liver cancer.
- Remove a large amount of fluid that is causing pain or difficulty breathing or that is affecting how the kidneys or the intestines (bowel) are working.
- Check for damage after a belly injury.

▪ Thoracentesis

Thoracentesis (also known as thoracocentesis or pleural tap) is an invasive procedure that IAP physicians perform to remove fluid or air from the pleural space for diagnostic or therapeutic purposes.

Normally only a small amount of pleural fluid is present in the pleural space. Accumulation of excess pleural fluid (pleural effusion) may be caused by many conditions, such as infection, inflammation, heart failure, or cancer. If a large amount of fluid is present, it may be difficult to breathe. Fluid inside the pleural space may be found during a physical examination and is usually confirmed by a chest X-ray.

The radiologist carefully introduces a cannula, or hollow needle, into the thorax, generally after administering local anesthesia. The pleural fluid may be sent to a lab to determine what may be causing the fluid to accumulate in the pleural space.

This procedure is indicated when unexplained fluid accumulates in the chest cavity outside the lung. In more than 90% of cases, analysis of pleural fluid yields clinically useful information. If a large amount of fluid is present, then IAP radiologists will perform this procedure therapeutically to remove that fluid and improve patient comfort and lung function.

The most common causes of pleural effusions are cancer, congestive heart failure, pneumonia, and recent surgery. In countries where tuberculosis is common, this is also a common cause of pleural effusions.

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When cardiopulmonary status is compromised (i.e., when the fluid or air has its repercussions on the function of heart and lungs), due to air (significant pneumothorax), fluid (pleural fluid) or blood (hemothorax) outside the lung, then this procedure is usually replaced with tube thoracostomy, the placement of a large tube in the pleural space.

Uses - Thoracentesis

- Determine the cause of excess pleural fluid (pleural effusion).
- Relieve shortness of breath and pain caused by a pleural effusion.

IMAGE ACCESS

Referring clinicians have secure, Web-based access from their home or office to IAP radiology images and reports through ProvPort. ProvPort is a portal that allows clinicians and staff to view health information about patients including transcriptions, lab results, radiology reports, demographic information, and digital imaging through a Picture Archiving and Communication System (PACS) system.

All examinations are done in the surrounding rooms. The digital test units take the exams as they are finished and send them to the PACS QC workstations, where the technologists review and check every one for quality and constancy before the patient leaves the examination room. Results are then routed to the PACS archive and sent to the reading room, where they are electronically available to radiologists from any of the workstations. After the radiologist reviews the image and makes a final report, it is electronically distributed to the physicians and/or stored.

Typical turnaround times are around four hours; at IAP it's minutes. Preliminary reports are available within one hour, final reports within 24 hours. Patients can leave the facility with a CD of the image.

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Table 3.B.a Facility Service Configuration

Modality	Number of Units	Location
Bone Densitometry/DEXA	1	Mat-Su
Computed Tomography (CT)	2	Both
Musculoskeletal Radiology	2	Both
Magnetic Resonance Imaging	2	Both
NMR spectroscopy	1	Anchorage
Digital Mammography	2	Both
Ultrasound	2	Both
Sclerotherapy of varicose veins	1	Anchorage
Endovenous ablation of varicose veins	1	Anchorage
Procedure Room	2	Both

Appendix B contains floor plans of these areas.

All patients treated are outpatients.

Reduced Wait Time

IAP facilities make every effort to minimize wait times; both examination wait time and report wait time. When waiting is involved, the entire system gets bogged down. IAP has implemented a workflow that moves rapidly from examination request through imaging, processing, reporting and distribution.

This process improves patient care on a very basic level. Offering instant access to information to each patient and his or her physician is a tangible demonstration of our commitment to put the needs and interests of the patient first. It improves patient care by minimizing the stress of illness on every level. The letters of support contained in Appendix C illustrate these facts.

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C. Provide in the following table information regarding equipment to be purchased.

Table III.C Equipment Purchased

Equipment Purchased	Cost	AHA Life
<u>Equipment:</u>		
Somaton Sensation 40 CT	858,908	5
Vertix Solitaire Multix Top	119,826	5
Acuson Ultrasound System	138,581	5
9900C Empower CTA Injector	19,850	10
Megetom Trio A TIM System	2,209,922	5
Ultrasound Chair	864	15
Hologic Mammography	418,936	5
Laser Imager	32,494	5
Smart CR Lite	66,380	8
CD Burner (Data Card System)	32,275	5
Pediatric Immobilizer	2,831	15
Digitizer	23,699	5
Transducer	25,550	7
Wheel Chair	1,905	5
Automatic Sliding Door	2,100	10
Data & Phone Cabling	8,564	10
Window Shades	3,168	5
Padnet complete System	19,500	7
Precision 980 Laser-Venacure	25,125	5
Flex Coil 4 Channel	21,600	5
Lobby Fireplace	698	7
Ultrasound Chair	863	15
Ultrasound Stretcher	9,434	7
Digitizer	22,900	5
Medical System (Sonora)	753	7
Somaton Sensation 40 CT	856,996	5
Hologic Mammography	418,936	5

continued

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Table III.C Equipment Purchased
(Continued)

Equipment Purchased	Cost	AHA Life
Vertix Solitaire Multix Top	119,347	5
Acuson Ultrasound System	138,581	5
9900C Empower CTA Injector	19,850	10
Megnetom Espree MRI	1,663,312	5
Bone Densometer	59,107	5
Laser Imager	32,494	5
Smart CR Lite	66,380	8
CD Burner (Data Card System)	32,275	5
Pediatric Immobilizer	2,831	15
Transducer	25,563	7
Wheel Chair	1,905	5
Automatic Sliding Door	4,600	10
Window Shades	3,168	5
Soft View Window Covering	1,525	5
Padnet complete System	19,500	7
Wrist Coil SMS	30,640	5
3 Outdoor Signs	2,020	7
Cedar Fence (Chiller Unit)	<u>2,631</u>	7
Total Equipment	7,568,387	
<u>Furniture & Fixtures:</u>		
TV	5,494	5
Office Furniture	2,011	20
Telephone Equipment	7,440	10
Office Furniture Package	44,031	20
Coffee Brewing System	2,800	5
3 laptops	2,295	3
Ultra Sharp Monitor	303	3
Scanner	443	3
Latitude Laptop	923	3
Furniture	621	10
Monument Sign	590	10
Decorations	1,446	7
Furniture	5,334	10
3 Contessa Chairs	2,231	7
TV	4,281	5
Furniture	5,866	10
Furniture	3,450	10

continued

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Table III.C Equipment Purchased
(Continued)

Equipment Purchased	Cost	AHA Life
Office Furniture	2,011	20
TV	1,001	5
Coffee Brewing System	2,800	5
Furniture	24,814	10
3 laptops	2,295	3
Multimedia Projector W340	984	10
Ultra Sharp Monitor	303	3
Scanner	443	3
Latitude Laptop	923	3
Furniture	621	10
Monument Sign	590	10
Decorations	346	7
Furniture	5,334	10
3 Contessa Chairs	2,231	7
Total Furniture & Fixtures	134,255	
<u>IT Support:</u>		
Computer System	215,498	5
Computer System (Additional)	23,777	5
Computer System	215,738	5
Computer System (Additional)	23,777	5
Total IT Support	478,790	
Totals	8,181,432	

D. Provide in the following table information regarding equipment to be replaced or retired.

Not applicable to this project. The facilities are new; no equipment will be replaced or retired.

E. Describe replacement or upgrading of utilities including the electrical, heating, ventilation, and air conditioning systems.

Not applicable. The facilities are new.

F. Describe the structural framing, floor system, and number of floors (including the basement).

Not applicable to this project as the space is leased.

G. Total square footage in current facility/project.

Not applicable. The facilities are new.

H. Total square footage of proposed facility/project.

11,054 SF

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I. Area per bed, service unit, or surgery suite (if applicable).

Not applicable, this project established outpatient services only.

J. Percentage of total floor area used for direct service (non-bed activity).

95%

K. Additional volume of service (non-bed activity) expected.

See Section IV.B.5 for volume projections.

L. Provide a brief history of expansion and construction for the past five years, including new equipment purchases, additional beds, and new services. Describe how this project fits into the facility's long-range plans, including potential projects planned for development within the next five years.

IAP is a limited liability company whose purpose is to provide medical imaging services. Construction of the facilities on Abbott Road in Anchorage and in the Mat-Su Valley began in December 2005. The facilities were completed and began operation in June 2006.

A few months after construction began, the Department of Health and Social Services sought information from IAP so that it could determine whether IAP was required to obtain a certificate of need. IAP asserted that the facility fell within the statutory exclusion from certificate of need requirements for the office of private physicians in group practice.

When the two facilities were constructed, a statute made physicians' office exempt from the certificate of need requirements and a regulation made imaging facilities not falling within a particular federal billing designation exempt as well. Both the statute and the regulation clearly applied to the IAP facilities.

In two separate letters signed by the Commissioner, May 4, 2006 and June 14, 2006, DHSS determined both initially and on reconsideration, that IAP's Mat-Su Valley facility is not a health care facility for which a certificate of need is required. In response to a request for reconsideration by a third party, the department again determined that the Mat-Su office is not a health care facility for the purposes of certificate of need regulation.

After a ruling in another case (IAP has asserted this ruling has no applicability to IAP offices), a third party who had been following the case and the matter concerning IAP's Mat-Su Valley facility wrote to the commissioner asking for a determination concerning IAP's Abbott Road office. A series of letters followed, through which the commissioner in effect rescinded the department's previous determinations and concluded that the IAP facilities are required to apply for certificates of need. A subsequent administrative ruling upheld the commissioner's right to require that IAP apply for a certificate of need, which she did, in fact, require.

That is how the present application, which seeks approval to construct and operate two facilities that have already been constructed and are currently in operation, has come to be submitted for review and determination.

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A. RELATIONSHIP TO APPLICABLE PLANS AND NATIONAL TRENDS

Indicate how the application relates to any relevant plans, including the applicant's long-range plans, appropriate local, regional, or state government plans, the current Alaska Certificate of Need Review Standards and Methodologies, adopted by reference in 7 AAC 07.025, and current planning guidelines of recognized national medical and health care groups. If the proposal is at variance with any of these documents, explain why. (See the department's website for state planning processes and materials and links to federal websites.)

This project is an outpatient service for diagnostic and therapeutic radiology services. There are no local, regional or state government plans that specifically address the community need for these services. Nevertheless, the proposed project is generally consistent with the State Health Plan goals of providing an adequate range of primary, preventative and acute care services in all communities, delivered in a cost-effective and medically appropriate setting. Specifically, this project will:

- Deliver services in the most cost-effective setting that is medically appropriate to the care needed.
- Reduce barriers to access of necessary services.
- Better serve the residents of Alaska by providing adequate capacity and an increased range of programming.

As such, the proposed project is fully consistent with the overall intent of existing plans to provide adequate and high quality services to area residents.

IAP Mission

This project is consistent with the IAP mission:

IAP seeks to provide high-quality, convenient, low-cost care whenever we can best meet a need in the community.

IAP serves patients, residents, and the community with outpatient imaging services and image-guided therapies and treatments without regard to payer or ability to pay.

IAP seeks to lead the market by efficiently providing a select range of diagnostic and therapeutic services of the highest quality, using state of the art equipment, facilities and staffing.

The need for this project is based on:

- Population growth
- Increasing demand for the services provided
- The opportunity to increase patient access to the specialized professional expertise of IAP professionals
- The opportunity to increase access to enhanced technology
- The opportunity to provide higher levels of service and quality at lower cost than existing facilities.

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The proposed project is consistent with the goals and plans of IAP. Support for the proposed project includes members of the community, medical staff, clinical staff and patients utilizing services.

Alaska Certificate of Need Review Standards and Methodologies

- Magnetic Resonance Imaging

Table IV.A.1 below has been prepared with reference to Alaska Certificate of Need Review Standards and Methodologies Section VII.A: Diagnostic Imaging Services, Review Standards and Methodology, Magnetic Resonance Imaging, adopted December 9, 2005.

Table IV.A.1 Magnetic Resonance Imaging Service Review Standards

MAGNETIC RESONANCE IMAGING REVIEW STANDARDS	COMMENTS
1. Except as provided in Review Standard 2, an applicant who seeks to establish an MRI service demonstrates the ability to provide a minimum of 3,000 MRI scans per year by the end of the third operational year, dating from the initiation of the service.	Utilization is expected to surpass 3000 MRI scans per year by the end of third year after program implementation, which began in June 2006. Please see Figures IV.B.5.1 and IV.B.5.2 for detail.
2. An applicant who seeks to establish an MRI service in a community with a population of 10,000 or less demonstrates the ability to provide a minimum of 1,000 MRI scans per year by the end of the third year, dating from the initiation of the service. (Based on the estimate of a minimum of 2,500 scans/70,000 people, it is estimated that the minimum service area population for an MRI service to provide a minimum of 1,000 MRI scans per year would be 28,000 people).	Not applicable. This project seeks to establish a new MRI service in a community with a population greater than 10,000.
3. No MRI service will be approved at a location that is less than 30 minutes access time of an existing MRI service performing fewer than 3,000 scans per year, or of a CON-approved, but not yet operational, MRI service.	We request a waiver of this standard, since it is inapplicable where contractual obligations prevent the physicians of one facility from accessing the equipment at another that may perhaps have excess capacity. IAP physicians are precluded by contract from applying for privileges at other area facilities, and can only see their patients at Providence Alaska Medical Center facilities, of which there are currently two (not counting the proposed project). All MR units at both of these facilities are over the threshold (see Table IV.B.5.c below).

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- Computed Tomography

Table IV.A.2 below has been prepared with reference to Alaska Certificate of Need Review Standards and Methodologies Section VII.C: Diagnostic Imaging Services, Review Standards and Methodology, CT Scanning, adopted December 9, 2005.

Table IV.A.2 CT Service Review Standards

CT SCANNING REVIEW STANDARDS	COMMENTS
1. An applicant who seeks to establish a new CT service in an urban area (population of 70,000 or more) demonstrates the ability to provide a minimum of 3,000 CT scans per year by the end of the third operational year, dating from the initiation of the service.	Utilization is expected to surpass 3000 CT scans per year by the end of third year after program implementation in the Mat-Su Valley and the fourth year in Anchorage (both programs opened in June 2006). Please see Figures IV.B.5.1 and IV.B.5.2 for detail.
2. An applicant who seeks to establish a new CT service in a rural area demonstrates the ability to provide a minimum of 1,000 CT scans per year by the end of the third operational year, dating from the initiation of the service.)	Not applicable. This project seeks to establish a new CT service in a community with a population greater than 10,000.
3. No new CT service will be approved in a service area or at a location that is less than 30 minutes travel time of an existing CT service performing fewer than 3,000 scans per year, or of a CON-approved but not yet operational, CT service.	We request a waiver of this standard, since it is inapplicable where contractual obligations prevent the physicians of one facility from accessing the equipment at another that may perhaps have excess capacity. IAP physicians are precluded by contract from applying for privileges at other area facilities, and can only see their patients at Providence Alaska Medical Center facilities of which there are currently two (not counting the proposed project). All CT units at both of these facilities are over the threshold (see Table IV.B.5.c. below)
4. An applicant who seeks to expand an existing CT service must demonstrate an average service volume of at least 4,000 CT scans annually for each existing CT scanner at the service site.	Not applicable. This project seeks to establish a new CT service.

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B. DEMONSTRATION OF NEED

B1. Identify the problems being addressed by the project. For example, identify whether this project is for (a) a new service; (b) an expanded service; or (c) an upgrade of an existing service.

This project establishes two new imaging services. While imaging services are already offered in the Anchorage area, the IAP facilities offer several new technologies and interventional procedures.

The proposed project:

- Enables IAP to provide a higher level of outpatient diagnostic and therapeutic radiology services needed by the residents of the service areas in a more convenient, lower cost office-based practice. In the Mat-Su Valley choices are particularly constrained (see the attached letter from Dr. Lemagie in Appendix C for further detail).
- Ensures high quality diagnostic imaging and therapeutic image-guided procedures at both locations through enhanced coordination of effort. The ProvPort system of sharing images enhances patient satisfaction and reduces unnecessary costs and waste;
- Develops imaging facilities that provide a wider array of technology, e.g., the enhanced capabilities of the 3T unit at the Abbott Road site and the Short-Bore unit at the Mat-Su site.
- Develops facilities that provide a broader range of therapeutic procedures in dedicated-outpatient facilities, such as paracentesis, thoracentesis, endovenous varicose vein ablation, sclerotherapy and ultrasound-guided cyst aspiration.
- Develops facilities that enhance access to the professional services of the leading radiology group in Alaska. IAP physicians lead the State in several areas of expertise. They offer patient and referring physicians access to imaging subspecialists with experience and expertise in such areas as mammography with digital imaging, ultrasound, CT with 3-Dimensional Imaging, MRI, MRA, CTA, PET, nuclear medicine, and interventional radiology. The proposed sites will bring these physician services to a wider population in settings that are appealing to patients and their families.
- The proposed facilities provide the infrastructure to attract additional radiology specialists to the State of Alaska. For example, on January 2, 2008, a radiologist joined the staff of the Mat-Su facility. She and her husband relocated from Idaho to the Mat-Su Valley specifically to take advantage of the unique professional environment provided by the proposed project.

Outpatient imaging facilities have proven to be more efficient, less costly, and of superior quality compared to their hospital-based counterparts. IAP only performs outpatient examinations and

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therapies of a short duration, allowing patients to return home the same day the service is performed.

Our offices are designed to specialize in a small number of procedures. This allows the equipment, staff, and inventory to be highly specialized and results in an overall process that is inherently more efficient for both the physician and patient.

Patients wait for very short periods of time before being seen, almost always less than five minutes, which is much less than the time usually so spent in a hospital outpatient setting. In addition, of course, hospitals also treat acute care inpatients and emergency patients and correctly "bump" scheduled outpatients in order to expedite the treatment of those with greater severity and urgency. As appropriate as this practice is, it is not convenient or cost effective and does not enhance the outpatient experience.

Efficient scheduling of a relatively limited number of modalities allows IAP to achieve economies of scale that reduce expenses; these cost savings are ultimately shared with the patient in the form of lower charges. Additionally, procedures performed at IAP are often of superior quality as a specific result of the accumulated expertise of the IAP professionals.

Dedicated outpatient imaging facilities are more user-friendly and convenient for the patient than hospitals. Having a separate outpatient-dedicated center also eliminates the need for patients to deal with a large and confusing hospital campus - which confront patients with a host of operational complexities such as cumbersome registration and logistical difficulties ranging from confusing parking to even being able to locate the radiology area.

The project will allow for increased efficiency for patients, referring physicians, and radiologists. The imaging facilities at the Providence Alaska Medical Center, Providence Imaging Center, Alaska Regional Hospital, and Mat-Su Regional Medical Center serve both inpatient and outpatients. Outpatient cases are often bumped to allow for emergent cases to be seen. As identified in some of the patient letters of support for this project, this has inconvenienced patients, particularly those who have made arrangements for time off of their work schedule to have their outpatient procedures performed.

Creating two new imaging facilities will provide much greater patient convenience, including a dedicated outside entrance and parking just outside this entrance. Immediate and simple patient registration will greatly decrease waiting times for procedures compared to other area facilities.

The dosimetry program used at IAP provides the lowest possible exposure to ionizing radiation and represents a real advantage to patients, particularly those with diseases or treatments that require frequent or recurrent CT scans in order to monitor the progress of treatment, such as oncology patients.

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Oncology patients are a patient group that we expect will particularly benefit from the proposed facilities. These patients often have compromised immune systems as a result of their therapy; IAP facilities do not allow outpatients to mingle with high acuity patients such as those referred for radiology exams from the emergency department or the inpatient units of the hospital, thus shielding them, to an extent, from potential air-borne pathogens. As mentioned above, oncology patient often require multiple CT scans, necessarily periodically exposing them to the potentially harmful effects of ionizing radiation. These risks are reduced by minimizing the amount of radiation used to make the image.

Since IAP will not operate inpatient units or an emergency room, our patients cannot be bumped from the schedule by higher acuity inpatients or emergency cases.

Report turnaround time is extremely important to patients. Few diseases cause a greater sense of distress, anxiety and fear than cancer. Thanks to advances in medicine, however, there is increasing optimism about treating cancer patients successfully. It is reassuring to get good news after a diagnostic exam, especially if cancer is involved. And it is reassuring to know that no time has been lost waiting for a report when the answer isn't positive.

Designed for the comfort and convenience of patients, both IAP facilities offer easy access, free parking, and spacious and tranquil public areas. The facilities have been designed to be efficient both clinically and architecturally. Equipped with the most modern technology available in the areas of diagnostic imaging and image-guided treatment, the new facilities provide a convenient, one-stop resource for our patients.

B2a. Describe whether (and how) this project addresses an unmet community need.

This project meets an unmet community need by providing two dedicated outpatient facilities to Alaska's largest and fastest growing population centers. Patients will be offered an additional choice among radiology practices, sites, prices and schedules.

Both the 3T Tesla and the Open Bore MRI are new to their communities. 3T MRI systems have twice the field strength of a 1.5T system, resulting in significantly increased signal-to-noise ratio (SNR) for better visualization and superb detail of smaller anatomical structures, reduced acquisition time, and increased patient throughput, i.e., higher quality in less time. The Open Bore unit combines greater patient comfort with a high-strength magnet. IAP physicians will offer several image-guided procedures for the first time in a dedicated outpatient setting to the residents of Mat-Su Valley service area.

Since some forms of diagnostic imaging are recurrent (e.g., periodic tumor imaging to monitor therapy effectiveness), numerous inconvenient and time-consuming trips to Anchorage would be

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required. Furthermore, since many patients are receiving care by oncologists at Providence Alaska Medical Center, greater continuity of care results by allowing these patients to be evaluated by radiologists also affiliated with Providence Alaska Medical Center.

Finally, the two IAP facilities address an unmet need for additional capacity accessible by IAP radiologists.

Unlike most physicians, Radiologists (along with Pathologists and Anesthesiologists) are usually under an exclusive contract to one provider, and are thus contractually ineligible for privileges at other facilities. This is the case with every IAP physician.

Even if there is unscheduled capacity available at other providers, it cannot be accessed by the patients of IAP physicians without requiring them to change radiologists. The exclusive contract that IAP physicians have with PAMC precludes them from applying for privileges at other providers, while other hospital providers, like Mat-Su Regional or Alaska Regional Medical Center in Anchorage, are also bound by contract with their radiologists that preclude them from accepting applications from IAP physicians.

