

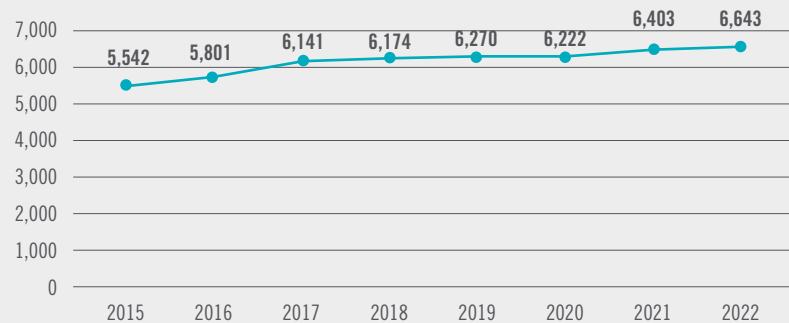
Diagnostic imaging professionals use images to assist in diagnosing and treating diseases and injuries. Radiologists make diagnoses, radiology technologists obtain images and nurses in radiology provide care coordination.

Artificial intelligence is predicted to assist technologists in calculating test settings, schedulers in determining candidates for outreach and physicians in selecting tests, enhancing detection and interpreting findings. Physicians are likely to be impacted the most by artificial intelligence. As science advances, so will the skills required to operate new equipment and interpret expanding data.

## OUTLOOK

The demand for diagnostic imaging professionals has grown due to an aging population, extended service hours and increased use of a variety of tests in diagnosis. That is expected to continue as Kaiser Permanente's members are increasingly diverse and requiring more customized care.

**RISING DEMAND:** Kaiser Permanente's diagnostic imaging jobs have grown 20% since 2015.



## EDUCATION AND ADVANCED TRAINING

### Education

- » Military service/certification
- » Post-2015 ARRT Technologist Certification requires associate degree; licensure requirements vary by state

- » Specialties by certification and/or bachelor's degree

### Foundational skills

- » Education trust funds

### Radiology technologist

- » Community colleges

### Radiology specialties

- » Kaiser Permanente School of Allied Health Sciences
- » California State University, Northridge
- » Loma Linda University
- » Mayo Clinic

## CREDENTIALS AND ASSOCIATIONS

### X-ray (bone densitometry and radiography)

- » Computed tomography
- » Fluoroscopy
- » Magnetic resonance imaging
- » Mammography
- » Nuclear medicine technology

- » Positron emission tomography
- » Sonography (ultrasound)\*

### Common types of inpatient diagnostic radiology credentials include:

- » Cardiac interventional radiography
- » Radiation therapy
- » Registered radiologist assistant
- » Vascular interventional radiography

### Professional associations

- » American Registry of Radiologic Technologists
  - » American Society of Radiologic Technologists
- \* Kaiser Permanente expects sonographers to do breast and vascular sonography

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## WORK ENVIRONMENT

### Care settings

- » Inpatient/hospital
- » Outpatient/ambulatory

### Care anywhere

- » Mobile devices make testing possible in any setting
- » Artificial intelligence will enable more exact diagnosis and treatment
- » Proactive scheduling of screening tests

## TAKE ACTION

**Employees:** Explore career paths at [kpcareerplanning.org/paths](http://kpcareerplanning.org/paths). Partnership union members can talk with an education trust career counselor: Ben Hudnall Memorial Trust ([bhmt.org/career-coaching](http://bhmt.org/career-coaching)), SEIU UHW-West and Joint Employer Education Fund ([theedfund.org/cc](http://theedfund.org/cc)), or SEIU Healthcare 1199NW Multi-Employer Training Fund ([healthcarefund.org/programs-services/career-counseling](http://healthcarefund.org/programs-services/career-counseling)).

**Managers:** Adapt to emerging trends. Talk with a Workforce of the Future implementation specialist to discuss training and education opportunities ([kpcareerplanning.org/prd/contact-us.php](http://kpcareerplanning.org/prd/contact-us.php)).

### CURRENT CORE JOB SKILLS

- » Compassionate customer service to resolve concerns in a positive way
- » Good communication skills with providers and peers
- » Competence in operating stationary and mobile devices
- » Proper use of computer and ancillary equipment
- » Consistently select correct technical factors reflecting patient age and body
- » Quality/safety skills
- » Multimodality skills (progressively able to use magnetic resonance imaging, computed tomography, mammography, sonography, interventional radiology)

### FUTURE CORE SKILLS

- » Continuous and on-the-job learning needed to learn new procedures and tests
- » More complex machinery and tests will require more attention to safety
- » Artificial intelligence may simplify body placement
- » Growing need for computer and data analytical skills
- » Care coordination for radiology nurses
- » Varying payment plans and more competition will require good customer service skills
- » Collaboration
- » Adaptability

### EMERGING OPPORTUNITIES

- » Technologists have critical understanding of workflow, making implementation of artificial intelligence more effective
- » New job opportunities for assisting physicians with data analysis because of artificial intelligence
- » Performance improvement and quality skills may lead to other positions in safety and quality

UPDATED JANUARY 2024