Therefore, since the MR & CT units that IAP physicians can use to treat their patients are fully utilized (i.e., those at PAMC in Anchorage and the Providence Imaging Center in Anchorage), IAP physicians must either obtain 1) more capacity that they can use, or 2) require that their patients change radiologists in order to access the service at another facility.

The second alternative is unnecessarily coercive and contrary to the valuable health system goals of maintaining continuity of care and increasing patient choice where possible. Therefore, this project addresses an unmet need for additional capacity accessible by the patients of IAP physicians.

- Closing the Mat-Su facility would limit patient choice by requiring that patients either 1) switch their care to a radiologist affiliated with Mat-Su Regional Hospital, or 2) travel to a PAMC facility in Anchorage in order to maintain the integrity of their care team. Neither option serves the needs of Mat-Su residents, who benefit from ready and convenient access to care close to home at the existing IAP Mat-Su facility.
- In Anchorage, there is also an unmet need for capacity. The existing PAMC units are fully utilized. As more patients seek the care of IAP physicians, patients need additional capacity to meet their needs. PAMC readily agrees that more capacity is needed by IAP physicians, a fact demonstrated by their presence as an IAP partner to provide the services described herein.

B2b. Describe whether (and how) this project satisfies an increasing demand for services.

Demand will increase over time for the services this proposed facility provides. Demand for outpatient imaging services

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procedures grows in direct relation to population growth for most modalities, with some growing at a faster rate (see Section B.2.c below).

Using data from the Alaska Department of Workforce Development, between 2006 and 2015 the Anchorage population is projected to grow by 24,089 or 8.5%. The Mat-Su Valley population will grow by 20,669 persons, or 26.8% over the nine-year period. See Section B.4 below for further detail.

B2c. Describe whether (and how) this project follows a national trend in providing this type of service.

This project reflects the national trend to providing outpatient procedures in convenient facilities. According to Sg2, a health care intelligence and consulting firm based in Skokie, Illinois²:

The importance [of imaging] will...grow over the next decade, when outpatient imaging jumps by an estimated 17 percent...But the overall outlook is somewhat deceptive, because all imaging modalities clearly aren't alike...key modalities such as computed tomography (CT), magnetic resonance (MR) and positron emission tomography (PET) will expand at a much greater rate than the industry overall by 2016.

CT. CT utilization will soar by 57 percent by 2016, as it captures volume from X-ray and interventional diagnostic procedures...next-generation multi-slice CT technology will revolutionize cardiac diagnostic work, decreasing cardiac SPECT over the next two to five years and diagnostic cardiac catheterization over the next four to eight years. CT angiography (CTA) will see large growth in peripheral and carotid studies, while early detection will boost utilization of therapeutic interventional procedures. As cancer patients live longer, CT will be used for frequent staging and monitoring. The largest volume growth will occur in chest CT, virtual colonoscopy and coronary CTA.

MRI. Driven in part by continued growth in spine and joint studies and aging baby boomers' expectations of continued high activity levels as they age, overall MRI utilization will surge by 44 percent by 2016. Minimally invasive procedures will increase the number of patients opting for surgery, further increasing MR volumes. Advanced MR applications such as functional and diffusion MR will be used to stage cancer and stroke patients, while breast MR procedures in support of cancer diagnostics will be one of the fastest-growing applications. Although MR angiography already has grown considerably, it will see increasing volume in lower-extremity studies. Cardiac MR studies of post-congestive heart failure and post-acute myocardial infarction will nearly triple.

Ultrasound. Ultrasound volume will nearly keep pace with the imaging industry overall, increasing 16 percent by 2016, Sg2 forecasts. More screenings for vascular disease including abdominal aortic aneurysm, carotid and extremity vascular studies-will drive growth.

X-ray. Volumes will expand just 8 percent over the next 10 years. Declining reimbursement and more stringent X-ray accreditation requirements will trigger a shift in many chest, abdominal and musculoskeletal X-ray studies to CT and MRI. However, offsetting some of this shift in volumes, digital mammography volumes will double by 2016.

² Sharma, Amit. "Ups and Downs: Utilization 10 years out is expected to vary widely by modality." Advance for Imaging and Radiation Therapy Professionals. December 26, 2006. Merion Publications, King of Prussia, PA). See Appendix F.

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B2d. Describe whether (and how) this project meets a higher quality or efficiency standard.

Outpatient imaging facilities continue to thrive because of their superior quality and higher efficiency standards when compared to their hospital outpatient counterparts.

Outpatient imaging offices provide more efficient and cost-effective patient care. Development of additional imaging options in the Mat Su valley and south Anchorage will not harm the local hospitals or other providers. IAP physicians treat all patients without prejudice regarding their referring provider or the patient's insurance status. IAP is committed to serving all the patients of the service area, including the indigent, with superior service.

One reason for the sharp growth of Outpatient imaging offices is their lower cost. Imaging facilities are more cost-effective than their hospital counterparts due to lower development costs, more efficient staffing, and improved workflow processes. Cost-conscious payers continue to demand the more cost-effective settings imaging facilities provide.

Keen attention to physician and patient preference is also contributing to the wide acceptance of IAP services in Alaska and dedicated imaging facilities across the country. Physicians often refer to outpatient imaging offices because of the superior treatment their patients receive and the superior resulting report they receive. The earlier they receive the report, the more responsive they can be to the needs of their patients. Dedicated outpatient imaging offices are able to offer a greater degree of flexibility, shorter turnaround between cases, and a more consistent staff. Patients are not rescheduled to meet the greater needs of hospital inpatients or emergent cases. Patients increasingly desire the comfort of a less-institutional setting and seek the more convenient scheduling and registration process of facilities like IAP's.

IAP facilities respond to patient demands, the needs of referring physicians and the overall needs of the community. The proposed project ensures that patients will continue to have a choice where they want their imaging needs met.

B3. Describe any internal deficiencies of the facility that will be corrected, and document which of these deficiencies have been noted by regulatory authorities. Note any deficiencies that will not be corrected by this project, what efforts have been taken to correct the deficiencies, and how this project will affect the deficiencies. Attach any pertinent inspection records and other relevant reports as an appendix to the application.

Not applicable to a new facility. No deficiencies have been noted.

B4. Identify the target population to be served by this project. The "target population" is the population that is or may reasonably be expected to be served by a specific service at a particular site. Explain whether this is a local program, or a program that serves a population outside of the proposed service area. Use the most recent Alaska Department of Labor and Workforce Development statistics for population data and projections. Explain and document any variances from those projections. The population may be defined in one or more ways: a patient origin analysis, the customary geographical area served by the facility using trade and travel pattern information, using Alaska Department of Labor and Workforce Development information, and according to the unique needs of

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patients requiring specialized or tertiary care (e.g. heart, cancer, kidney, alcoholism, etc.) or the needs of underserved groups.

The IAP Mat-Su facility is a local project designed to serve the needs of the residents of the Mat-Su Valley. The IAP Abbott Road facility is designed to meet the needs of the residents of the Municipality of Anchorage. It is also the most convenient imaging facility to those who live in Girdwood and Turnagain.

Table IV.B.4.a
Target Service Area - IAP Abbott Road Facility

	2006	2010	2015	2020	2025	2030	Change 2006 to 2030
Municipality of Anchorage	282,813	293,323	306,902	322,087	337,706	350,871	24.06%

Source: Alaska Economic Trends. October 2007, Volume 27, Number 10. Alaska Department of Workforce Development. Table 13, Page 10.

Table IV.B.4.b
Target Service Area - Mat-Su Valley Facility

	2006	2010	2015	2020	2025	2030	Change 2006 to 2030
Matanuska- Susitna Borough	77,174	84,328	97,843	111,501	124,299	137,682	78.40%

Source: Alaska Economic Trends. October 2007, Volume 27, Number 10. Alaska Department of Workforce Development. Table 13, Page 10.

Discussion:

Using data from the Alaska Department of Workforce Development, between 2006 and 2015, the Anchorage population is projected to grow by 24,089 or 8.5%. The Mat-Su Valley population will grow by 20,669 persons, or 26.8% over nine year period. See B4 below for further detail.

Maps of these service areas are attached below as Figure IV.B.4.b and Figure IV.B.4.d.

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Figure IV.B.4.a

13 By Region, Borough and Census Area Alaska's Population, 2006 to 2030

	2006	2010	2015	2020	2025	2030	Percentage Change 2006 to 2030	Average Annual Growth Rate 2006 to 2030
State of Alaska	670,053	698,573	734,999	771,465	806,113	838,676	25.17%	0.93%
Anchorage/Mat-Su Region	359,987	377,651	404,745	433,588	462,005	488,553	35.71%	1.26%
Municipality of Anchorage	282,813	293,323	306,902	322,087	337,706	350,871	24.06%	0.90%
Matanuska-Susitna Borough	77,174	84,328	97,843	111,501	124,299	137,682	78.40%	2.35%

Source: Alaska Economic Trends. October 2007. Volume 27, Number 10, Page 10. Prepared by the Alaska Department of Labor and Workforce Development. Research and Analysis Section, Demographics Unit. Table 13, Page 10.

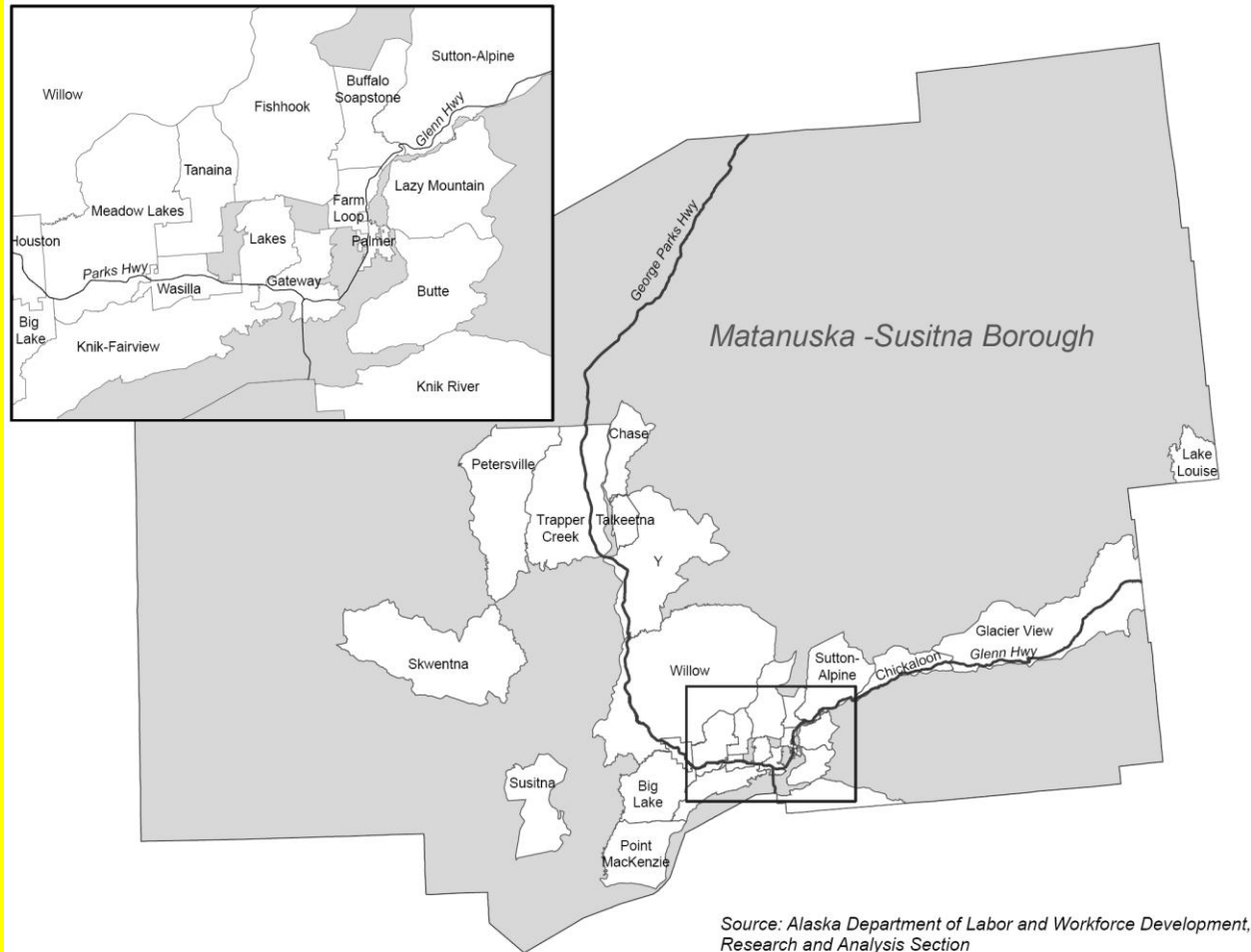
Selected Commentary:

"The boroughs and census areas with the highest projected average annual growth rates over the period include the Matanuska-Susitna Borough (2.35 percent)...The Anchorage/Mat-Su region is expected to increase by more than 128,000 people - 36 percent, with a 1.26 percent average annual growth rate - from 359,987 in 2006 to 488,553 in 2030. Following Alaska's trend of rural to urban migration, Anchorage is projected to continue its strong growth. The Mat-Su Borough, with its abundant land and increasing service resources, has experienced especially strong growth throughout Alaska's history as a state, and is projected to continue such growth.

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Figure IV.B.4.b Map of Mat-Su Service Area

The Matanuska-Susitna Borough
Communities within the borough



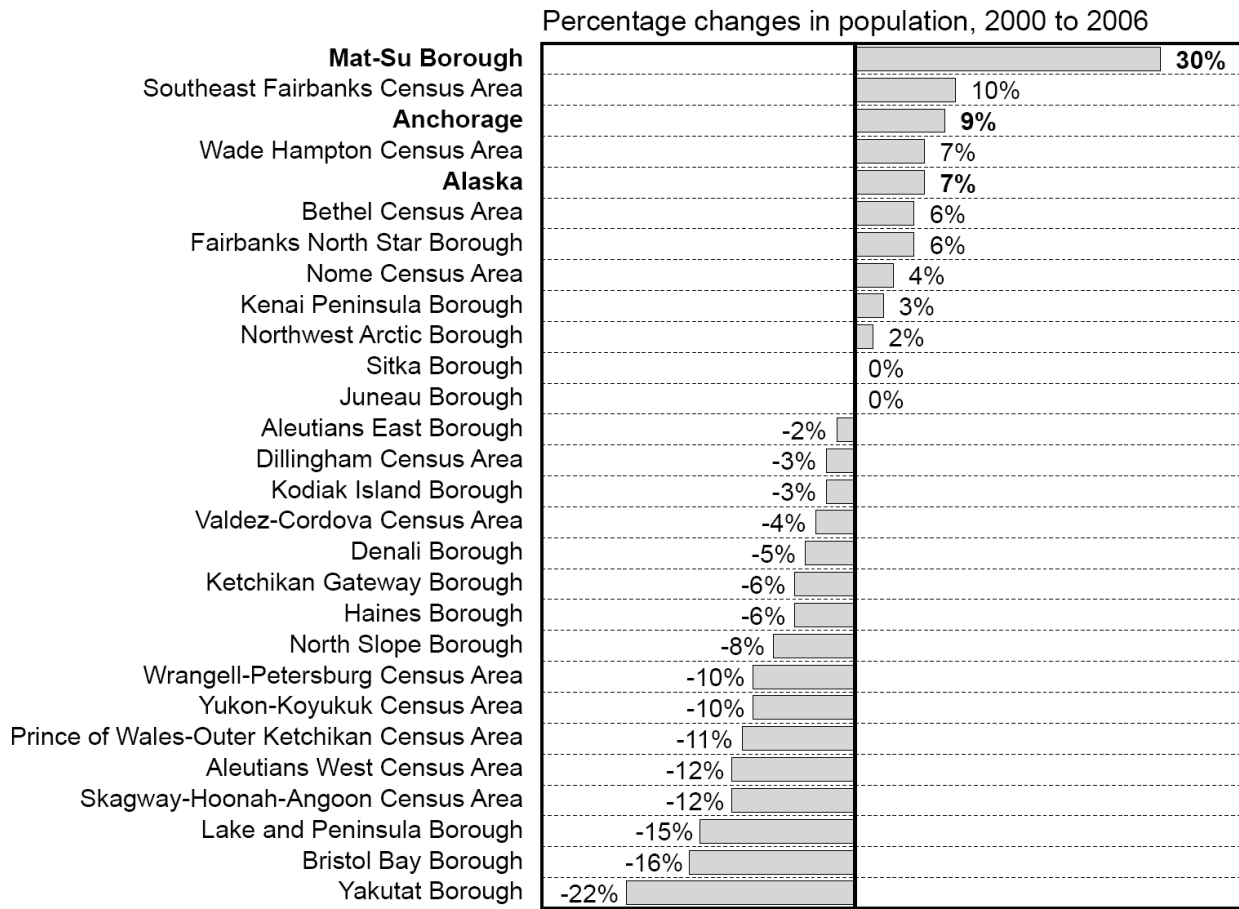
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Figure IV.B.4.c Population Growth of the Mat-Su Service Area

The Mat-Su Borough is a Standout

Population changes, 2000 to 2006

2



Source: Alaska Department of Labor and Workforce Development. Research and Analysis Section

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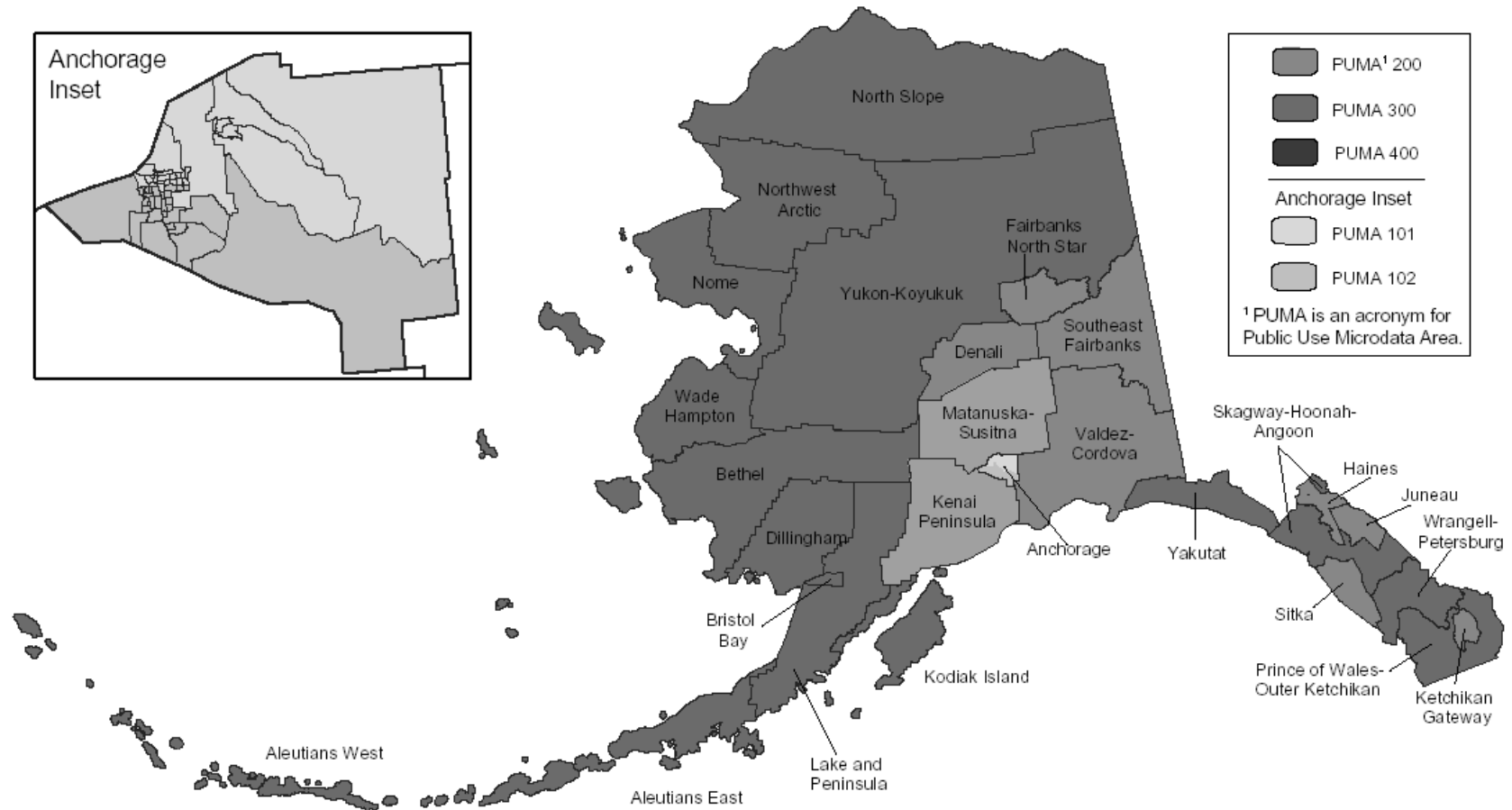
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Selected Commentary:

"The future: Assuming that the Anchorage and statewide economies continue to expand, the Mat-Su Borough is unlikely to relinquish its role as an economic standout. According to Alaska Department of Labor and Workforce Development population projections, the Mat-Su Borough could become the second-most populous area in the state by 2018. The University of Alaska Anchorage projects that the borough's population could reach 176,000 in 2030 and become home to more than a third of the region's population" (Source: Alaska Economic Trends. October 2007. Volume 27, Number 6, Page 15).

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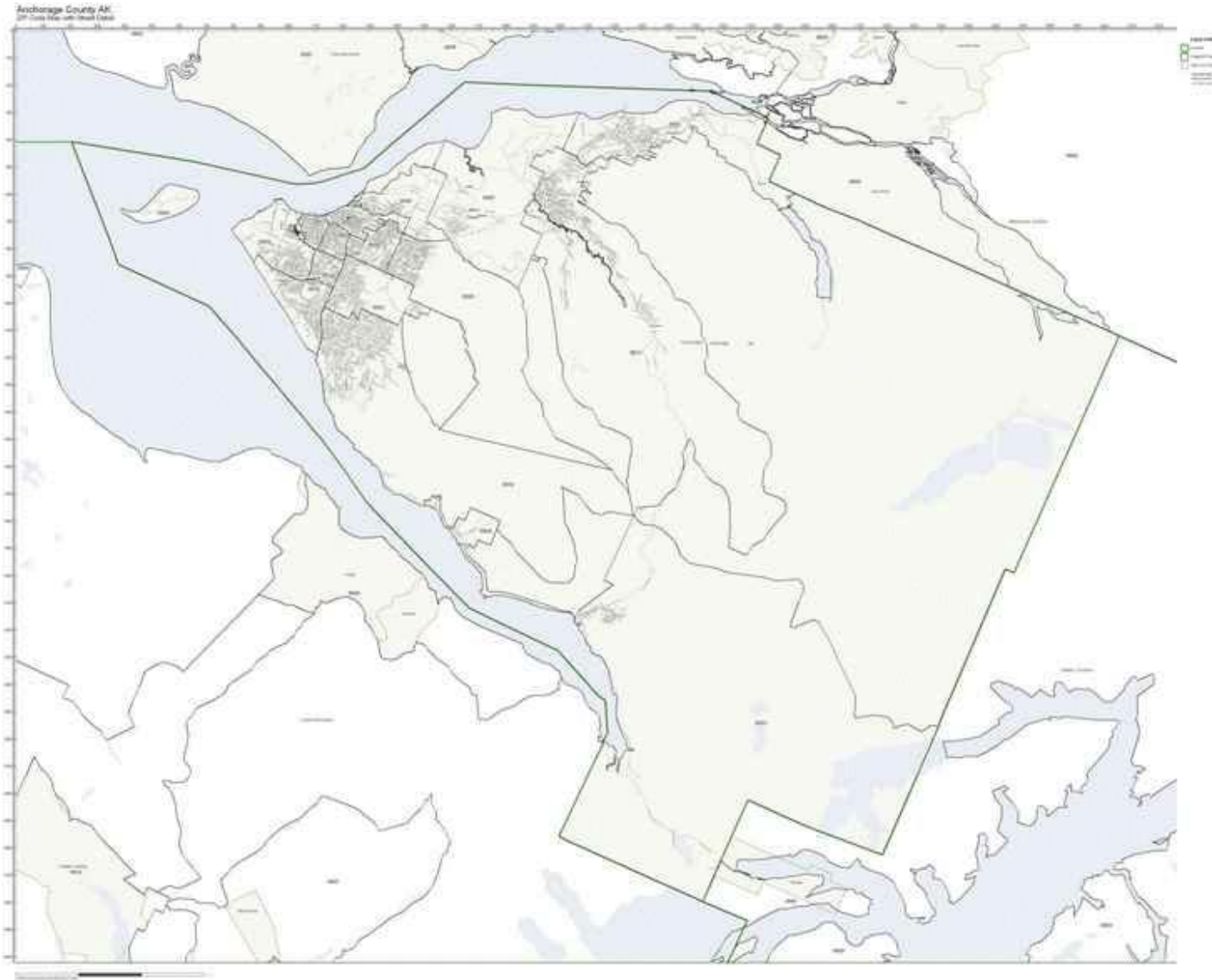
Figure IV.B.4.d State Map & Inset of Anchorage County, the Abbott Road Facility Service Area



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and the U.S. Census Bureau

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Figure IV.B.4.e Map of Municipality of Anchorage - Abbott Road Facility Service Area



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B5. Describe the projected utilization of the proposed services and the method by which this projection was derived. Include the last complete year of operation (indicate if it is a calendar year or fiscal year) and as many prior years as is feasible to show trends. Include evidence of the number of persons from the target population who are currently using these services and who are expected to continue to use the service, including individuals served out of the service area or out of state.

Between 2006 and 2015, the Anchorage population is projected to grow by 24,089 or 8.5% and the Mat-Su Valley population will grow by 20,669 persons, or 26.8% over nine-year period (see above).

The proposed project provides services whose future demand is expected to grow rapidly, outstripping population growth, with the outpatient imaging industry overall expected to grow by 17% by 2016. Modality-specific projections indicate higher growth in CT and MRI. According to Sg2 industry projections:

- CT utilization is expected to increase 57% between 2005 and 2016 due to transfer of volume from X-ray and interventional diagnostic procedures.
- Overall MRI utilization will surge by 44% by 2016, due in part to continued growth in spine and joint studies and aging baby boomers' expectations of continued high activity levels as they age. Minimally invasive procedures will increase the number of patients opting for surgery, further increasing MR volumes. Breast MR examinations in support of cancer diagnostics (an area of particular IAP expertise) will be one of the fastest-growing applications.
- Ultrasound volume will increase 16% by 2016. More screenings for vascular disease including abdominal aortic aneurysm, carotid and extremity vascular studies-will drive growth.
- X-ray volumes will expand 8% by 2016. Many chest, abdominal and musculoskeletal X-ray studies will shift to CT and MRI.
- Digital mammography volumes will double by 2016.

There are no figures available to document the extent for out-migration to receive radiology imaging service, though it is expected to be small.

The IAP facility projections below are based on:

- Population growth in the service areas
- Increasing demand nationwide for the services provided (as outlined above)
- The opportunity to increase patient access to the specialized professional expertise of IAP professionals
- The opportunity to increase access to enhanced technology
- The opportunity to provide higher levels of service and quality, at lower cost, than existing facilities.

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Figure IV.B.5.1
Utilization of Services: Abbott Road Facility

Year	MRI Scans	CT Scans	Ultrasound	Mammo- graphy	General Radiography	Therapeutic Procedures
Jun-06	16	10	2	9	3	0
Jul-06	26	11	9	9	6	0
Aug-06	33	17	14	15	28	0
Sep-06	40	13	25	9	25	0
Oct-06	76	40	27	28	31	0
Nov-06	63	45	34	26	46	0
Dec-06	68	54	48	21	34	0
2007	1045	586	586	1021	587	110
2008	2450	1352	1934	1850	1376	1512
2009	3109	2528	1934	2220	1376	1814
2010	3945	3105	2321	3268	1652	2177

Discussion:

Both CT and MRI units are targeted to achieve 3000 scans by the end of the third and fourth year of operation.

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Figure IV.B.5.2
Utilization of Services: Mat-Su Facility

Year	MRI Scans	CT Scans	Ultrasound	Mammo-graphy	DEXA	General Radiography	Therapeutic Procedures
Jun-06	15	6	17	54	3	7	0
Jul-06	34	20	36	97	7	16	0
Aug-06	36	36	53	151	15	38	0
Sep-06	57	47	78	150	18	43	0
Oct-06	74	62	93	223	24	61	0
Nov-06	71	68	103	208	25	87	0
Dec-06	66	84	91	265	25	67	0
2008	1178	944	1220	2807	261	1345	14
2008	2250	2205	2956	3305	364	1231	189
2009	3050	3105	2235	3966	397	1477	227
2010	3450	3722	2423	4759	476	1773	272

Discussion:

Both CT and MRI units are targeted to achieve 3000 scans by the end of the third and fourth year of operation.

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B5b. Include evidence of the number of persons who will begin to use any new services that are not now available, accessible, or acceptable to the target population

Although the service provided as a result of this project is not a new service, rather, a dedicated outpatient radiology center staffed by IAP radiologists is a new way to deliver services not currently accessible in the target markets.

The IAP facilities increase accessibility to these services as a result of lower prices and greater convenience, thus addressing latent demand. That is, residents who may have put off procedures in the past due to financial constraints can now potentially afford these procedures.

Section B.5.c below indicates that since the opening of the IAP facilities, demand has increased for both CT and MR imaging in both service areas.

With regard to acceptability to the target population, patients tend to prefer outpatient services delivered in a dedicated outpatient facility to hospital-based alternatives because of their lower cost and greater convenience. There is much less administrative paperwork and "red tape" at an outpatient imaging facility compared to the admissions process at most hospitals. Patients also prefer the faster overall turnaround.

Communication with area patients and physicians (including attached letters of support) indicate there are residents of the target service who leave the community for outpatient imaging.

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B5c. Provide annual utilization data and demand trends for the five most recent years and monthly utilization data for the most recent incomplete year prior to the application for each existing facility offering a similar service in the service area. Provide projections for utilization for three years (or the appropriate planning horizon set out in the review standards related to this project) after construction, and show methodology used to determine use.

The information in the following two tables represents the most current information available through the DHSS on the utilization of area facilities for the services in question.

Table IV.B.5.c.1
CT Data (source: DHSS Staff)

Facility	Current Equipment	2007	2006	2005	2004	2003	2002
Anchorage :							
Alaska Native Medical Center	16 Slice GE Light Speed Pro	10967	10262	10162	9217	7519	6845
Alaska Open Imaging	16 Slice Toshiba	Unk.	Unk.	1171	995	297	
Alaska Regional Hospital	Single-slice Siemens Balance	NLIS	863	936	879	921	875
Alaska Regional Hospital	Siemens Sensation	7306	-	-	-	-	-
Alaska Regional Hospital	4 slice Siemens Volume Zoom	828	7772	8417	7903	8283	7870
Diagnostic Health (was HealthSouth)	8 slice GE Light Speed	1988	2311	2794	2645	2666	1920
Providence AK Medical Center	16 slice GE Light Speed	7814	6512	9577	9968	-	-
Providence AK Medical Center	4 slice Toshiba	NLIS		5157	5368	10850	11369
Providence AK Medical Center	1 slice GE CTI	NLIS		5842	6122	6631	4867
Providence AK Medical Center	64 slice GE	11722	9768	-	-	-	-
Providence PIC	16 Slice GE LIGHTSPEED PRO	7452	7177	6139	3877	Replaced Discovery	
Providence PIC	8 slice GE DISCOVERY**	Replaced by Lightspeed Pro				912	Unk.
Elmendorf Air Force Base	16 Slice GE LIGHTSPEED PRO	175	New	-	-	-	-
Elmendorf Air Force Base	Siemens Somatom	11101	7834	-	-	-	-
Mat-Su							
Mat-Su Regional Medical Center	4 slice Siemens Somatom	211	393	1383	1227	1011	
Mat-Su Regional Medical Center	4 slice Siemens Somatom	77	309	4542	4101	3691	1898
Mat-Su Regional Medical Center	64 slice GE VCT	6678	5867	Put in service 1/2006			
Alaska Open Imaging - Wasilla	4 Slice Toshiba	Unk.	Unk.	1296	1257	1010	780

Note: "NLIS" = no longer in service; "Unk." = data unavailable

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Table IV.B.5.c.1.a
Projected Number of CT Scans Municipality of Anchorage

Year	Pop. Notes	Population	Growth Rate	# Scans: Source	CT Scans	Scans per 1,000	Scan Growth Rate	Incremental Scans Since 2006
2001	1	264,903	1.77%	DHSS	28,114	106		
2002	1	267,824	1.10%	DHSS	33,746	126	18.61	
2003	1	273,024	1.94%	DHSS	37,782	138	9.83%	
2004	1	277,627	1.69%	DHSS	45,979	166	19.68%	
2005	1	277,980	0.13%	DHSS	49,024	176	6.49%	
2006	1	282,813	1.74%	DHSS	52,499	186	2.80%	6,854
2007	2	285,405	0.92%	DHSS	59,353	208	12.03%	10,393
2008	2	288,020	0.92%	Estimate	62,892	218	5.00%	14,142
2009	2	290,659	0.92%	Estimate	66,641	229	5.00%	18,116
2010	1	293,323	0.92%	Estimate	70,615	241	5.00%	22,326

Population Notes:

1. Official ADWD Projection
2. Interpolated based on 2006 & 2010 projections

Discussion:

From 2001 to 2007, the Anchorage use rate of CT scans per thousand population increased from 106 to 208 (note, Alaska Open Imaging was not included since utilization is not available for 2006 or 2007). CT use rates have been growing rapidly nationwide, and this growth is expected to continue.

According to an industry forecast by Sg2, a health care intelligence and consulting firm based in Skokie, Illinois³, "CT utilization will soar by 57 percent by 2016, as it captures volume from X-ray and interventional diagnostic procedures."

Assuming a relatively modest 5% increase in the use rate per year from 2008 to 2010, it is expected that Anchorage providers will deliver an additional 18116 scans in the three years since IAP opened in 2006. This increase is sufficient to allow the IAP CT scanner to achieve the DHSS target utilization of 3000 scans by the end of the third year of operation.

³ Sharma, Amit. "Ups and Downs: Utilization 10 years out is expected to vary widely by modality." Advance for Imaging and Radiation Therapy Professionals. December 26, 2006. Merion Publications, King of Prussia, PA). See Appendix F.

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Table IV.B.5.c.1.b
Projected Number of CT Scans Matanuska-Susitna Borough

Year	Pop. Notes	Population	Growth Rate	# Scans: Source	CT Scans	Scans per 1,000	Scan Growth Rate	Incremental Scans Since 2006
2001	1	61,765	4.12%	DHSS	3,186	52		
2002	1	64,351	4.19%	DHSS	3,662	57	10.32%	
2003	1	67,532	4.94%	DHSS	4,702	70	22.35%	
2004	1	70,401	4.25%	DHSS	5,328	76	8.70%	
2005	1	74,011	5.13%	DHSS	5,925	80	5.78%	
2006	1	77,174	4.27%	DHSS	6,569	85	6.33%	
2007	2	78,904	2.24%	DHSS	6,966	88	3.72%	397
2008	2	80,672	2.24%	Estimate	8,190	102	15.00%	1,621
2009	2	82,480	2.24%	Estimate	9,630	117	15.00%	3,061
2010	1	84,328	2.24%	Estimate	11,323	134	15.00%	4,754

Population Notes:

1. Official ADWD Projection
2. Interpolated based on 2006 & 2010 projections

Discussion:

From 2001 to 2007, the Mat-Su use rate of CT scans per thousand population increased from just 52 to 88 (note, Alaska Open Imaging was not included since utilization is not available for 2006 or 2007). This use rate is less than half the Anchorage rate, implying that many residents of Mat-Su Valley are traveling there for scans. As local options increase, and Mat-Su residents are no longer forced to travel to Anchorage to receive CT scans, it seems reasonable that local Mat-Su use rates will increase significantly. This seems reasonable given the CT demand forecast reviewed above.

CT use rates have been growing rapidly nationwide, and this growth is expected to continue, as discussed above. Assuming an annual increase in the use rate of 15% from 2008 to 2010, it is expected that Mat-Su providers will deliver an additional 3061 scans in the three years since IAP opened in 2006. This increase is sufficient to allow the IAP CT scanner to achieve the DHSS target utilization of 3000 scans by the end of the third year of operation.

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Table IV.B.5.c.2
MRI Data (source: DHSS Staff)

Facility	Current Equipment	Full Body	2007	2006	2005	2004	2003	2002
ANCHORAGE								
AK Innovative Imaging	0.2T Siemens Magnetom Jazz (see note 1)	No	unknown	unknown	380	359	262	N/A
AK Open Imaging	0.3T Hitachi Open Unit		unknown	unknown	2096	2200	1618	N/A
AK Regional Hospital	1.5T GE Horizon LXi Short-bore		3099	3372	3371	3229	3259	3823
AK Spine Institute Imaging (see note 2)	1.5T GE Signa Infinity w/excite		2618	2401	2288	802	-	-
ANC Fracture & Ortho Clinic	0.2T GE Lunar E-scan Open Unit (see note 3)	No	941	987	846	683	728	582
Anchorage Diagnostic Health (previously HealthSouth)	GEHT 1.5T Signa Excite HD MR System with CXK4 Magnet		3484	3554	3476	3937	3922	3962
Providence AK Medical Center	1.5T Siemens		3000	884	-	-	-	-
Providence PIC Total	1.5T GE Signa		3314	3944	4378	4385	8765	9045
Providence PIC Total	0.35T Toshiba Opart Open MR		Not in Service	-	-	-	-	-
Providence PIC Total	1.5T GE Signa Twin		3313	3943	4377	4384	3245	-
Alaska Native Medical Center	1.5T GE Signa		3156	3314	3215	3296	2523	2137
Elmendorf Air Force Base	1.5T GE Signa		4701	2717				
MAT-SU VALLEY								
AK Open Imaging	0.35 Tesla Toshiba Open Unit				1875	2073	1867	2116
Mat-Su Regional Hosp	1.0 Tesla Phillips Gyroscan Intera		Not in Service	145	2172	2012	1401	1739
Mat-Su Regional Hosp	1.5 Tesla GE Excite		2038	1888	N/A	N/A	N/A	N/A

Note 1. AK Innovative Imaging performs hands & feet only.

Note 2. AK Spine Institute previously known as Rehab Medicine Associates.

Note 3. The GE Lunar E-Scan does hands and feet only.

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Table IV.B.5.c.2.a
Projected Number of MRI Scans Municipality of Anchorage

Year	Pop. Notes	Population	Growth Rate	# Scans: Source	MRI Scans	Scans per 1,000	Scan Growth Rate	Incremental Scans Since 2006
2001	1	264,903	1.77%	DHSS	18,554	74		
2002	1	267,824	1.10%	DHSS	19,553	72	-2.1%	
2003	1	273,024	1.94%	DHSS	22,442	82	13.8%	
2004	1	277,627	1.69%	DHSS	20,716	75	-9.2%	
2005	1	277,980	0.13%	DHSS	22,199	80	7.0%	
2006	1	282,813	1.74%	DHSS	25,116	89	11.2%	
2007	2	285,405	0.92%	DHSS	27,626	97	9.0%	2,510
2008	2	288,020	0.92%	Estimate	28,716	100	3.0%	3,600
2009	2	290,659	0.92%	Estimate	29,848	103	3.0%	4,732
2010	1	293,323	0.92%	Estimate	31,025	106	3.0%	5,909

Population Notes:

1. Official ADWD Projection
2. Interpolated based on 2006 & 2010 projections

Discussion:

DHSS data show that the Anchorage use rate of MR scans per thousand population increased from 74 to 97 between 2001 and 2007 (note, Alaska Open Imaging was not included since utilization is not available for 2006 or 2007). MRI utilization has grown rapidly nationwide, so the growth rate of 31% over the period is not surprising.

High growth rates in MRI are expected to continue. According to Sg2, a health care intelligence and consulting firm based in Skokie, Illinois⁴, from 2005 to 2016, "overall MRI utilization will surge by 44 percent."

Assuming a relatively modest 3% increase in the use rate per year from 2008 to 2010, it is expected that Anchorage providers will deliver an additional 4732 scans in the three years since IAP opened in 2006. This increase is sufficient to allow the IAP MRI scanner to achieve the DHSS target utilization of 3000 scans by the end of the third year of operation.

⁴ Sharma, Amit. "Ups and Downs: Utilization 10 years out is expected to vary widely by modality." Advance for Imaging and Radiation Therapy Professionals. December 26, 2006. Merion Publications, King of Prussia, PA). See Appendix F.

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Table IV.B.5.c.2.b
Projected Number of MRI Scans Matanuska-Susitna Borough

Year	Pop. Notes	Population	Growth Rate	# Scans: Source	MRI Scans	Scans per 1,000	Scan Growth Rate	Incremental Scans Since 2006
2001	1	61,765	4.12%	DHSS	1,157	19		
2002	1	64,351	4.19%	DHSS	1,739	27	44.26	
2003	1	67,532	4.94%	DHSS	1,401	21	-23.23%	
2004	1	70,401	4.25%	DHSS	2,012	29	37.76%	
2005	1	74,011	5.13%	DHSS	2,172	29	2.69%	
2006	1	77,174	4.27%	DHSS	2,033	26	-10.24%	
2007	2	78,904	2.24%	DHSS	2,038	26	-1.95%	5
2008	2	80,672	2.24%	Estimate	3,230	40	55.00%	1,197
2009	2	82,480	2.24%	Estimate	5,118	62	55.00%	3,085
2010	1	84,328	2.24%	Estimate	6,541	78	25.00%	4,508

Population Notes:

1. Official ADWD Projection
2. Interpolated based on 2006 & 2010 projections

Discussion:

From 2001 to 2007, the Mat-Su use rate of MRI scans per thousand population increased slightly from 19 to 26 (note, Alaska Open Imaging was not included since utilization is not available for 2006 or 2007). The rate fluctuated throughout the period, as it does in CT scanning. This may be due to the construction of the new Mat-Su Regional Hospital.

As we saw for CT scans, the Mat-Su use rate is much lower than the Anchorage rate. No doubt some of this difference reflects the tertiary nature of at least a portion of Anchorage MRI volume. Nevertheless, the Mat-Su MRI rate is only 27% that of the Anchorage rate, once again implying that many residents of Mat-Su Valley are traveling there for scans.

As local options increase, and Mat-Su residents are no longer forced to travel to Anchorage to receive MR scans, it seems reasonable that local Mat-Su use rates will increase significantly. This seems reasonable given the nationwide increase in MRI demand forecast noted above.

Assuming that Mat-Su use rates rise to approach something like 50% of the Anchorage rate by 2009, it is expected that Mat-Su providers will deliver an additional 3085 scans in the three years since IAP opened in 2006. This increase is sufficient to allow the IAP Open Short Bore MRI unit to achieve the DHSS target utilization of 3000 scans by the end of the third year of operation.

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B5d. If the project is an acquisition of a new piece of major equipment or a new service, provide utilization data for similar services, existing equipment, or older technology. Indicate whether similar existing equipment will continue to be used and the project's effect on utilization of similar services. If this service or equipment was not in place in the service area, compare the expected utilization with other similar communities in Alaska or in other states.

This project acquires major medical equipment and establishes new CT and MRI services. This project is not expected to have any impact on existing equipment, which will continue to be used.

Table IV.B.5.d.1 CT Data (source: DHSS Staff)

Facility	Current Equipment	2007	2006	2005	2004	2003	2002
Providence AK Medical Center	16 slice GE Light Speed	7814	6512	9577	9968	-	-
Providence AK Medical Center	4 slice Toshiba	NLIS		5157	5368	10850	11369
Providence AK Medical Center	1 slice GE CTI	NLIS		5842	6122	6631	4867
Providence AK Medical Center	64 slice GE	11722	9768	-	-	-	-
Providence PIC	16 Slice GE LIGHTSPEED PRO	7452	7177	6139	3877	Replaced GE Discovery	
Providence PIC	8 slice GE DISCOVERY**	Replaced by Lightspeed Pro				912	Unk.

Comments: NLIS = "no longer in service." All IAP-accessible units are fully utilized.

Table IV.B.5.d.2 MRI Data (source: DHSS Staff)

Facility	Current Equipment	2007	2006	2005	2004	2003	2002
Providence AK MC	1.5 Tesla Siemens	3000	884	Service started in 2006			
Providence PIC Total	1.5 Tesla/GE Signa	3314	3944	4378	4385	8765	9045
Providence PIC Total	0.35 T Toshiba Opart Open MR	No longer in use					
Providence PIC Total	1.5 Tesla/GE Signa Twin	3313	3943	4377	4384	3245	n/a

Comments: All IAP-accessible units are fully utilized. IAP units also expand the range of technological capability (i.e., the Abbott Road 3T magnet and the Short Bore Open 1.5T in Mat-Su).

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Discussion:

The two IAP facilities address an unmet need for additional capacity accessible by IAP radiologists and their patients.

IAP Radiologists have an exclusive contract to provide services to Providence Alaska Medical Center. The fact that all PAMC facilities are fully utilized for both CT and MRI creates an institutional need for additional capacity in both modalities.

Even if there is unscheduled capacity available at other providers, it cannot be accessed by the patients of IAP physicians without requiring them to change radiologists. The exclusive contract that IAP physicians have with PAMC precludes them from applying for privileges at other providers, while other hospital providers like Mat-Su Regional or Alaska Regional Medical Center in Anchorage, are also bound by contract with their radiologists that preclude them from accepting applications from other physicians like those in IAP.

Therefore, since the MR & CT units that they can use to treat their patients are fully utilized (i.e., according to the DHSS statistics for PAMC in Anchorage and the Providence Imaging Center in Anchorage), IAP physicians must either obtain 1) more capacity that they can use, or 2) require that their patients change radiologists in order to access the service at another facility.

The second alternative is unnecessarily coercive and contrary to the valuable health system goal of increasing patient choice where possible.

Since all Providence Alaska Medical Center facilities are fully utilized for both CT and MRI imaging, this project addresses an unmet need for additional capacity accessible by the patients of IAP physicians and their patients.

Closing either facility is not in the public interest. In the Mat-Su Valley, it would require that patients either 1) switch their care to a radiologist affiliated with Mat-Su Regional Hospital, on the one hand, or 2) travel to Anchorage in order to maintain the integrity of their care team on the other. Neither option serves patients, who need ready and convenient access to care close to home at the existing IAP Mat-Su facility.

In Anchorage, there is also an unmet need for capacity since the existing PAMC units are fully utilized as demonstrated above. Furthermore, as more patients seek the care of IAP physicians, additional capacity is required to meet their needs. PAMC seeks to add this capacity as an IAP partner.

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B5e. If an increase in utilization is projected, list the factors that will affect the increase. Provide annual utilization projections for three to five years in the future, as applicable, for each specific service in the proposal (in general, equipment projections are for three years, and new beds and facility construction are for five years). Include each of the following data: number of X-Rays, number of CT and MRI scanners.

Figure V.B.5.e.1
Utilization of Services: Abbott Road Service Area

Year	MRI Scans	CT Scans	Ultrasound	Mammo-graphy	General Radiography	Therapeutic Procedures
Jun-06	16	10	2	9	3	0
Jul-06	26	11	9	9	6	0
Aug-06	33	17	14	15	28	0
Sep-06	40	13	25	9	25	0
Oct-06	76	40	27	28	31	0
Nov-06	63	45	34	26	46	0
Dec-06	68	54	48	21	34	0
2007	1045	586	586	1021	587	110
2008	2450	1352	1934	1850	1376	1512
2009	3109	2528	1934	2220	1376	1814
2010	3945	3105	2321	3268	1652	2177

Discussion:

Both CT and MRI units are targeted to achieve 3000 scans by the end of the third and fourth year of operation.

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Figure V.B.5.e.2
Utilization of Services: Mat-Su Facility

Year	MRI Scans	CT Scans	Ultrasound	Mammo-graphy	DEXA	General Radiography	Therapeutic Procedures
Jun-06	15	6	17	54	3	7	0
Jul-06	34	20	36	97	7	16	0
Aug-06	36	36	53	151	15	38	0
Sep-06	57	47	78	150	18	43	0
Oct-06	74	62	93	223	24	61	0
Nov-06	71	68	103	208	25	87	0
Dec-06	66	84	91	265	25	67	0
2008	1178	944	1220	2807	261	1345	14
2008	2250	2205	2956	3305	364	1231	187
2009	3050	3105	2235	3966	397	1477	227
2010	3450	3722	2423	4759	476	1773	272

Discussion:

Both CT and MRI units are targeted to achieve 3000 scans by the end of the third and fourth year of operation.

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B5e. If an increase in utilization is projected, list the factors that will affect the increase.

An increase in utilization of outpatient imaging services is expected for the following reasons:

- Increased demand for key modalities – The demand rate for low-dose CT and MRI is increasing due to improved technology and a wider range of application.
- Price – Greater efficiency leads to lower prices. It is well documented that lower prices increase demand where co-payments are significant by actualizing latent demand.
- Accessibility – Patients in the Mat-Su Valley previously had to travel to Anchorage to access the services of IAP radiologists. This project removes that impediment and makes it possible, for the first time, for Mat-Su residents to access the expertise of these physicians close to home.
- Convenience – As patients pay an increasing share of the rising cost of health care, they are expected to take a greater interest in diagnostic and preventative care, provided that this care is reasonably priced and convenient. Patients who have put off mammograms, for example, may tend to blame their noncompliance on the inconvenience and expense of seeking care. A high-quality, patient-centered, convenient and affordable alternative to expensive and cumbersome hospital-based care may be expected to increase compliance with diagnostic testing and increase utilization rates.
- IAP has programs in place to raise patient awareness of the benefits that dedicated outpatient imaging facilities can offer with regard to cost, convenience, and efficiency.

The factors noted above act to increase the rate of demand for outpatient imaging services, yielding higher volumes than those expected from population increases alone. As demonstrated by the Alaska Department of Labor & Workforce Development forecasts outlined earlier, sustained and dramatic (in the case of the Mat-Su Valley) population growth is projected for these service areas. Therefore, similarly sustained and dramatic utilization growth can be inferred as well since long-term trends demonstrate that outpatient imaging procedure utilization increases at least as rapidly as population.

B5f. If any services will be reduced, indicate how the proposed reduction will affect the service area needs and patient access.

Not applicable to this project.

B5g. Provide any other information that may be pertinent to establishing the need for this project.

The space program appears below.

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Table IV.G.1
SPACE PROGRAM: SUMMARY

Description	Qty	Total NSF
Corridor Access		1500
CLINICAL TREATMENT AREAS:		
<i>Mat-Su</i>	7	3354
<i>Abbott Road</i>	6	4740
<i>Staff Support Space</i>		705
Ancillary Support Areas (sterile)		0
Mechanical & Electrical Support Spaces (may not be necessary after study)		755
Walls		200
Total, net square foot		11,052

Program Design Considerations

A. Radiographic Equipment

Fixed-installation radiographic equipment designed and specified for the diagnostic and interventional procedures is required. The equipment parameters are sufficient to perform all diagnostic and interventional procedures. Some of these parameters include the following:

1. Image receptor size
2. Permanent recording modes
3. X-ray tube focal spot(s), output, heat load, and cooling capacity
4. Generator capacity
5. Software packages
6. Local modality image storage capacity
7. Picture archiving and communications system (PACS) – capability ability to integrate with picture archival and communications system
8. Radiation dose management package
9. Patient table weight limits

Suites designed for multiple tasks generally function in a less-than-ideal way for each of the individual procedures, compared with suites designed for fewer dedicated purposes.

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B. Patient Preparation Area and Recovery Room

To optimize utilization of resources, space has been allocated to accommodate patients while awaiting procedures and for recovery for outpatients.

C. Medical/Surgical Supply Inventory

The suites have sufficient space and a control mechanism to manage the required inventory. This space is located close to the suite.

The following inventory items are available:

- Sufficient facility budgetary commitment to sustain the supply and disposable equipment needs of the suite
- Dedicated personnel responsible for inventory management
- An inventory control system

D. Non-radiographic Equipment

The modern diagnostic and interventional suite requires other invasive and noninvasive equipment for non-radiographic imaging and therapeutic procedures. The following list of such equipment is intended to serve as a guide:

1. Transcutaneous ultrasound
2. Intra-arterial ultrasound
3. Tissue ablation devices, such as radio-frequency, cryotherapy, lasers, microwaves, and associated probes
4. Atherectomy devices with associated catheters and heads
5. Thrombectomy devices with catheters

E. Staffing

IAP radiologic technologist staffing levels are sufficient to always provide at least one technologist per procedure room to perform imaging functions as well as functions related to inventory, cleanup, room preparation, film or digital image processing, and data entry into inventory management or quality assurance computer programs.

To achieve consistent coverage, this requires greater than one full-time equivalent staff member per procedure room to cover vacations, sick time, and educational leave and can vary from 1.2 to approximately 1.8 full-time equivalents per staff position.

ARA Radiologists

ARA radiologists offer patient and referring physicians access to imaging sub-specialists with experience and expertise in such areas as mammography with digital imaging, ultrasound, CT

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with 3-Dimensional Imaging, MRI, MRA, CTA, PET, nuclear medicine, and interventional radiology.

ARA radiologists currently serve the facilities of Providence Alaska Medical Center and Health Services, and a patient population that extends well beyond the Anchorage area.

- Dr. Jon Coyle was raised in Anchorage and attended East High School. He is following in the footsteps of his father, Maurice Coyle, who has been involved with Providence for many years. Coyle completed his diagnostic radiology fellowship, a vascular and interventional radiology fellowship and a multi-organ system MRI fellowship at the University of Alabama, Birmingham. Coyle is the medical director for PIC's MRI department. Dr. Coyle specializes in MRI and Interventional/Vascular Radiology.
- Dr. Denise Farleigh is board certified by the American Board of Radiology, and her special interests include women's imaging, particularly breast. Dr. Denise Farleigh is a former President of the Medical Staff, and is the current Chair of Radiology. Some of the organizations of which she is a member include ACR, RSNA, Roentgen Ray, American Women in Radiology, Society of Breast Imaging, and AMA.
- Dr. Chakri Inampudi completed his residency in Nuclear medicine and Diagnostic Radiology at University of Alabama, Birmingham, and his Vascular and Interventional Fellowship at the same place. He specializes in Interventional and Vascular Radiology.
- Dr. Christopher L. Kottra grew up in Anchorage, Alaska and attended East High School. He is following in the footsteps of his father, John Kottra. He is board certified in Diagnostic Radiology, and his medical interests include imaging of the chest, abdomen, and pelvis, MRI and CT Scan.
- Dr. Erik John Maurer completed fellowships in Interventional Radiology at the University of Virginia and Pediatric Radiology at Harvard University Children's Hospital of Boston. During his radiology residency, also at the University of Virginia, he completed a Masters Degree in Epidemiology. He has been involved in medical research, beginning at the University of Wisconsin where he received an Honors Degree in Molecular Biology, working in their cardiac surgery research laboratory. Professional interests include the development and provision of premier radiology service for the people of Alaska, with emphasis on pediatric and interventional and vascular radiology.

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- Dr. Leonard Sisk, IAP Medical Director, attended Medical School at the University of Maryland and completed his internship, residency and fellowship in Imaging at Brooke Army Medical Center. He is board certified in Diagnostic Radiology.
- Dr. W. Bryan Winn was raised in Anchorage and graduated from Service High School. He completed his fellowship in Neuroradiology at Stanford University Hospital. Prior to that he completed a residency in Diagnostic Radiology at the University of Michigan in Ann Arbor. As a participant in the WWAMI program at the University of Washington School of Medicine, Bryan was able to return to Anchorage for many of his clinical rotations. He feels a strong commitment to providing the highest quality medical care to fellow Alaskans and those who visit our state.
- Dr. David Moeller was born in Dayton, Ohio and grew up in Kalamazoo, Michigan. He attended Purdue University in Indiana and the University of Michigan in Ann Arbor. He was Chief Resident at the University of Washington in Seattle where he completed his fellowship in CT and Ultrasound. Dr. Moeller is Board certified in diagnostic radiology and is a long-time Alaska resident. Dr. Moeller is a member of the Board of Directors for the Alaska Center for the Performing Arts in Anchorage.
- Dr. Janice Brooks has returned to Alaska, her childhood home, from Mercy Medical Center in Nampa, Idaho where she served as Chair of the Nampa Radiologists since 2001. Dr. Brooks earned her medical degree from the University of Arkansas for Medical Sciences and completed her Fellowship in Pediatric Radiology at the Children's Hospital Medical Center in Cincinnati, Ohio. Dr. Brooks was certified in diagnostic radiology in 1992 and became a certified Pediatric Radiologist in 1995. Today she continues to play an active role in a variety of societies, including the American Medical Association, the Society for Pediatric Radiology, and the American Society of Pediatric Neuroradiology. Dr. Brooks lived in Alaska when her father was stationed at Fort Greeley and Fort Richardson.

B5h. Attach letters of support from local and regional agencies, other health care facilities, individuals, governmental bodies, etc.

Please see Appendix C.

B6. Include your calculations of numerical need for each proposed activity for your service area. If the proposed project is expected to have a larger capacity than that projected by (and available from) the department, explain the rationale and provide documentation to support the larger capacity.

Please see Section IV.B.5.c above for a calculation of the need for CT and MRI in the two IAP service areas. According to these calculations and those shown in IV.B.5.d, the proposed project

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does not increase CT or MRI capacity beyond that needed to meet current and expected need.

C. AVAILABILITY OF LESS COSTLY OR MORE EFFECTIVE ALTERNATIVES

- 1. Describe the different alternatives considered in developing this project. Explain why the particular alternative for providing the services proposed by this application was selected. Include as an alternative a discussion of the effect of doing nothing.**

Alternative 1: Do Nothing

Doing nothing will perpetuate the inability for some Alaskans to receive timely and appropriate diagnostic and therapeutic radiology services in a timely, cost-effective and high-quality manner.

If patients are to be treated in a manner they deserve with regard to access, cost, and general patient care an alternative option would need to be explored.

This project will bring the unparalleled expertise of IAP physicians to the residents of the Mat-Su Valley and make their services available in a more convenient and geographically accessible location in the south Anchorage area as well.

THEREFORE, ALTERNATIVE #1 IS NOT ACCEPTABLE.

Alternative 2: Continue to operate only in the PIC and at Providence Medical Center.

The facilities at PAMC and the PIC are fully utilized by existing patients. Additional IAP patients cannot be conveniently scheduled, and the location is not easily accessible to patients living in the Mat-Su Valley or even south Anchorage, and the facilities themselves are not as efficient or convenient or patient-friendly.

THEREFORE, ALTERNATIVE #2 IS NOT ACCEPTABLE.

Alternative 3: Apply for privileges at facilities with available capacity and treat IAP patients there.

According to data supplied by DHSS, the CT and MRI equipment at Mat-Su Regional Hospital is not being fully utilized. IAP physicians and their patients are unable to access this capacity because Mat-Su Regional Hospital is precluded from considering requests for radiology privileges from physicians outside the group with whom they have an exclusive contract. IAP has a similar provision in their contract with Providence Alaska Medical Center that precludes them for applying for privileges elsewhere.

Both these contracts meet many other legitimate needs of the parties involved.

THEREFORE, ALTERNATIVE #3 IS NOT ACCEPTABLE.

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Alternative 4: Close the IAP facilities and send IAP patients to other providers.

As a result of the process outlined above in Section III.C.L, IAP has already invested over \$10 million to establish two radiology offices, and both are successful. If these facilities are closed, very little of this investment would be recoverable, resulting in a substantial loss to the investors.

Closing either or both facilities would not be in the public interest since they expand access to IAP physician services. IAP patients are primarily new patients, who were otherwise not being served. IAP operates a low-cost, high-quality service whose on-going financial viability demonstrates its attractiveness to the patients and referring physicians and other health care providers in the target service areas. To force patients to change radiologists in order to increase the volume of a facility that has had sufficient time to fully meet the needs of the service areas unnecessarily disrupts patient care. Furthermore, there is no evidence that this would increase the use rates of the existing providers, since the operators have different skills and interests, the equipment has different capabilities, the pricing and insurance contracts have different provisions, and the location and convenience of the facilities is not comparable.

In addition to inconveniencing patient and referring physicians, closing IAP would impose a hardship on IAP employees. Most left good, stable jobs and some have relocated to the State based on the assurance that this was stable business. Since similar jobs are scarce, many would be forced to go Outside for employment.

THEREFORE, ALTERNATIVE #4 IS NOT ACCEPTABLE.
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Alternative 5: Build two new outpatient facilities.

This alternative is the most effective way to increase access to the services of IAP physicians in a cost-effective, high quality manner.

THEREFORE, THIS ALTERNATIVE WAS THE MOST APPROPRIATE FOR THIS PROJECT.

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C2. Describe any special needs and circumstances. Special needs may include special training, research, Health Maintenance Organizations (HMOs), managed care, access issues, or other needs.

1. The two IAP facilities address an unmet need for additional capacity accessible by IAP radiologists.

Unlike most physicians, Radiologists (along with Pathologists and Anesthesiologists) are usually under an exclusive contract to one provider, and are thus contractually ineligible for privileges at other facilities. This is the case with every IAP physician.

Even if there is unscheduled capacity available at other providers, it cannot be accessed by the patients of IAP physicians without requiring them to change radiologists. The exclusive contract that IAP physicians have with PAMC precludes them from applying for privileges at other providers, while other hospital providers, like Mat-Su Regional or Alaska Regional Medical Center in Anchorage, are also bound by contract with their radiologists that preclude them from accepting applications from IAP physicians.

Therefore, since the MR & CT units that IAP physicians can use to treat their patients are fully utilized (i.e., those at PAMC in Anchorage and the Providence Imaging Center in Anchorage), IAP physicians must either obtain 1) more capacity that they can use, or 2) require that their patients change radiologists in order to access the service at another facility.

The second alternative is unnecessarily coercive and contrary to the valuable health system goals of maintaining continuity of care and increasing patient choice where possible. Therefore, this project addresses an unmet need for additional capacity accessible by the patients of IAP physicians.

Since all Providence Alaska Medical Center facilities are fully utilized for both CT and MRI imaging, this project addresses an unmet need for additional capacity accessible by the patients of IAP physicians.

- Closing the Mat-Su facility would limit patient choice by requiring that patients either 1) switch their care to a radiologist affiliated with Mat-Su Regional Hospital or 2) travel to Anchorage in order to maintain the integrity of their care team on the other. Neither option serves patients, who require ready and convenient access to care close to home at the existing IAP Mat-Su facility.
- In Anchorage, there is also an unmet need for capacity. The existing PAMC units are fully utilized. As more patients seek the care of IAP physicians, patients need additional capacity to meet their needs. The participation of PAMC as an IAP partner demonstrates the fact that current PAMC imaging facilities are fully utilized and that additional capacity is needed to serve the patients of IAP physicians.

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2. The two proposed facilities address an unmet need for additional low-cost capacity.

- Closing the Mat-Su facility would limit patient choice by requiring that patients travel to Anchorage in order to obtain the same low rates currently available to them at the IAP Mat-Su facility. In addition, as noted above, the PAMC facilities are currently fully utilized.
- In Anchorage, there is also an unmet need for capacity. In order to access the high-quality and low rates available at PAMC facilities, patients need additional capacity to meet their needs. PAMC seeks to expand their capacity by partnering with IAP physicians to provide the additional services needed.

D. THE RELATIONSHIP OF THE PROPOSED PROJECT TO EXISTING HEALTH CARE SYSTEM AND TO ANCILLARY OR SUPPORT SERVICES

1. **Identify any existing comparable services within the service area and describe any significant differences in population served or service delivery. If there are no existing comparable services in the area, describe the unmet need and how the target population currently accesses the services. Describe significant factors affecting utilization, including cost, accessibility, and acceptability.**

- CT SERVICES

There are several providers diagnostic CT in the service areas, which we believe are distinct from IAP. Each will be profiled.

CT Anchorage

Alaska Native Medical Center operates a 16-Slice GE Light Speed Pro. This service is designed to meet the needs of the Alaska Native population and is virtually inaccessible by others. It cannot meet the needs addressed by the IAP project. Privileging constraints also make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Alaska Open Imaging operates a 16-Slice Toshiba unit. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Alaska Regional has a Single-Slice Siemens Balance unit, which addresses a limited subset of CT needs, as well as a 4-Slice Siemens Volume Zoom unit that is currently being fully utilized. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Elmendorf AFB operates a GE Light Speed and a Siemens Somatom unit. Their CT service is designed to meet the needs of the Air Force Base population and is virtually inaccessible by others. It cannot meet the CT needs addressed by the IAP project. In addition, privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

HealthSouth operates an 8-Slice GE Light Speed. It is at, or near target utilization, and privileging constraints make it inaccessible

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to IAP physicians and their patients (unless they change their radiology provider).

Providence Alaska Medical Center operates several CT units (a 16-Slice GE Light Speed, and a 64-Slice GE). Each is well above target utilization. Although available for use by IAP radiologists and their patients, they are not capable of meeting the current and projected demand by IAP patients for CT scans.

The Providence Imaging Center operates a 16-Slice GE Light Speed Pro unit that is above target utilization (an 8-Slice GE DISCOVERY unit is no longer in operation). Although available for use by IAP radiologists and their patients, it is not capable of meeting the current and projected demand by IAP patients for CT scans.

CT Mat-Su

Mat-Su Regional Hospital operates three CT scanners (two 4-Slice Siemens Somatom units and a new 64-Slice GE VCT unit).

Although not operating at capacity, they cannot meet the needs addressed by the IAP project since privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Alaska Open Imaging - Wasilla operates a 4-Slice Toshiba unit. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

- MRI SERVICES

There are several other providers of superficially similar services in the service areas. Each will be profiled.

MRI Anchorage

Alaska Native Medical Center operates a 1.5T GE Signa unit. Their MRI service is designed to meet the needs of the Alaska Native population and is virtually inaccessible by others. It cannot meet the MRI needs addressed by the IAP project. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Elmendorf AFB also operates a 1.5T GE Signa unit. Their MRI service is designed to meet the needs of the Air Force Base population and is virtually inaccessible by others. It cannot meet the MRI needs addressed by the IAP project as it is inaccessible to IAP physicians.

Alaska Innovative Imaging operates 0.2T Siemens Magnetom Jazz. It is a low-field magnet with limited application to the services IAP provides. It cannot meet the MRI needs addressed by the IAP project. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Alaska Open Imaging operates a 0.3T Hitachi Open Unit. It is a low-field magnet with some application for claustrophobic patients, but

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fails to provide the image quality of the 3.0T magnet available at the IAP Abbott Road site, and is inferior to the Open Bore magnet available at the IAP Mat-Su location for reasons discussed at greater length above. It cannot meet the needs addressed by the IAP project. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Alaska Regional Hospital operates 1.5T GE Horizon LXi Short-bore unit. It is at or above target utilization. It cannot meet the needs addressed by the IAP project. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

The Alaska Spine Institute operates a 1.5T GE Signa Infinity w/excite unit. It cannot meet the needs addressed by the IAP project. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

ANC Fracture & Ortho Clinic operates a 0.2T GE/Lunar E-scan Open Unit. It is a low-field magnet with specific design features that render it unsuitable for most IAP patients. In any case, privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

HealthSouth operates a GEHT 1.5T Signa Excite HD MR System with CXK4 Magnet. It is at or above target utilization. It cannot meet the needs addressed by the IAP project. Privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Providence Alaska Medical Center operates a 1.5T Siemens MRI unit. Although available for use by IAP radiologists and their patients, it is designed to meet the needs of PAMC patients not otherwise suitable for the PIC. As such, it is not capable of meeting the current and projected demand by IAP patients for MRI scans.

The Providence Imaging Center operates two MRI units, a 1.5T GE Signa unit and a 1.5T GE Signa Twin. Both are at or above target utilization. A 0.35T Toshiba Opact Open MR is no longer in operation. Although available for use by IAP radiologists and their patients, it is not capable of meeting the current and projected demand by IAP patients for CT scans.

Mat-Su

Mat-Su Regional Hospital operates two MRI units, a 1.0T Phillips Gyroscan Intera unit and a 1.5T GE Excite unit. Although not operating at capacity, they cannot meet the MRI needs addressed by the IAP project since privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

Alaska Open Imaging - Wasilla operates a 0.35T Toshiba Open Unit. It is a low-field magnet primarily designed for claustrophobic

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patients, but is inferior to the Open Bore magnet available at the IAP Mat-Su location for reasons discussed at greater length above. It cannot meet the more general MRI needs addressed by the IAP project. In any case, privileging constraints make it inaccessible to IAP physicians and their patients (unless they change their radiology provider).

The proposed project is more easily accessed than hospital alternatives due to shorter wait times, less complexity with parking and registration, and the difference in size of the facilities. Simply finding the radiology area at a major hospital like Mat-Su Regional can, at times, be a confusing and time-consuming process. The IAP facilities are small, convenient, and easier to use than area alternatives.

Patients tend to prefer outpatient imaging facilities. IAP facilities offer the safety of a hospital setting while being less-costly, equally accessible, and more efficient.

D.2. Describe the probable effect on other community resources, including any anticipated impact on existing facilities offering the same/similar services or alternatives locally or statewide if applicable. Describe how each proposed new or expanded service will a) complement existing services; b) provide an alternative or unique service c) provide a service for a specific target population d) provide needed competition

- a) The proposed project complements existing services, providing alternative services in some cases, and unique ones in others. The Mat-Su facility will provide needed competition.

The proposed project complements existing services by reducing the burden outpatient procedures impose on hospital imaging facilities designed to meet the needs of inpatients, outpatient and emergency patients. It will allow hospitals in the service area to use their capacity for emergencies and high-intensity acute inpatient care during high need cycles, while not forcing outpatient needs to wait.

It complements existing services by providing unique MR services and increased access to enhanced technology.

Since inpatient and emergent procedures receive priority in a combination radiology suite arrangement, outpatients have been forced to wait for openings. The proposed facility reduces such deficiencies while allowing the hospital to be more efficient during times of high inpatient demand.

It has also brought well-trained physicians and staff to the service area, and created jobs.

- b) The project provides a unique service.

It provides the only low-dose CT, Short Bore MRI, and digital mammography services in a dedicated outpatient facility in the Mat-Su Valley.

Hospitals must give high-acuity acute inpatients priority; this can mean "squeezing in" outpatient services as available. Because IAP specializes in a small number of common procedures and doesn't alternate inpatient and outpatient services, this

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project provides a more efficient service to the population of the Anchorage and Mat-Su service areas.

Diagnostic services provided are: standard medical x-ray, magnetic resonance imaging (MRI), ultrasound, computed tomography (CT scan), and Dexa scan (bone mineral/density scan), Galactography, NMR spectroscopy, Digital Mammography and a variety of ultrasound-guided procedures, including core needle biopsy (of any superficial location), fine needle aspiration of the thyroid gland.

Therapeutic procedures established include: endovenous ablation of varicose veins, chemical sclerotherapy of varicose veins, and a variety of ultrasound-guided procedures, including abscess drainage, cyst aspiration, paracentesis, and thoracocentesis.

The dosimetry program used at IAP provides the lowest possible exposure to ionizing radiation and represents a real advantage to patients, particularly those with diseases or treatments that require frequent or recurrent CT scans for the purposes of monitoring the progress of treatment, such as oncology patients.

There are currently no other dedicated outpatient providers of endovenous laser ablation or sclerotherapy in the Mat-Su Valley.

Without this project, patients from the Mat-Su Valley would be forced to travel to Anchorage to access the services of IAP physicians.

- c) This project is not designed to meet the needs of a specific patient population.
- d) This project provides needed competition.

It results in more Alaskans being able to obtain appropriate, low-cost medical services. IAP dedicated-outpatient facilities increase patient access and care efficiency, while allowing hospitals to concentrate on important inpatient and emergency services, thus increasing the efficiency in the area as well.

The proposed project provides higher levels of service and quality at lower cost than existing facilities. It will not have an effect on other area providers since it is based on population growth, an increasing demand for the services provided, and addresses the demand for access to the specialized professional expertise of IAP professionals.

- D.3. Identify existing working relationships the applicant has with hospitals, nursing homes, and other resources serving the target population in the service area. Include a discussion of cooperative planning activities, shared services (i.e., agreements assigning services such as emergency or obstetrics), and patient transfer agreements. If other organizations provide ancillary or support services to your facility, describe the relationship. Attach copies of relevant agreements in an appendix in the application. If a service requires support from another agency but does not have an agreement, explain why.**

The proposed project operates independently at two sites to serve the outpatient needs of the patients referred by healthcare providers.

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IAP works closely with referring physicians; to streamline care, a compact disk (CD) containing images from a patient's study is provided at the request of the referring physician. PACS, the picture archiving and communications system, will allow for rapid access to computerized images, which radiologists and clinicians can access from multiple locations.

E. FINANCIAL FEASIBILITY

1. **Demonstrate how the project will ensure financial feasibility, including long-term viability, and what the financial effect will be on consumers and the state, region, or community served.**
2. **Discuss how the project construction and operation is expected to be financed. Demonstrate access to sufficient financial resources and the financial stability to build and operate this project.**

Provide a description and estimate of:

- a. the probable impact of the proposal on the annual increase on the overall costs of the health services to the target population to be served;
 - b. If applying to build a residential psychiatric treatment centers, nursing homes, or additional nursing home beds the annual increase to Medicaid required to support the new project, and the projected cost of and charges for providing the health care services in the first year of operation (per diem rate, scan, surgery etc);
 - c. the immediate and long-term financial feasibility of continuing operations of the proposal.
1. The proposed project has been in operation for eighteen months and is breaking even. It will provide adequate capacity to serve patients needing a variety of outpatient radiology services. This expansion of IAP physician services will reduce the IAP waiting list. The project will not increase charges to patients, and no financial effect has been identified that would burden patients, the state or the community.
 2. The project has been financed with a combination of equity and debt.
 - 2a. No increase in costs of health care are anticipated.
 - 2b. Not applicable to this project.
 - 2c. The proposed project will not have any negative impact on the overall financial condition of members of IAP nor its ability to continue operations.

F. ACCESS TO SERVICE BY THE GENERAL POPULATION AND UNDER-SERVED GROUPS

1. **Provide information on service needs and access of under-served groups of people such as low-income persons, racial and ethnic minorities, women, and persons with a disability. Discuss any plans to overcome language and cultural barriers of groups to be served.**

IAP policies and protocol address the provision of services and care to medically underserved persons. IAP maintains an open door philosophy consistent with the values of the Sisters of Providence and their mission to provide quality health care to all individuals regardless of their race, creed or ability to pay.

In the target service areas, as well as in many communities in Alaska, the population is increasing in size and average age. The need for comprehensive and accessible health care services is critical for older populations. This project improves the delivery of a range of radiology services to these diverse groups.

- F.2. **Indicate the annual amount of charity care provided in each of the last five years with projections for the next three years. Include columns for revenue deductions, contractual allowances, and charity care.**

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IAP provides charity care to eligible patients based on income level and family size compared to national poverty guidelines. Table IV.F.2 shows the amount of charity care provided by IAP for the past 18 months and the projections of charity care for the next five years.

Table IV.F.2

Amount of Charity Care Provided, Inception and projected through 2010

Year	CHARITY CARE
2007	\$12,979
2008	\$18,565
2009	\$25,698
2010	\$32,509

F.3. Address the following access issues: a) transportation and travel time to the facility; b) special architectural provisions for the aged and persons with a disability; c) hours of operation; and d) the institution's policies for nondiscrimination in patient services.

a) Transportation and travel time to the facility

The IAP Abbott Road facility is located on the south edge of Anchorage. The site is easily reached and within a half hour's drive of the International Airport. The facility can be accessed by private vehicles, public transportation (only available in certain areas), and IAP transport (where allowed by law). The majority of the service area population resides and/or works within 45 minutes of the facility.

The IAP Mat-Su facility is located equidistant between Palmer and Wasilla with convenient access off the Parks Highway. Transportation to the facility can be provided by private vehicles and IAP transport (where allowed by law). The majority of the service area population resides and/or works within 30 minutes of the facility.

b) Special architectural provisions for the handicapped and aged

The proposed project accommodates handicapped and elderly persons and complies with standards set forth in the Americans with Disabilities Act.

c) Service hours of operation

This project offers extended and flexible scheduled hours and walk-in appointments are welcome at both new facilities for patients with a prescription for a standard medical x-ray study. Patient schedules are open from 6 AM to 6 PM, Monday through Friday. IAP has also accommodated several patients off-hours.

d) Institutional policies for non-discrimination in patient services

IAP maintains an open door philosophy consistent with the values of the Sisters of Providence and their mission to provide quality

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health care to all individuals regardless of their race, creed or ability to pay. IAP's policy regarding patient's rights to services includes the following three relevant points:

1. IAP does not discriminate against a patient because of race, creed, color, national origin, or because a patient is covered by a program such as Medicaid or Medicare.
2. Although unlikely to arise, under no circumstances will treatment be delayed or denied in a life-threatening situation due to a payment source, lack of insurance or ability to pay.
3. IAP will not deny services to any person who needs services but cannot pay for them.

Section V

Consideration of Quality, Effectiveness, Efficiency, and Benefits of the Applicant's Services

1. ACCREDITATION AND LICENSURE:

The current status, source, date, length, etc., of the applicant's license and certification. Include information on Medicaid and Medicare Certification.

All facilities providing mammography must be certified by the FDA under the MQSA. To be certified, a facility must be accredited. IAP facilities are accredited by ACR as a result of the survey completed by the Committee on Mammography Accreditation of the Commission on Quality and Safety.

Facilities seeking ACR accreditation in other modalities do so voluntarily, for a variety of reasons: peer review, educationally-focused evaluation of practice, continuing education or qualified personnel, outside expert assessment of image quality. The FDA has designated the ACR as an accrediting body.

IAP is considering ACR accreditation, contingent on the determination made of this application.

- The American College of Radiology (ACR) has developed several service-specific accreditation programs in order to educate and to enhance the quality of clinical images and patient care.
- Four areas of a facility are evaluated including: personnel qualifications, equipment performance, effectiveness of quality control measures, and quality of clinical images.
- When a facility passes ACR accreditation, the site is awarded a three-year certification. In addition, the facility receives a final report listing accomplishments, areas of improvement, and recommendations about the service performance.

2. QUALITY CONTROL

How the applicant plans to ensure high quality service

The quality control program at IAP includes the following elements:

- Equipment - all equipment meets quality and safety standards required of all manufactures by the federal government. Preventative maintenance is performed on equipment, and consists of a thorough inspection for any defects that may affect patient care or safety. IAP has purchased the Siemens platinum level service contracts for all MRI and CT equipment. These contracts guarantee that covered equipment will be operational 98% of the patient service time.
- Physicians - Each IAP physician's education, training and skills are evaluated through a credentialing process, and only qualified physicians are accepted. Physician members of IAP stay current with new developments in their respective radiology areas of specialization through training and continuing education.

Section V

Consideration of Quality, Effectiveness, Efficiency, and Benefits of the Applicant's Services

- Clinical and Non-Clinical Personnel- All IAP personnel must meet professionally accepted job requirements.
- Continuing Education - IAP provides continuing education training and ensures that all personnel receive training provided by equipment vendors, professional societies and attend selected special educational meetings both in and out of state.
- The objectives of the IAP Quality Improvement Program include:
 - Provide optimal patient care within available resources
 - Manage resources in the most appropriate manner
 - Minimize risk and injury
 - Identify and act upon opportunities to improve patient care

3. PERSONNEL:

Plans for optimum utilization and appropriate ratios of professional, sub-professional and ancillary personnel.

Effective and cost-efficient utilization of staff is reviewed on a daily, monthly and annual basis. The concept of a multi-level and cross-trained staff has been operational at IAP since its inception.

4. APPROPRIATE UTILIZATION:

Development of programs such as ambulatory care, assisted living, home health services, and preventive health care that will eliminate or reduce inappropriate use of inpatient services

Not applicable to this project, which offers outpatient services only.

5. NEW TECHNOLOGY AND TREATMENT MODES:

Plans to use modern diagnostic and treatment devices to enhance the accuracy and reliability of diagnostic and treatment procedures.

Modern diagnostic and treatment devices are very important to the operation of IAP facilities. The proposed project facilitates access to expensive equipment in a convenient outpatient setting. The PACS system brings images and reports to the referring physician's office.

PACS, the picture archiving and communications system, will allow for rapid access to computerized images, which radiologists and clinicians can access from multiple locations.

Integration with Providence Alaska Medical Center electronic medical records improves accurate documentation, which in turn improves the quality of care.

Section V

Consideration of Quality, Effectiveness, Efficiency, and Benefits of the Applicant's Services

6. LABOR SAVING DEVICES AND EFFICIENCY:

The employment of labor-saving equipment and programs to provide operating economies.

The proposed project facilitates the sharing of highly trained staff. The project design decreases the amount of time it takes to for staff to move from one treatment area to another.

For example, the shared control room for CT and MRI maximizes attention to patients and dramatically decreases response time for either modality, if necessary. It also provides a convenient setting for the on-site radiologist to supervise two modalities simultaneously, and increases patient convenience as well.

7. PROGRAM EVALUATION:

Future plans for evaluation of the proposed activity to ensure that it fulfills present expectations and benefits.

The proposed project will provide two target service areas with high quality, safe, medically appropriate, and cost-effective outpatient radiology services.

Since its inception, IAP has had a quality management program in place with a manager directly responsible for the coordination of these activities in each facility. The primary objective of the program is to assure the provision of high quality appropriate patient care; the program also helps appropriately manage the resources and minimize risk to patients, physicians and employees.

Quality Assurance is an integral part of the delivery of IAP services. Each site manager is responsible for monitoring their facility's service and safety criteria. IAP management reviews budgets, volumes, staffing, productivity, and quality indicators monthly, quarterly and annually. Staffing is adjusted daily to fit the patient schedule and expected patient flow.

In addition, on-going patient surveys and focus groups assist in identifying if and how patient needs are being met.

The specific objectives of the IAP performance improvement program are met through a process of identifying problems, establishing criteria, monitoring activities against criteria and confirming the existence and magnitude of problems. With this information, various plans of action are developed, after which continued monitoring takes place to assure that problems have been rectified.

IAP also uses a "Balanced Scorecard" to ensure that all facets of operations (Financial, Customer, Internal Business Processes, Learning and Growth) have specific targets that lead toward excellence. This scorecard is monitored monthly and scrutinized by the IAP Board of Directors.

Section V
Consideration of Quality, Effectiveness, Efficiency, and Benefits of the Applicant's Services

8. ORGANIZATIONAL STRUCTURE:

Include an organizational chart, descriptions of major position requirements and board representation; show representation from community economic and ethnic groups.

The proposed project establishes new physician office-based imaging services in two locations. These facilities are operated, in space owned by Providence Alaska Medical Center.

IAP employs a team of highly trained technologists and professional clerical staff dedicated to providing patients with high quality imaging exams in a caring, comfortable and convenient environment. Professional radiology services are rendered through a professional services agreement with Alaska Radiology Associates (ARA), a group of nine board-certified radiologists.

The Chief Executive Officer IAP is Mark Ackley, MBA; reporting to him are the following:

- Administration: Executive Assistant
- Operations: Clinical Manager
- Sales:
 - Customer Relations Manager, Anchorage
 - Customer Relations Manager, Mat Su Valley

IAP has an additional position open (Director of Sales) that cannot be filled until the present uncertainty regarding the status of IAP's facilities is resolved.

Mr. Ackley reports to the Medical Director of IAP, and the Board of Directors of IAP, LLC. Please see Appendix D for an organizational chart of IAP.

IAP is managed by Alaska Radiology Associates under the terms of a Management Services Agreement.

A detailed listing of the members of the board of IAP can be found in Section I, Part 2.

9. STAFF SKILLS:

Provide descriptions of major position requirements, appropriate staff-to-patient ratios to maintain quality, and the minimal level of utilization that must be maintained to ensure that staff skills are maintained. Provide a source for the staffing standards.

The CV of the CEO is located in Appendix E.

Copies of the following job descriptions are located in Appendix E:

- CT Rad Tech
- MR Rad Tech
- X-ray Tech
- Mammography Tech

The State of Alaska does not currently require medical imaging staff to hold state licensure. Registry with The American Registry of Radiologic Technologists (ARRT) is sufficient to be eligible to

Section V

Consideration of Quality, Effectiveness, Efficiency, and Benefits of the Applicant's Services

practice. For sonographers, registration with the American Registry of Diagnostic Medical Sonographers (ARDMS) is sufficient.

All IAP technical imaging staff members are currently registered with the ARRT or ARDMS as required. In addition, all members MRI technical staff members are registered with the American Registry of Magnetic Resonance Imaging Technologists (ARMRIT).

IAP radiologic technologist staffing levels are sufficient to always provide at least one technologist per procedure room to perform imaging functions as well as functions related to inventory, cleanup, room preparation, film or digital image processing, and data entry into inventory management or quality assurance computer programs.

To achieve consistent coverage, this requires greater than one full-time equivalent staff member per procedure room to cover vacations, sick time, and educational leave and can vary from 1.2 to approximately 1.8 full-time equivalents per staff position.

10. ECONOMIES OF SCALE:

The minimum and maximum size of facility or unit required to ensure optimum efficiency. If the planned project is significantly smaller or larger, explain the effect and why the size was chosen.

The number of treatment spaces needed to adequately serve the projected demand determined the size and configuration of the two IAP facilities. The physical design of the facilities supports efficiency and flexibility; their configuration allows for enhanced operational workflow and streamlined patient movement.

The facility design contributes to efficient and flexible use of staff and space, lowers unit-operating costs, decreases the time required between patients and increases the number of patients that could be treated within a given period of time. These benefits are not possible in smaller or less comprehensive programs.

SECTION VI
Narrative Description of How Project Meets Applicable Review Standards

Describe in this section of the application how the proposed project meets each review standard applicable to all activities, and each specific review standard applicable to the proposed activity.

Some of this information will duplicate information required elsewhere in the application packet; that duplication is intentional.

GENERAL REVIEW STANDARDS

General Review Standards Applicable to all Certificate of Need Applications

1. *The applicant documents need for the project by the population served, or to be served, including, but not limited to, the needs of rural populations in areas having distinct or unique geographic, socioeconomic, cultural, transportation, and other barriers to care.*

Please see the responses in Sections IV.B.1-6 above.

2. *The applicant demonstrates that the project, including the applicant's long-range development plans, augments and integrates with relevant community, regional, state, and federal health planning, and incorporates or reflects evidence-based planning and service delivery. A demonstration under this standard should show that the applicant has checked with the department regarding any relevant state plan, with appropriate federal agencies for relevant federal plans, and with appropriate communities regarding community or regional plans.*

Please see the response in Section IV.A above.

3. *The applicant demonstrates evidence of stakeholder participation in planning for the project and in the design and execution of services.*

Physicians have participated in the planning of the design of the facility. Several local patients reviewed the proposed facility schematics. As evidenced by the attached letters of support, there is considerable support for the facilities as designed, built and operated. In addition, the project architect has formally included patients and family members in the planning process for other similar projects and applied this knowledge and experience to the facility design and configuration of the IAP facilities.

4. *The applicant demonstrates that they have assessed alternative methods of providing the proposed services and demonstrates that the proposed services are the most suitable approach.*

Please see the response in Section IV.C above.

5. *The applicant briefly describes the anticipated impact on existing health care systems within the project's service area that serve the target population in the service area, and the anticipated impact on the statewide health care system.*

Please see the response in Section IV.B.5 above.

6. *The applicant demonstrates that the project's location is accessible to patients and clients, their immediate and extended families and community members, and to ancillary services. This includes the relocation of existing services or facilities.*

Please see the response in Section IV.F above.

SECTION VI
Narrative Description of How Project Meets Applicable Review Standards

SERVICE SPECIFIC REVIEW STANDARDS

Magnetic Resonance Imaging

Table VI.1 below has been prepared with reference to Alaska Certificate of Need Review Standards and Methodologies Section VII.A. Diagnostic Imaging Services, Review Standards and Methodology, Magnetic Resonance Imaging as adopted December 9, 2005.

Table VI.1 Magnetic Resonance Imaging Service Review Standards

MAGNETIC RESONANCE IMAGING REVIEW STANDARDS	COMMENTS
1. Except as provided in Review Standard 2, an applicant who seeks to establish an MRI service demonstrates the ability to provide a minimum of 3,000 MRI scans per year by the end of the third operational year, dating from the initiation of the service.	Utilization is expected to surpass 3000 MRI scans per year by the end of third year for the Mat-Su facility and by the fourth year in Anchorage after program implementation (both facilities were established in June 2006). Please see Figures IV.B.5.1 and IV.B.5.2 for detail.
2. An applicant who seeks to establish an MRI service in a community with a population of 10,000 or less demonstrates the ability to provide a minimum of 1,000 MRI scans per year by the end of the third year, dating from the initiation of the service. (Based on the estimate of a minimum of 2,500 scans/70,000 people, it is estimated that the minimum service area population for an MRI service to provide a minimum of 1,000 MRI scans per year would be 28,000 people).	Not applicable. This project seeks to establish a new MRI service in a community with a population greater than 10,000.
3. No MRI service will be approved at a location that is less than 30 minutes access time of an existing MRI service performing fewer than 3,000 scans per year, or of a CON-approved, but not yet operational, MRI service.	<p>We request a waiver of this standard, since it is inapplicable where contractual obligations prevent the physicians of one facility from accessing the equipment at another that may perhaps have excess capacity.</p> <p>IAP physicians are precluded by contract from applying for privileges at other area facilities, and can only see their patients at Providence Alaska Medical Center facilities, of which there are currently two (not counting the proposed project). All MR units at both of these facilities are over the threshold (see Table IV.B.5.c).</p>

SECTION VI
Narrative Description of How Project Meets Applicable Review Standards

SERVICE SPECIFIC REVIEW STANDARDS

C. Computed Tomography

Table VI.2 below has been prepared with reference to Alaska Certificate of Need Review Standards and Methodologies Section VII.C. Diagnostic Imaging Services, Review Standards and Methodology, CT Scanning as adopted December 9, 2005.

Table VI.2 CT Service Review Standards

CT SCANNING REVIEW STANDARDS	COMMENTS
1. An applicant who seeks to establish a new CT service in an urban area (population of 70,000 or more) demonstrates the ability to provide a minimum of 3,000 CT scans per year by the end of the third operational year, dating from the initiation of the service.	Utilization is expected to surpass 3000 CT scans per year by the end of third year after program implementation, which began in June 2006. Please see Figures IV.B.5.1. and IV.B.5.2 for detail.
2. An applicant who seeks to establish a new CT service in a rural area demonstrates the ability to provide a minimum of 1,000 CT scans per year by the end of the third operational year, dating from the initiation of the service.)	Not applicable. This project seeks to establish a new CT service in a community with a population greater than 10,000.
3. No new CT service will be approved in a service area or at a location that is less than 30 minutes travel time of an existing CT service performing fewer than 3,000 scans per year, or of a CON-approved but not yet operational, CT service.	We request a waiver of this standard, since it is inapplicable where contractual obligations prevent the physicians of one facility from accessing the equipment at another that may perhaps have excess capacity. IAP physicians are precluded by contract from applying for privileges at other area facilities, and can only see their patients at Providence Alaska Medical Center facilities of which there are currently two (not counting the proposed project). All CT units at both of these facilities are over the threshold (see Table IV.B.5.c).
4. An applicant who seeks to expand an existing CT service must demonstrate an average service volume of at least 4,000 CT scans annually for each existing CT scanner at the service site.	Not applicable. This project seeks to establish a new CT service.

Section VII.
Construction Data

A. Please check appropriate boxes:

- | | | | |
|----------------------|-------------------------------|------------------------------------|-------------------------------------|
| 1. Construction type | <input type="checkbox"/> New | <input type="checkbox"/> Expansion | <input type="checkbox"/> Renovation |
| 2. Basement | <input type="checkbox"/> Full | <input type="checkbox"/> Partial | <input type="checkbox"/> None |

Not applicable to this project as the space is leased.

B. Project Development Schedule

Date

1. Estimated completion of final drawings and specifications

n/a

2. Estimated construction begun specifications by

n/a

3. Estimated construction complete by

n/a

4. Estimated opening of proposed services

n/a

C. Facility site data: Provide the following as attachments (referenced by the subsection and item number):

- 1. A legal description and area of the proposed site. Is the site now owned by the facility? If not, how secure are the arrangements to acquire the site?**

The site is owned by Providence Alaska Medical Center; IAP leases the space.

2. Diagrammatic plan showing:

- a. dimensions and location of structures, easements, rights-of-way or encroachments;
- b. location of all utility services available to the site; and
- c. location of service roads, parking facilities, and walkways within site boundaries.

Not applicable to this project.

- 3. Document clearances regarding zone restrictions, fire protection, sewage, and other waste disposal arrangements (under special circumstances, it is acceptable to present evidence of conditional approvals from local government and regulatory agencies).**

Not applicable to this project.

- 4. An architectural master plan including long-range concept and development of total facility.**

Not applicable to this project.

- 5. Schematic floor plan drawings (or conceptual drawings) of proposed activity, including functional use of various rooms.**

Please refer to Appendix B for schematic floor drawings.

D. Describe the plan for completing construction and the effect (disruption) construction activities will have on existing services.

Not applicable to this project.

Section VIII.A.
Financial Data - Acquisitions

1. Acquisition type: (Please check applicable boxes)

☒ **Lease** ☐ **Rent** ☐ **Donation** ☐ **Purchase** ☐ **Stock Transaction**

2. Cost data

(Omit cents)

a. Total acquisition cost*	\$ <u>2,443,520</u>
b. Amount to be financed	\$ <u>0</u>
c. Difference between items (a) and (b) (list available resources to be used, e.g. available cash, investments, grants, etc.)	\$ <u>0</u>
d. Anticipated interest rate ____%, term ____ years.	\$ <u>0</u>
e. Total anticipated interest amount	\$ <u>0</u>
f. Total of (a) and (e)	\$ <u>0</u>
g. Estimated annual debt service requirements	\$ <u>0</u>

Discussion:

The project has already been constructed and is in operation. Therefore, the site acquisition cost above is not an estimate, but the actual expenditure to construct the medical office buildings in question. IAP leases the site from the owner, Providence Alaska Medical Center. However, since actual construction cost is available, it is set forth above on line 2a.

3. Describe how you expect to finance the project.

This project has already been constructed. Financing was obtained from GE Financing, Milwaukee, Wisconsin.

Note: Acquisition costs must include (as appropriate):

- Total purchase price of land and improvements (if donated, the fair market value**)
- "Goodwill" or "purchase of business" costs
- The net present value of the lease calculated on the total lease payments over the useful life of the asset as set out in the 2004 version of *Estimated Useful Lives of Depreciable Hospital Assets*, published by the American Hospital Association.
- Consultant or brokers fees paid by person acquiring the facility
- Other pre-development costs to date.

* Site acquisition should be stated as "book" value, i.e. actual purchase price plus costs of development. If desired, the applicant may elect to state the acquisition as "fair market value"*** (in which case, give reason and basis).

** A form for use in calculating fair market value is included on page 31 of this packet. Include your calculations as part of this section of your application.

Section VIII.B.
Financial Data – Construction Only

1. Construction Method (Please check)

1. ☐ Conventional bid ☐ Contract management ☐ Design and build
2. ☐ Phased ☐ Single project ☐ Fast Track

Not applicable to this project as the space is leased.

The project has already been constructed and is in operation. Therefore, the costs below are not estimates, but actual expenditures. While the site is leased, the actual construction has been provided on line 2a.

2. Construction Cost (New Activity)

(Omit cents)

a. Site acquisition (Section VIIIA.2.f.)	\$ 2,443,520
b. Estimated general construction**	\$
c. Fixed equipment, not included in a**	\$
d. Total construction costs (sum of items a, b, and c)**	\$ 2,443,520
e. Major movable equipment**	\$ 8,181,432
f. Other Cost	
(1) Administration expense	\$
(2) Site survey, soils investigation and materials testing	\$
(3) Architects and engineering fees	\$
(4) Other consultation fees (preparation of application included)	\$
(5) Legal Fees	\$
(6) Land development and landscaping	\$
(7) Building permits and utility assessments (including water, sewer, electrical, phones, etc.)	\$
(8) Additional inspection fees (clerk of the works)	\$
(9) Insurance (required during construction period)	\$
g. Total project cost (sum of items d, e, f)	\$ 10,624,952
h. Amount to be financed	\$ 8,276,304
i. Difference between 2.g and 2.h (list, as Schedule I, available resources to be used, e.g., available cash, investments, grants, funds, community contributions, etc.)	\$ 2,348,648
j. Anticipated long-term interest rate <u>6.75</u> %	
k. Anticipated interim (construction) interest rate <u>n/a</u> %	
l. Anticipated long-term interest amount	\$ 2,128,202
m. Anticipated interim interest amount	\$ 0
n. Total items g, l, and m	\$ 12,753,154
o. Estimated annual debt service requirement	\$ 2,601,127
p. Construction cost per sq. ft.	\$ 221
q. Construction cost per bed	\$
r. Project cost per sq. ft.	\$ 1,154
s. Project cost per bed (if applicable)	\$

Note: Items B-1 through B-6 are to be certified estimates (where appropriate)

* Site acquisition should be stated as "book" value, i.e., actual purchase price (or estimate of value if donated) plus costs of development. If desired, the applicant may elect to state as "fair market value" (in which case, so indicate). A form for use in calculating fair market value is included on page 31 of this packet. Include your calculations as part of this section of your application.

** Items must be certified estimates from an architect or other professional. Major medical equipment may be documented by bid quotes from suppliers.

Section IX.
Financial Data – All Proposed Activities

Provide an accompanying narrative explanation for each of the schedules below if there are any significant trends or significant changes in any item or group of items from year to year.

Note: Indicate whether you are using a calendar year or other fiscal year period.

A. Attach Schedule I - Facility Income Statement

1. For the most recent five prior full fiscal or calendar years
2. Projections during construction or implementation period (if applicable)
3. Projection for three years following completion of construction, or implementation of the proposed activity.

B. Attach Schedule II - Facility Balance Sheet

1. For the most recent five prior fiscal or calendar years.
2. Current fiscal or calendar year to date

C. Attach Schedule III - Average Patient Cost Per Day (Per Diem Rate if applicable) and Revenue Amounts

Provide revenue and expense data FOR EACH SERVICE that is identified as changing.

1. For the most recent five prior full fiscal or calendar years (information may be obtained on total patient load, directly from your respective years' Medicare Cost Reports)
2. Current fiscal or calendar year to date
3. Projection for five years following completion of construction or implementation.

D. Attach Schedule IV – Operating Budget

Current and projected line item capital and operating budgets for the proposed activity. Describe what alternative plans have been made if deficits occur.

E. Attach Schedule V – A. Debt Service Summary, and B. New Project Debt Service Summary

A debt service cash flow schedule over the life of the debt, if applicable, for all long-term debt of the facility. Identify each debt, including the proposed activity, and break out interest, principal, and other costs.

F. Attach Schedule VI - Reimbursement Sources

Showing reimbursement sources for the facility for the previous five full years and projected for three years after implementation.

G. Attach Schedule VII – Depreciation Schedule

Showing a depreciation schedule for all items acquired through the proposed project. Note that the straight-line method must be used. Indicate on the depreciation schedule or separately which major movable equipment is being purchased for the project (see Section VIIIB, Item 2e). Also, on a separate page, include a list of all equipment to be purchased through this project and the costs.

Section IX.
Financial Data – All Proposed Activities

A. Attach Schedule I - Facility Income Statement

1. For the most recent five prior full fiscal or calendar years
2. Projections during construction or implementation period (if applicable)
3. Projection for three years following completion of construction, or implementation of the proposed activity.

Schedule I Facility Income Statements: Projection during construction and for three years following completion of construction, or implementation of the proposed activity

Revenue & Expense Categories	2006	2007	2008	2009
REVENUE:				
<u>Revenue From Patients</u>				
Inpatient				
Outpatient	2,977,347	9,899,946	11,998,385	13,364,567
Total Patient Revenue	2,977,347	9,899,946	11,998,385	13,364,567
<u>Less Deductions</u>				
Charity Care	0	12,979	18,565	25,698
Contractual Allowances	495,106	1,880,990	2,279,693	2,657,632
Bad Debts	114,813	472,196	525,101	660,523
Total Deductions	609,919	2,366,165	2,823,359	3,343,853
<u>Net Operating Revenues</u>	2,367,428	7,533,781	9,175,026	10,020,714
<u>All Other Revenues</u>	16,520	29,984	24,953	28,250
EXPENSES:				
Salaries	659,110	1,002,184	1,060,944	1,092,772
Benefits	204,523	249,338	279,967	288,366
Supplies	201,834	331,753	350,936	361,464
Utilities	57,464	107,375	123,634	127,311
Property Tax	0	54,867	49,783	46,578
Rent	357,860	608,051	665,940	685,881
Lease	0	0	0	0
Other Expenses	1,754,090	4,322,277	4,377,436	5,193,462
Depreciation	887,381	1,577,054	1,601,842	1,601,842
Interest	153,059	566,642	534,561	403,437
Total Expenses	4,275,321	8,819,541	9,045,043	9,801,113
Excess (Shortage) of				
Revenue Over Expenditures	(1,891,373)	(1,255,776)	154,936	247,851

Note: The IAP Fiscal Year runs from January 1 to December 31. Fiscal Year 2006 began June 1, 2006 and ended December 31, 2006.

Section IX.
Financial Data – All Proposed Activities

Schedule II: Facility Balance Sheet for most recent five fiscal years and current fiscal or calendar year to date.

Schedule II.

Description	2006	2007	2008	2009
Assets				
Current Assets				
Cash & Cash Equivalents	495,058	468,639	473,889	480,922
Net Patient Accts Receivable	861,356	1,549,632	1,559,790	1,603,748
Accts Receivable - Other	0	9,379	4,181	4,310
Inventories	0	0	0	0
Prepaid Expenses	0	33,167	34,162	35,187
Other	<u>1,322</u>	<u>23,240</u>	<u>0</u>	<u>0</u>
Total Current Assets	1,357,736	2,084,057	2,072,022	2,124,167
Property & Equipment				
Land & Improvements	0	0	0	0
Building / Fixed Equipment	0	0	0	0
Major Movable Equip	7,976,040	8,181,432	8,181,432	8,181,432
Accumulated Depreciation	<u>887,381</u>	<u>2,464,435</u>	<u>4,066,277</u>	<u>5,668,119</u>
Net Property & Equipment	7,088,659	5,716,997	4,115,155	2,513,313
Other Assets	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Assets	<u>8,446,395</u>	<u>7,801,054</u>	<u>6,187,177</u>	<u>4,637,480</u>
Liabilities / Equity				
Current Liabilities				
Accts Payable	186,290	115,396	225,335	233,976
Accrued Expenses	1,375,173	744,698	625,227	699,279
Accrued Compensation	0	39,515	40,703	45,922
Other Accruals	0	0	0	0
Notes Payable	<u>2,110,668</u>	<u>1,745,615</u>	<u>1,885,460</u>	<u>1,723,756</u>
Total Current Liabilities	3,672,131	2,645,224	2,776,752	2,702,933
Long Term Liabilities				
Long Term Debt	6,165,636	6,602,976	4,702,665	2,978,909
Other	0	0	0	0
Total Long Term Liabilities	6,165,636	6,602,976	4,702,665	2,978,909
Equity	<u>(1,391,372)</u>	<u>(1,447,146)</u>	<u>(1,292,213)</u>	<u>(1,044,362)</u>
Total Liabilities & Equity	<u>8,446,395</u>	<u>7,801,054</u>	<u>6,187,177</u>	<u>4,637,480</u>

Note: The IAP Fiscal Year runs from January 1 to December 31. Fiscal Year 2006 began June 1, 2006 and ended December 31, 2006.

Section IX.
Financial Data – All Proposed Activities

C. Attach Schedule III - Average Patient Cost Per Day (Per Diem Rate if applicable) and Revenue Amounts

Provide revenue and expense data FOR EACH SERVICE that is identified as changing.

1. For the most recent five prior full fiscal or calendar years (information may be obtained on total patient load, directly from your respective years' Medicare Cost Reports)
2. Current fiscal or calendar year to date
3. Projection for five years following completion of construction or implementation.

Not applicable. The proposed project establishes outpatient facilities.

D. Attach Schedule IV – Operating Budget

Current and projected line item capital and operating budgets for the proposed activity. Describe what alternative plans have been made if deficits occur.

Not applicable. The project has already been constructed and is in operation.

E. Attach Schedule V

A debt service cash flow schedule over the life of the debt, if applicable, for all long-term debt of the facility. Identify each debt, including the proposed activity, and break out interest, principal, and other costs.

Schedule V

	12/31/2006	12/31/2007	12/31/2008	12/31/2009
Grand Total Principle	(106,213)	1,082,744	1,754,335	1,885,460
Grand Total Interest	131,860	566,642	534,562	403,437

Section IX.
Financial Data – All Proposed Activities

F. Schedule VI. Reimbursement Sources

Show reimbursement sources for the previous five years and projections for three years after the new project opens.

Schedule VI. Reimbursement Sources

FY 2006 (Six Months)

Reimbursement	Number of Scans	Gross Patient Charges	Deductions	Net Patient Revenues
Medicare		178,651	257,933	112,483
Medicaid		518,161	71,563	66,035
Insurance		1,952,396	59,246	1,111,993
Charity			3,276	
Self Pay		129,652	5,286	131,346
Other		198,487	4,903	111,551
TOTAL	3,648	2,977,347	402,210	1,533,408

* Outpatients Only

FY 2007

Reimbursement	Number of Scans	Gross Patient Charges	Deductions	Net Patient Revenues
Medicare	2,355	1,762,036	1,155,491	420,933
Medicaid	876	657,900	310,342	220,733
Insurance	8,758	6,578,489	404,923	4,942,760
Charity			17,428	
Self Pay	340	255,666	75,057	77,185
Other	860	645,855	47,040	430,216
TOTAL	13,190	9,899,946	2,010,281	6,091,827

* Outpatients Only

FY 2008

Reimbursement	Number of Scans	Gross Patient Charges	Deductions	Net Patient Revenues
Medicare	2,458	1,769,111	1,155,491	420,933
Medicaid	876	657,900	310,342	222,733
Insurance	9,140	8,256,562	459,190	6,625,693
Charity			56,992	
Self Pay	355	287,411	85,116	103,465
Other	897	726,048	53,344	576,698
TOTAL	13,765	11,998,385	2,279,693	8,165,999

* Outpatients Only

Section IX.
Financial Data – All Proposed Activities

F. Schedule VI. Reimbursement Sources

Show reimbursement sources for the previous five years and projections for three years after the new project opens.

Schedule VI. Reimbursement Sources
(continued)

FY 2009

Reimbursement	Number of Scans	Gross Patient Charges	Deductions	Net Patient Revenues
Medicare	2,647	2,386,530	1,572,416	677,105
Medicaid	984	887,507	422,320	355,067
Insurance	9,844	8,874,379	551,028	7,950,831
Charity			109,425	
Self Pay	383	344,893	102,139	124,158
Other	966	871,258	64,013	692,037
TOTAL	14,825	13,364,567	2,753,632	9,799,199

* Outpatients Only

G. Attach Schedule VII – Depreciation Schedule

Schedule VII IAP Imaging Practices Depreciation Schedule

Equipment Description	Cost	2006	2007	2008	2009
Total Equipment	7,568,387	824,037	1,477,196	1,491,205	1,491,205
Total Furniture & Fixtures	134,255	5,846	12,818	14,879	14,879
Total IT Support	478,790	57,498	87,040	95,758	95,758
Grand Total	8,181,432	887,381	1,577,054	1,601,842	1,601,842

Please see Table IIIC for a complete list of equipment purchased and AHA useful life.

APPLICATION FEE – DETERMINATION AND CERTIFICATION OF AMOUNT

How to Determine the Amount of the Application Fee Required Under 7 AAC 07.079

(1) For a project that does not include a lease of a facility or equipment, the value of the project is:

A. the amount listed on page 20 of this packet under Section VIIIA,
Financial Data – Acquisitions, subsection (2), item “a” (total
acquisition cost of land and buildings): \$ _____

plus

B. the amount listed on page 21 of this packet under Section VIIIB,
Financial Data – Construction Only, item “g” (total project cost,
which is the sum of items d, e, and f): \$ _____

Estimated Value of the Activity for (1)
(sum of A & B above) \$ _____

(2) For a project that has a component that is leased, the fair market value of the leased equipment, facility, or land must be considered in addition to the acquisition cost. See the form on page 31 of this packet for how to determine fair market value.

Estimated Fair Market Value for (2): \$ 2,443,520

Estimated Value for (1) from above: \$ 10,309,634

Total Estimated Value of the Activity
(sum of (1) and (2): \$ 12,753,154

Amount of Application Fee submitted with this application
(see 7 AAC 07.079 to calculate amount due): \$ 12,753

Note: The Fair Market Value figure above is the actual construction cost of the two medical office buildings that are leased.

Certification of Individual Determining Application Fee

I certify that, to the best of my knowledge, as of this date, the estimated value and fee for this certificate of need activity are accurate.

Date: January 25, 2008

Facility Name and Address: Imaging Associates of Providence
3701 East Tudor Road, Suite 205
Anchorage, Alaska 99507

Name and Title of Person Determining Application Fee: Mark Ackley, CEO, IAP

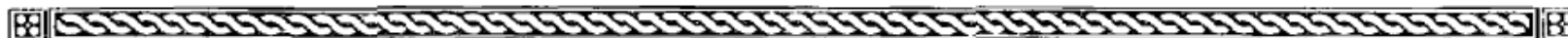
Signature of Certifying Officer of the Organization

APPENDICES

- A. Copy of the most current accreditation or certification.
- B. Floor plans
- C. Letters of support from local and regional agencies, other health care facilities, individuals, governmental bodies, etc.
- D. Organizational chart of IAP
- E. CV of Mark Ackley & Job Descriptions
- F. Copy of "Ups and Downs: Utilization 10 years out is expected to vary widely by modality" by Amit Sharma

APPENDIX A

Copy of the most current accreditation or certification



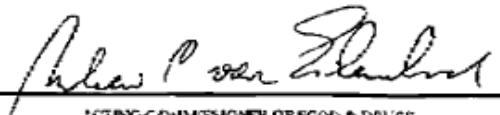
U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Food and Drug Administration

CERTIFIED MAMMOGRAPHY FACILITY

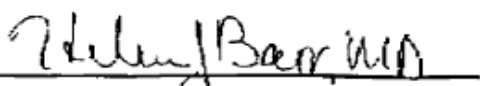
This certifies that

Imaging Associates of Providence

has complied with the requirements of the Mammography Quality Standards Act of 1992
and is hereby authorized to perform mammography examinations, pursuant to 42 U.S.C. 263b.


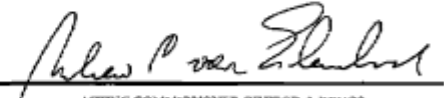
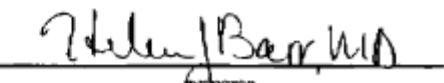

ACTING COMMISSIONER OF FOOD & DRUGS
FOOD AND DRUG ADMINISTRATION

Facility ID Number: 237073
Expiration Date: December 2, 2006


DIRECTOR
DIVISION OF MAMMOGRAPHY QUALITY AND RADIATION PROGRAMS
CENTER FOR DEVICES AND RADIOLOGICAL HEALTH

Patients may report comments/complaints to:
Mammography Accreditation Program
American College of Radiology
1831 Preston White Drive
Reston, Virginia 20191-4397

16288206-00 1

	U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
	Public Health Service
	Food and Drug Administration
	CERTIFIED MAMMOGRAPHY FACILITY
	This certifies that
	<i>Imaging Associates of Providence</i>
	has complied with the requirements of the Mammography Quality Standards Act of 1992 and is hereby authorized to perform mammography examinations, pursuant to 42 U.S.C. 263b.
	<div><div> ACTING COMMISSIONER OF FOOD & DRUGS FOOD AND DRUG ADMINISTRATION</div><div> DIRECTOR DIVISION OF MAMMOGRAPHY QUALITY AND RADIATION PROGRAMS CENTER FOR DEVICES AND RADIOLOGICAL HEALTH</div></div> <div><div>Facility ID Number: 237139</div><div>Expiration Date: September 13, 2009</div><div>Patients may report comments/complaints to: Mammography Accreditation Program American College of Radiology 1891 Preston White Drive Reston, Virginia 20191-4397</div></div>



American College of Radiology

The Mammographic Imaging Services of

**Imaging Associates of Providence
Anchorage, AK**

were surveyed by the
Committee on Mammography Accreditation of the
Commission on Quality and Safety

The following unit was approved :

Lorad Medical Systems Inc. SELENIA 2006

MAP ID # 16428-01

Accredited from :

November 28, 2006 through November 28, 2009

Debra J. Montross, MD, FACP

CHAIR, COMMITTEE ON MAMMOGRAPHY ACCREDITATION

James P. Boyette, MD

PRESIDENT, AMERICAN COLLEGE OF RADIOLOGY



American College of Radiology

The Mammographic Imaging Services of

**Imaging Associates of Providence
Palmer, AK**

were surveyed by the
Committee on Mammography Accreditation of the
Commission on Quality and Safety

The following unit was approved :

Lorad Medical Systems Inc. SELENIA 2006

MAP ID # 16434-01

Accredited from :

September 12, 2006 through September 12, 2009

Debra J. Montanido, MD, FACP

CHAIR, COMMITTEE ON MAMMOGRAPHY ACCREDITATION

James P. Borgstede, MD

PRESIDENT, AMERICAN COLLEGE OF RADIOLOGY

Alaska Business License # 313641

Alaska Department of Commerce, Community, and Economic Development

Division of Corporations, Business and Professional Licensing
P.O. Box 110806, Juneau, Alaska 99811-0806

This is to certify that

IMAGING ASSOCIATES OF PROVIDENCE

3701 E. TUDOR RD., #205, ANCHORAGE, AK 99507

owned by

IMAGING ASSOCIATES OF PROVIDENCE

is licensed by the department to conduct business for the period

December 21, 2007 through December 31, 2008

for the following line of business

62: Health Care and Social Assistance



This license shall not be taken as permission to do business in the state without having complied with the other requirements of the laws of the State or of the United States.


This license must be posted in a conspicuous place at the business location.
It is not transferable or assignable.

Commissioner: Emil Notti

CERTIFICATE OF REGISTRATION

The Radiation producing machines in possession of the below-named party have been registered in accordance with regulations of the Alaska Department of Health & Social Services (ADH&SS). (Registration does not imply compliance with applicable requirements of the Alaska Radiation Protection Regulations.)

Jen Mader, Clinic
Imaging Associates of Providence
2280 S. Woodworth LP
Palmer, AK 99645




Clyde E. Law
 Radiologic Health Specialist, ADH&SS
Advise of any status change within 30 days
 Expiration date: January 1, 2009
 Post in Radiology Department

06-1471

CERTIFICATE OF REGISTRATION

The Radiation producing machines in possession of the below-named party have been registered in accordance with regulations of the Alaska Department of Health & Social Services (ADH&SS). (Registration does not imply compliance with applicable requirements of the Alaska Radiation Protection Regulations.)

Jen Mader, Clinic
Imaging Associates of Providence
2000 Abbott Rd., Ste. 102
Anchorage, AK 99507



Clyde E. Law
 Radiologic Health Specialist, ADH&SS
Advise of any status change within 30 days
 Expiration date: January 1, 2009
 Post in Radiology Department

06-1471

CONTROLLED SUBSTANCE REGISTRATION CERTIFICATE
 UNITED STATES DEPARTMENT OF JUSTICE
 DRUG ENFORCEMENT ADMINISTRATION
 WASHINGTON, D.C. 20537

DEA REGISTRATION NUMBER	THIS REGISTRATION EXPIRES	FEE PAID
BI6588858	11-30-2008	PAID

SCHEDULES	BUSINESS ACTIVITY	ISSUE DATE
2,2N, 3,3N,4,5	PRACTITIONER	12-07-2005

INAMPUDI, CHAKRI MD 2000 ABBOTT ROAD		
ANCHORAGE	AK	99507-0000

THIS CERTIFICATE IS NOT TRANSFERABLE ON CHANGE OF OWNERSHIP, CONTROL, LOCATION, OR BUSINESS ACTIVITY, AND IT IS NOT VALID AFTER THE EXPIRATION DATE.

Sections 304 and 1008 (21 U.S.C. 824 and 958) of the Controlled Substances Act of 1970, as amended, provide that the Attorney General may revoke or suspend a registration to manufacture, distribute, dispense, import or export a controlled substance.

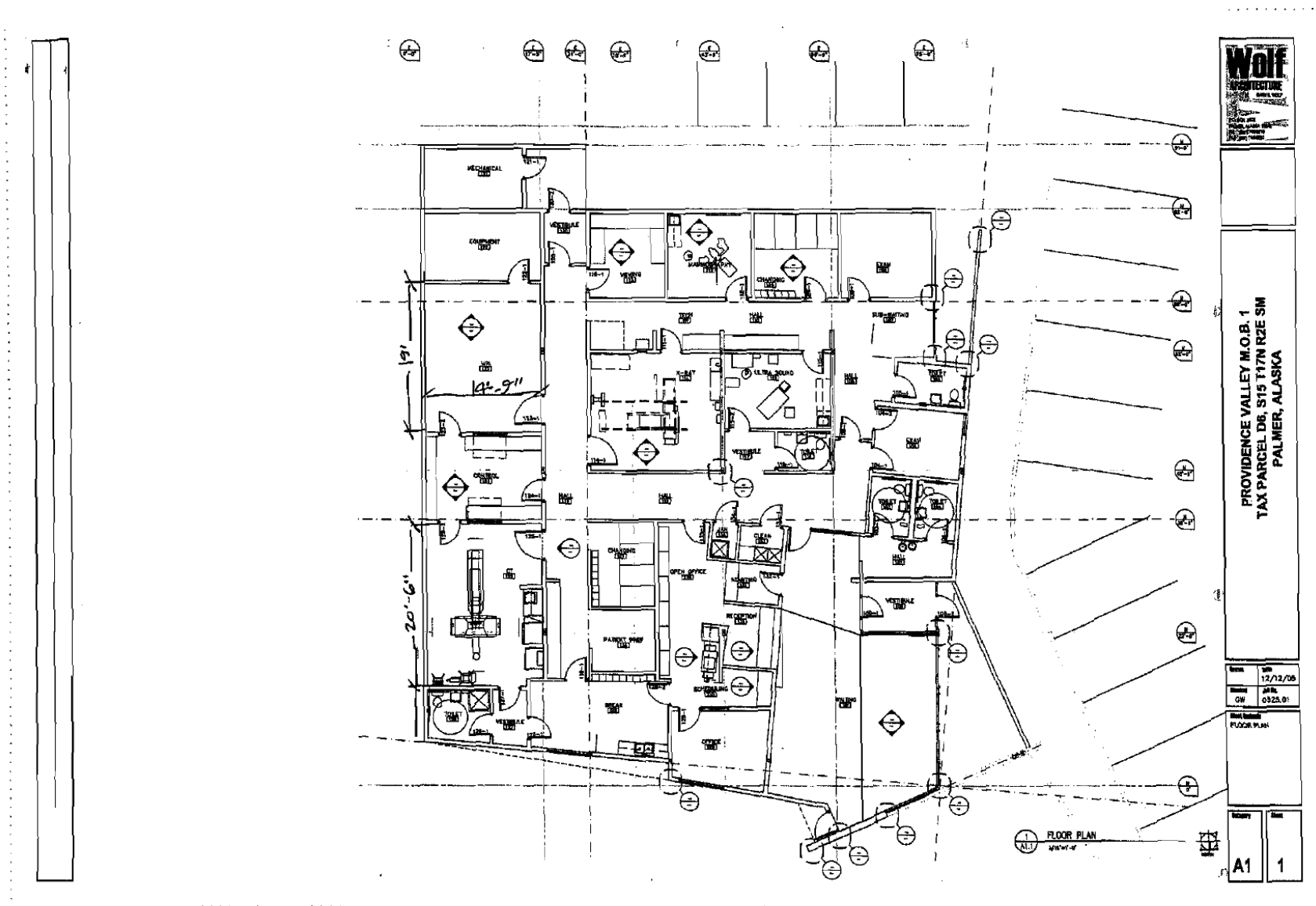
Form DEA-223 (7/05)

APPENDIX B

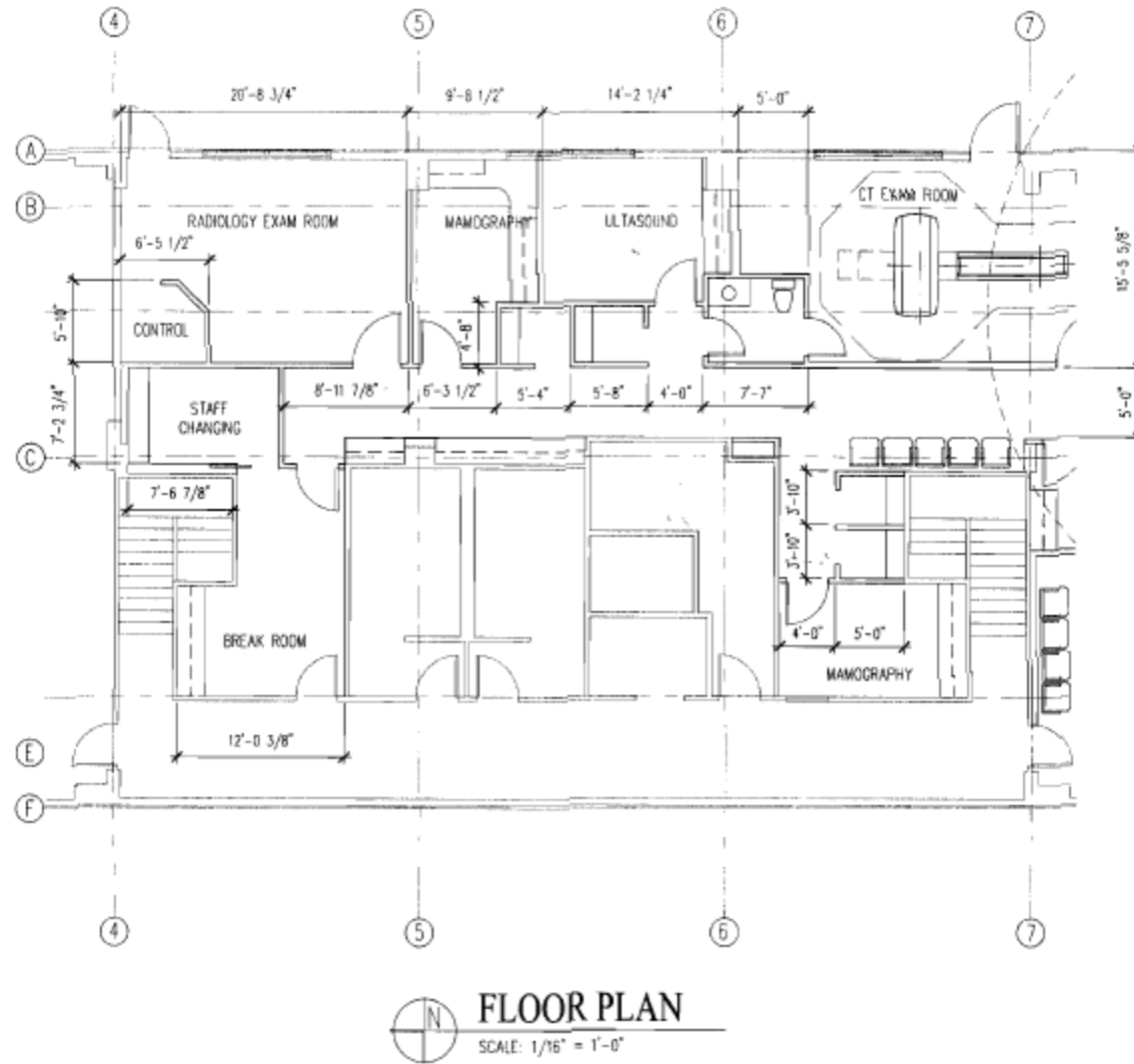
Floor Plans

1. Mat-Su Valley Office in Palmer
2. Abbott Road Office in Anchorage

Mat-Su Valley Providence Medical Office Building, 2280 South Woodworth Loop, Palmer, Alaska



Providence Abbott Road Medical Office Building, 2000 Abbott Road, Anchorage, Alaska



Appendix C

Letters of support from local and regional agencies, other health care facilities, individuals, governmental bodies, etc.



Valley Women's Health Care

SUSAN LEMAGIE, MD, FACOG
425 East Dahlia, Suite J
Palmer, Alaska 99645 · 907-745-8379

January 7, 2008

Imaging Associates of Providence

To Whom It May Concern:

I am writing in support of a certificate of need for the Valley office of Imaging Associates of Providence.

When I first heard that Providence was coming to the Valley, I was concerned and approached the CEO of Matanuska Susitna Regional Medical Center about how we needed to improve our quality of care to effectively compete. As time went on, however, and the hospital did not make any of the needed improvements, I began to refer all of my patients to the Imaging Center for the following reasons:

1. They provide digital mammograms rather than film-screen mammograms, a vast improvement in quality of imaging, particularly for younger patients and women with dense breast tissue. The American Cancer Society issued formal recommendations for care regarding digital mammograms in Spring 2007. I have actively lobbied hospital managers and board members over the last two years about the importance of this technology. The hospital is just now installing a digital mammography machine. I do not know if they plan to offer it to everyone or just higher risk women.
2. The digital mammograms at the Imaging Center, in addition to being higher quality, are cheaper for my patients.
3. The hospital has had problems with scheduling radiologic testing for years. When my office is faced with an anxious patient who needs a mammogram or ultrasound, we have usually been unable to reach a person at Mat-Su Regional to schedule it. We get directed to a voice mail to leave a message, which is only occasionally returned. The Imaging Center can be reached immediately and the patient leaves our office with an appointment in hand.

4. The waiting time at the hospital for a screening mammogram used to be 4-6 weeks. Now I can get a patient scheduled for either a screening or diagnostic mammogram at the Imaging Center within a few days, sometimes even on the same day.
5. The hospital would have periods of time when they would not send me copies of the mammograms they were doing, and instead I would get a phone call from an anxious patient saying she had just received a letter from the hospital telling her of an abnormal screening mammogram. This is not acceptable.
6. My patients have given me very favorable feedback concerning their experiences at the Imaging Center, and they contrast that to their previous experiences at the hospital. While the mammogram techs at the hospital all received praise, the front office staff did not treat the patients as well.
7. The radiologists at the Imaging Center have gone out of their way to cultivate a personal relationship and to give accurate, prompt reports to me, especially with abnormal testing. I frequently get a phone call or fax immediately after the patient's test has been read.
8. Many of my patients were already getting their digital mammograms at Providence in Anchorage. Having the service locally is very convenient for them.

In summary, I believe the competition provided by Imaging Associates of Providence has improved the quality of mammographic and ultrasound services in the Valley. As a patient advocate, I would like to urge you to provide a CON to Imaging Associates of Providence.

On a more personal note, I want to add my own testimony as a patient. I was diagnosed with a large Stage 1 breast cancer in November, 2006, with a digital mammogram at the Valley site of Imaging Associates of Providence. My last mammogram had been one year previous at Mat-Su Regional, which was read as normal, except for dense breasts. The year prior to that I had had a digital mammogram at Providence in Anchorage, which was normal. The contrast in clarity between the mammograms is shocking; the breast looked fine with the digital mammogram from 2 years ago, but the "normal"

mammogram at Mat-Su Regional the year previous to my diagnosis is essentially unreadable, due to the density of the breast tissue. If I had had my mammograms consistently done at Providence, there is no doubt that my cancer would have been diagnosed earlier, and that I would have opted for less radical treatment.

It has concerned me that Mat-Su Regional has consistently promoted the issue of a “turf war” in the media, while neglecting to focus on improving their services. Hopefully, the success of Imaging Associates of Providence will improve care at the hospital as well.

Sincerely,

A handwritten signature in cursive script, appearing to read "Susan Lemagie".

Susan Lemagie, MD

Brent Wells, DC
Arthur Pierce, DC
Jonathan Ramirez, DC
Attila Sipos, DC
Shannan Schewe, OTR-L
Carmen Vasco, DPT
Mandi Ehlers, MSPT



Chiropractic · Physical/Occupational Therapy · Massage Therapy
DRS Low Back Pain Treatment · MCU Neck Pain Therapy

1-4-2008

With this letter I wanted to take the opportunity to state my complete support for the existence of the imaging facility provided by the Imaging Associates of Providence in the Mat-Su Valley. As a Chiropractic Physician I am delighted to be able to assure patients that they will be able to receive prompt service and appointments at this facility. Even though there are two other imaging facilities in the Valley that provide MRI and CT scanning neither of these has been able to consistently provide the same day or next day appointments for my patients. These prompt imaging opportunities are crucial in documenting the acute injuries that occur during motor vehicle accidents for example. If these injuries are not imaged in their "fresh" state it is often difficult to prove to car insurance companies that the patient's neck pain or low back pain are a direct result of the motor vehicle accident. As a physician it is frustrating when prompt appointments are *not provided* to obtain these images because evidence of acute injury can disappear with the lapse of time.

Anchorage:

North/East Location
729 Northway Drive
Near Northway Mall

South/Midtown Location
8840 Old Seward Hwy.
Near Dimond Center

Wasilla:
595 East Parks Hwy.
In Carrs Center

Mailing Address:
PO Box 110270
Anchorage, AK 99511

I would like to suggest that equal machines, facilities, and technology do not necessarily guarantee equal access to these facilities. In my definition of access, I believe that prompt appointments are a crucial factor in delivering necessary medical services. Simply because two other imaging facilities exist in the Valley I am not convinced that Imaging Associates of Providence is not a necessary facility. They are indeed necessary as they have time and time again proven to be more accommodating in their scheduling.

Imaging Associates of Providence has also demonstrated a superior turnaround time in providing imaging reports to the ordering physicians. In a state where surgical, orthopedic and other spine related specialists are at a premium it is important for me as a chiropractor to obtain imaging reports quickly so that the appropriate referrals and consultations can be made before critical windows of care are closed. I have found that t Imaging Associates of Providence provides me with preliminary reports within 20 minutes of the procedure as well as final reports on the day of the procedure. This incredible turnaround time puts my patients ahead in the clinical decision making process.

I do not want to sound ungrateful for the existence of the Mat-Su Regional facility and their radiology department. I applaud Mat-Su Regional's efforts at providing in-hospital imaging services essential to life-saving clinical decisions. Yet I must state that Imaging Associates of Providence has made the necessary efforts to cater to the needs of medical and Chiropractic physicians who are not in the hospital system and need prompt appointments, and prompt reports to deliver high quality care in the valley.

In Anchorage:
(907) 346-5255

Outside Anchorage
Toll Free: (877) 346-5255

Sincerely, 
Jonathan Ramirez, DC
Chiropractic Physician



NORTHERN NEUROLOGY CONSULTANTS, LLC
JAY D. MAKIM, MBBS, MD.

3650 Lake Otis Parkway, Suite 205 Anchorage, Alaska 99508

Phone: (907) 561-1565

Fax: (907) 561-1541

Date: January 8, 2008

To,

Imaging Associate of Providence

Re: Providence South Side facility 3T MRI

Dear Sir/Madam,

I have been asked to write a letter in regards to current need of new Providence Southside facility which has the newest and latest technologically advanced, and state of the art 3T MRI machine as well as various other imaging and diagnostic services.

When the facility opened I was so grateful to hear that there is additional facility in Anchorage which will serve south side of the town, for easy commute, easy access, in and out, efficient and very quick to schedule various diagnostic testing. 3T MRI in particular is the most latest, and advanced technology to find pathology of brain, spinal cord, disc, or other body parts and very best for Seizure, Epilepsy, Cancer, Tumor, Strokes, MS, to just name few, and most disorders are now a day diagnosed with MRI and such high quality machine with finest and precise diagnostic ability in whole State of Alaska is the best thing that happened to Alaska, so that people do not have to go to out of state.

The facility also has ability to work with providence hospital to be able to quickly compare other tests or prior tests, and is run by experts who are one of the bests in the field. Facility in Wasilla has large bore, which can take patient up to 550lbs, which no one in Alaska will take that kind of patient, and will facilitate access to providence system, as well as quick scheduling, so that patient do not have to travel to Anchorage, and will help patient in Palmar, Willow and Houston.

Sincerely,

Jay Makim, MBBS, MD

I read with interest the article in the newspaper, the Mat-su section January 9th on the imaging center will seek certificate of need.

I broke both my shoulders and tore the rotator cuffs in both shoulders and also dislocated my right shoulder. Some tendon and ligament damage was also done in my left shoulder. I had to have surgery on both shoulders. This incident occurred 11/5/07. Since that time I have had several x-rays, MRI's CT scan, etc. I continue to still have these rechecked to see if my right shoulder in particular is progressing. Since my doctor wants these done ASAP I usually can not get in right away at the Mat Regional Medical Center so I go to Imaging Associates of Providence. My doctor who is located in Anchorage can get the results immediately from Providence. Providence is also the preferred provider for my insurance. If I would have had to go to Anchorage for these procedures it would have been great inconvenience for me since I had both arms in slings and cannot drive. I have to still depend on my daughter who lives in Wasilla and my husband who works in Anchorage to take me to these appointments. My husband would have to miss a lot of work if he had to take me and my daughter and her husband have their own business and she would not have been able to take at least 3 hours out of her schedule to take me to Anchorage. Fortunately for me she only lives about 20 min. from my home and the Imaging Associates of Providence is only 15 minutes away. I can rely on her to leave her business and take me for these scans, etc without taking up a lot of her time.

There is a definite need for this center to remain open. I know I am not the only person out here that needs transportation for these appointments and has to rely on others. When I go for my appointments I see many other patients who have someone bring them in.

I hope the state realizes the importance of the center and grants the "certificate of need".

Lynnette Stouff
P.O. Box 1749
Palmer, AK 99645

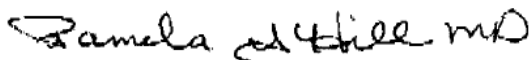
**Pamela S. Hill, MD
2490 S. Woodworth Loop, Ste 401
Palmer, Ak 99645
(907) 745-9310**

January 9, 2008

To Whom It May Concern:

I'm writing to support Providence Imaging Associates open in the Mat-Su Valley. They were the first to have digital mammography available in the area and this was important to me as a gynecologist. They have accessible patient appointments and are readily available for emergencies. Unlike other facilities patients are comfortable in the building and feel like the staff really cares about their health. Any questions can be addressed to me at the above address and phone number. Thank you.

Sincerely,



Pamela S. Hill, M.D.

Jan 9, 2008

Mark Ackley, CEO
Imaging Associates of Providence
3701 E. Tudor Rd., Suite 205
Anchorage, AK 99507

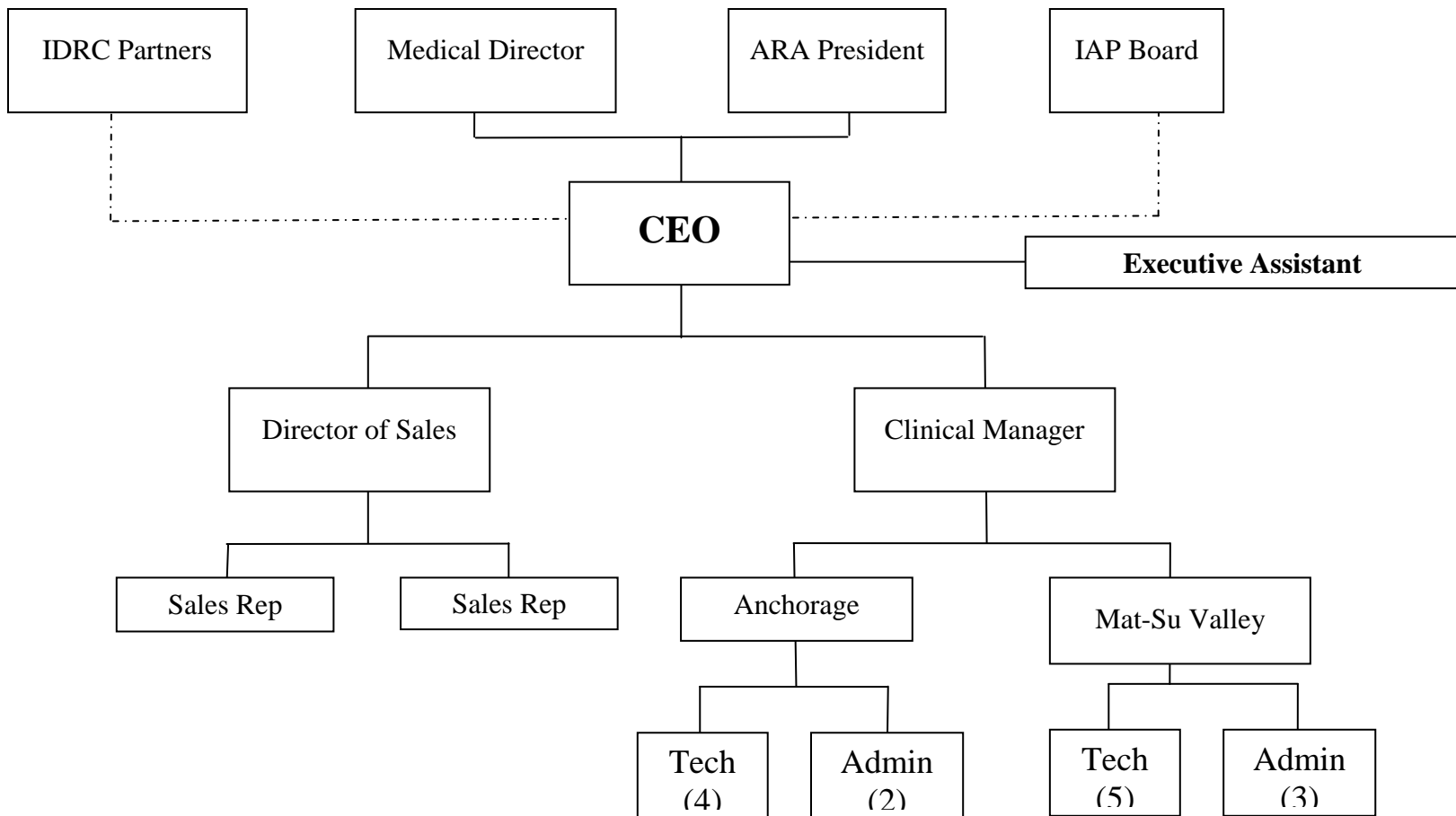
Mr. Ackley,

This is a letter in support for Imaging Associates of Providence,
As a citizen of the Mat-Su: We need to have some options for health care as the
Anchorage folks do.

As an employee: My Health insurance names a preferred provider, and it's
Providence I don't like having to drive to Anchorage for all my health care.
Having Imaging Associates of Providence in the valley would be of great
beneficial value to all the Matanuska-Susitna Borough. Think of all the Time
saved not having to leave work and drive to Anchorage. Not to mention the
savings on gas, wear and tear on our cars and most importantly our
environment.

Michael Weller
723 N Gulkana Ct
Palmer, Alaska 99645
msw@ak.net

APPENDIX D
Organization Chart
Revised March 2006



APPENDIX E

CEO CV
Job Descriptions

Mark Ackley

3320 Beamreach Ct. • Anchorage, AK 99516 • Home 907.743.0552 • Email: mark.ackley@gci.net

Professional Summary

Chief Executive Officer

Imaging Associates of Providence, Anchorage, AK

November 2006 – Present

Executive Director/Vice President, Ambulatory Services

Mid-Columbia Medical Center, The Dalles, OR

January 2005 – August 2006

Administrator, Regional Operations

St. Mary's Duluth Clinic Health System, Duluth, MN

February 2000 – January 2005

Regional Vice President

Community Physicians Network, Louisville, KY

December 1998 – December 1999

Director of Practice Management

St. Francis Hospital, Monroe, LA

December 1996 – November 1998

Director of Case Management

Univ. of New Mexico, Health Science Center, Albuquerque, NM

December 1994 – November 1996

U.S. Army

European Command, Office of the Provost Marshall

January 1980 – January 1986

Education

1996 MA General Management, Univ. of Phoenix, Albuquerque Campus, NM

1992 B.S. Psychology/Biology, Univ. of New Mexico, Albuquerque, NM

1998 Certified Practice Manager, American College of Medical Staff Development

Professional Associations

- Radiology Business Management Association
- American College of Medical Practice Executives
- American College of Medical Staff Development
- Medical Group Management Association (National and Alaska)

Other

- 2004 -- 2005 Board of Directors, Wisconsin Medical Group Management Association
- 2003--2004 Authored weekly healthcare column in Ashland Daily Press "Taking Care."
- 2005 -- Presenter, Oregon Rural Learning Collaborative: *Applying a Chronic Care Model for Diabetes*

Imaging Associates of Providence
Job Description

Job Code: 1005

Job Title: CT Technologist

Reports To: Chief Technologist, Executive Director

Supervises: N/A

Description Status: New 01/06

Position Summary

Provides state of the art care to all patients by performing technical work involving the operation and maintenance of computed tomography equipment.

Job Functions:

A. Job Duties (for performance review, assess competence for each function)

1. Procedures: Performs a variety of technical procedures according to national standards. Performs CT examinations according to physician order and written policy, using sophisticated equipment. Utilizes knowledge and judgment in regard to imaging factors, imaging technique and patient care needed to produce optimal images.
2. Documentation: Responsible for accurately completing records, daily quality assurance and improvement information, meeting regulatory standards.
3. Equipment: Calibrates, maintains and troubleshoots equipment. Optimizes equipment and supplies to benefit operations.
4. Supplies and Inventory: Stocks work area daily. May be involved in ordering and stocking general supplies.
5. Safety and Education: Complies with national radiation standards (ALARA). Practices Body Substance Isolation. Completes education necessary to maintain licensure or certification required for position.
6. Communication: Communicates with physicians and other members of the team concerning patient status, diagnosis, or related information. Operates multiple communication and telecommunication systems. Coordinates scheduling for diagnostic exams. Communicates with team members by regular participation in staff meetings.
7. Implements care/services that recognize age/diversity specific needs/issues of customers served.
8. Performs other duties as required.

B. Competencies

Completes initial and annual competency plan for assigned job and department.

- C. Conduct-** Demonstrates personal and interpersonal qualities consistent with the Providence Health system code of conduct (integrity, compliance and ethics in the workplace).

Job Qualifications

1. **Education:** Successful completion of an AMA approved training program for radiologic technology.
2. **Experience:** Current experience as a CT Technologist preferred.
3. **Licensure/Certification:** Must be ARRT registered. CT (ARRT) certification is preferred, but not required.
4. **Other Qualifications:** Requires the ability to work with a variety of people to include patients and their representatives, other staff, physicians and their staffs, vendors and regulatory personnel. MRI experience is beneficial.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write and speak English.

This job description reflects Imaging Associates of Providence's best effort to describe the essential functions and qualifications of the job described. It is not an exhaustive statement of all the duties, responsibilities or qualifications of the job. This document is not intended to exclude an opportunity for modifications consistent with providing reasonable accommodation. This is not intended as a contract. Your signature indicates you have read this job description and understand the essential functions and essential qualifications of the job.

Employee Printed Name: _____ Date: _____

Employee Signature: _____ SSN: _____

Imaging Associates of Providence
Job Description

Job Code: 1003

Job Title: Mammography Technologist

Reports To: Chief Technologist, Executive Director

Supervises: N/A

Description Status: New 01/06

Position Summary

Under supervision of a radiologist performs mammographic examinations utilizing a variety of radiologic equipment.

Job Functions:

A. Job Duties (for performance review, assess competence for each function)

1. Procedures: Performs a variety of mammographic procedures according to clinic and national standards.
2. Documentation: Responsible for accurately completing records, daily quality assurance and improvement information, meeting regulatory standards. Obtains and documents patient history information.
3. Equipment: Calibrates, maintains and troubleshoots equipment. Optimizes equipment and supplies to benefit operations.
4. Supplies and Inventory: Stocks work area daily. May be involved in ordering and stocking general supplies.
5. Safety and Education: Complies with national radiation standards (ALARA). Practices Body Substance Isolation. Completes education necessary to maintain licensure or certification *required for position*.
6. Communication: Communicates with physicians and other members of the team concerning patient status, diagnosis, or related information. Operates multiple communication and telecommunication systems. Coordinates scheduling for diagnostic exams. Communicates with team members by regular participation in staff meetings.
7. Implements care/services that recognize age/diversity specific needs/issues of customers served.
8. Performs other duties as required.

B. Competencies

Completes initial and annual competency plan for assigned job and department.

- C. Conduct-** Demonstrates personal and interpersonal qualities consistent with the Providence Health system code of conduct (integrity, compliance and ethics in the workplace).

Job Qualifications

1. **Education:** Successful completion of an AMA approved training program for radiologic technology.
2. **Experience:** Two years experience as a Radiologic Technologist preferred. One year clinical experience as a mammographer preferred.
3. **Licensure/Certification:** Must be ARRT registered. Mammography registration required within one (1) year of hire.
4. **Other Qualifications:** Requires extensive knowledge of breast anatomy and physiology. Requires knowledge of breast pathology and mammographic signs of pathology. Must have knowledge of all mammographic positions and the ability to radiographically record the required information.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write and speak English.

This job description reflects Imaging Associates of Providence's best effort to describe the essential functions and qualifications of the job described. It is not an exhaustive statement of all the duties, responsibilities or qualifications of the job. This document is not intended to exclude an opportunity for modifications consistent with providing reasonable accommodation. This is not intended as a contract. Your signature indicates you have read this job description and understand the essential functions and essential qualifications of the job.

Employee Printed Name: _____ Date: _____

Employee Signature: _____ SSN: _____

Imaging Associates of Providence
Job Description

Job Code: 1006

Job Title: MRI Technologist

Reports To: Chief Technologist, Executive Director

Supervises: N/A

Description Status: New 01/06

Position Summary

Provides state of the art care to all patients by performing technical work involving the operation and maintenance of magnetic resonance equipment.

Job Functions:

A. Job Duties (for performance review, assess competence for each function)

1. Procedures: Performs a variety of technical procedures according to national standards. Performs MRI examinations according to physician order and written policy, using sophisticated equipment. Utilizes knowledge and judgment in regard to imaging factors, imaging technique and patient care needed to produce optimal images.
2. Documentation: Responsible for accurately completing records, daily quality assurance and improvement information, meeting regulatory standards.
3. Equipment: Calibrates, maintains and troubleshoots equipment. Optimizes equipment and supplies to benefit operations.
4. Supplies and Inventory: Stocks work area daily. May be involved in ordering and stocking general supplies.
5. Safety and Education: Complies with national safety standards. Practices Body Substance Isolation. Completes education necessary to maintain licensure or certification required for position.
6. Communication: Communicates with physicians and other members of the team concerning patient status, diagnosis, or related information. Operates multiple communication and telecommunication systems. Coordinates scheduling for diagnostic exams. Communicates with team members by regular participation in staff meetings.
7. Implements care/services that recognize age/diversity specific needs/issues of customers served.
8. Performs other duties as required.

B. Competencies

Completes initial and annual competency plan for assigned job and department.

- C. Conduct-** Demonstrates personal and interpersonal qualities consistent with the Providence Health system code of conduct (integrity, compliance and ethics in the workplace).

Job Qualifications

1. **Education:** Successful completion of an AMA approved training program for radiologic technology.
2. **Experience:** Current experience as a MRI Technologist preferred.
3. **Licensure/Certification:** Must be ARRT registered. MRI (ARRT) certification is preferred, but not required.
4. **Other Qualifications:** Requires the ability to work with a variety of people to include patients and their representatives, other staff, physicians and their staffs, vendors and regulatory personnel. CT experience is beneficial.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write and speak English.

This job description reflects Imaging Associates of Providence's best effort to describe the essential functions and qualifications of the job described. It is not an exhaustive statement of all the duties, responsibilities or qualifications of the job. This document is not intended to exclude an opportunity for modifications consistent with providing reasonable accommodation. This is not intended as a contract. Your signature indicates you have read this job description and understand the essential functions and essential qualifications of the job.

Employee Printed Name: _____ Date: _____

Employee Signature: _____ SSN: _____

Imaging Associates of Providence
Job Description

Job Code: 1004

Job Title: Registered Sonographer/RVT

Reports To: Chief Technologist, Executive Director

Supervises: N/A

Description Status: New 01/06

Position Summary

Performs all the essential functions of the Registered Sonographer. Performs and evaluates sonographic examinations and physiologic vascular testing. Obtains clinical history and performs a physical assessment of the patient's condition to determine appropriate testing protocol. Provides a technical interpretation of sonographic and physiologic data to aid physicians in rendering a medical diagnosis. Requires credentials from the American Registry of Diagnostic Medical Sonographers in a minimum of three specialties including vascular technology. New grads may be allowed to acquire some specialties after hire.

Job Functions:

A. Job Duties (for performance review, assess competence for each function)

1. **Procedures:** Performs a variety of diagnostic sonographic and non-invasive vascular procedures in accordance with department, hospital, and national standards. Reviews the patient record prior to examination, and obtains history from the patient.
2. **Documentation:** Responsible for accurately completing records, daily quality assurance and improvement information, meeting accreditation standards.
3. **Equipment:** Calibrates, maintains and troubleshoots sonographic equipment. Optimizes equipment and supplies to benefit operations.
4. **Supplies and Inventory:** Stocks work area daily. May be involved in ordering and stocking general supplies.
5. **Safety and Education:** Complies with clinic standards. Practices Body Substance Isolation. Completes education necessary to maintain licensure or certification required for position. Assists in the orientation and training of new employees.
6. **Communication:** Communicates with physicians and other members of the team concerning patient status, diagnosis, or related information. Operates multiple communication and telecommunication systems. Coordinates scheduling for diagnostic exams. Communicates with team members by regular participation in staff meetings.

7. Implements care/services that recognize age/diversity specific needs/issues of customers served.
8. Performs other duties as required.

B. Competencies

Completes initial and annual competency plan for assigned job and department.

- C. Conduct-** Demonstrates personal and interpersonal qualities consistent with the Providence Health system code of conduct (integrity, compliance and ethics in the workplace).

Job Qualifications

1. **Education:** Successful completion of an accredited ultrasound program (minimum of one year in length) and an associate degree in a related health care field or credentials with the American Registry of Radiologic Technologists.
2. **Experience:** Two years recent full-time paid experience in abdomen, OB/GYN, and vascular technology preferred. Recent graduates from an AMA accredited program must be able to obtain OB-GYN and Abdomen registries within six (6) months of hire date and vascular registry within eighteen (18) months.
3. **Licensure/Certification:** Registry credentials with the American Registry of Diagnostic Medical Sonographers in Abdomen, OB/GYN and Vascular Technology is required. If registry eligible, must obtain Abdomen and OB/GYN within six (6) months and Vascular within eighteen (18) months.
4. **Other Qualifications:** Requires the ability to work with a variety of people to include patients and their representatives, other staff, physicians and their staffs, vendors and regulatory personnel. Membership in a professional organization such as the Society of Diagnostic Medical Sonographers, Society of Vascular Technologists, or American Institute of Ultrasound in Medicine is encouraged.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write and speak English.

This job description reflects Imaging Associates of Providence's best effort to describe the essential functions and qualifications of the job described. It is not an exhaustive statement of all the duties, responsibilities or qualifications of the job. This document is not intended to exclude an opportunity for modifications consistent with providing reasonable accommodation. This is not intended as a contract. Your signature indicates you have read this job description and understand the essential functions and essential qualifications of the job.

Employee Printed Name: _____ Date: _____

Employee Signature: _____ SSN: _____

APPENDIX F

Sharma, Amit. "Ups and Downs: Utilization 10 years out is expected to vary widely by modality." Advance for Imaging and Radiation Therapy Professionals. December 26, 2006. Merion Publications, King of Prussia, PA).

Ups and Downs

Utilization 10 years out is expected to vary widely by modality. Learn who'll be gaining, waning and merely maintaining.

by Amit Sharma

Imaging is a fundamental patient management tool for physicians across all sites of care-and its importance will only grow over the next decade, when outpatient imaging jumps by an estimated 17 percent, according to Sg2, a health care intelligence and consulting firm based in Skokie, Ill.

But the overall outlook is somewhat deceptive, because all imaging modalities clearly aren't alike. While a growing and aging U.S. population will drive demand, population trends alone can't accurately predict imaging needs. Technology and procedure trends, shifts in care delivery, national economic trends, changing payment and reimbursement, and the continuing shift from inpatient to outpatient care will collectively determine how individual modalities fare in the coming decade.

As a result, key modalities such as computed tomography (CT), magnetic resonance (MR) and positron emission tomography (PET) will expand at a much greater rate than the industry overall by 2016. Conversely, other modalities such as X-ray and single photon emission computed tomography will either grow more slowly than imaging overall or even decline by 2016.

Traditionally used primarily as a diagnostic tool, imaging's role in patient care is steadily expanding to all stages of the care continuum, from screening to treatment monitoring. In perhaps the biggest change of the coming decade, imaging will become increasingly critical to treatment. Understanding the major underlying trends and their impact on overall and modality-specific imaging utilization will be crucial for health care organizations as they develop an imaging services program that supports high-quality care, generates strong revenue and grows market share.

Utilization by modality

- **CT.** CT utilization will soar by 57 percent by 2016, as it captures volume from X-ray and interventional diagnostic procedures. Increasingly, CT will be used in emergency departments as a rapid diagnostic tool for chest and abdominal pain and trauma. Next-generation multislice CT technology will revolutionize cardiac diagnostic work, decreasing cardiac SPECT over the next two to five years and diagnostic cardiac catheterization over the next four to eight years. CT angiography (CTA) will see large growth in peripheral and carotid studies, while early detection will boost utilization of therapeutic interventional procedures. As cancer patients live longer, CT will be used for frequent staging and monitoring. The largest volume growth will occur in chest CT, virtual colonoscopy and coronary CTA.
- **MRI.** Driven in part by continued growth in spine and joint studies and aging baby boomers' expectations of continued high activity levels as they age, overall MRI utilization will surge by 44 percent by 2016. Minimally invasive procedures will increase the number of patients opting for surgery, further increasing MR volumes. Advanced MR applications such as functional and diffusion MR will be used to stage cancer and stroke patients, while breast MR procedures in support of cancer diagnostics will be one of the fastest-growing applications. Although MR angiography already has grown considerably, it will see increasing volume in lower-extremity studies. Cardiac MR studies of post-congestive heart failure and post-acute myocardial infarction will nearly triple.

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- PET. PET utilization will balloon 120 percent by 2016. With their ability to effectively image function and tumor metabolism, fusion PET/CT systems will be rapidly adopted for new indications and applications, particularly cancer staging and therapy monitoring. Cancer patients will be identified earlier in the course of their disease and live longer, causing PET volumes to more than double over the next 10 years. PET also will play a larger role in the neurosciences to support Parkinson's and Alzheimer's patient management.
- SPECT. Although the standard of care in cardiac studies, SPECT will lose that designation in the coming decade to more advanced diagnostic exams such as coronary CTA that are more sensitive and specific. As a result, SPECT's volume will decline 14 percent by 2016.
- Ultrasound. Ultrasound volume will nearly keep pace with the imaging industry overall, increasing 16 percent by 2016, Sg2 forecasts. More screenings for vascular disease including abdominal aortic aneurysm, carotid and extremity vascular studies will drive growth.
- X-ray. Volumes will expand just 8 percent over the next 10 years. Declining reimbursement and more stringent X-ray accreditation requirements will trigger a shift in many chest, abdominal and musculoskeletal X-ray studies to CT and MRI. However, offsetting some of this shift in volumes, digital mammography volumes will double by 2016.

Growth opportunities

Outpatient imaging growth trends offer strong market opportunities for hospitals and freestanding imaging centers. However, capitalizing on those opportunities requires more than simply purchasing the latest equipment in fast-growing modalities. With the myriad factors affecting the outlook for outpatient imaging overall as well as individual modalities, health care organizations will face regular clinical, operational and financial changes in the coming decade. Creating and executing a future-focused and flexible imaging strategic plan will ensure smart growth and enable organizations to provide high-quality imaging to support patient management.

To be successful, organizations must evaluate their current clinical capabilities, existing facilities and operational workflow before assessing the impact of changing imaging demands in their specific markets. A strong outpatient strategy consists of a balance of three key pillars: smart technology adoption, clinical excellence and service execution.

Understanding future demands will support strategic capital purchasing decisions in high-growth modalities and applications while ensuring that physicians are credentialed to interpret and perform these procedures with high-quality results. As outpatient imaging continues to grow, it will become more service-oriented. For this reason, organizations must focus on satisfying the current and future needs of patients and referring physicians to make the organization's imaging services a crucial part of their health care experience.

Amit Sharma is program lead for the imaging intelligence program at Sg2, Skokie, Ill.

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