

PROTECTING THE PUBLIC AND PREVENTING HARM BY COMPLETING THE REGULATION OF MEDICAL IMAGING PROFESSIONS

Submission to include the sonographer
profession in the National Registration and Accreditation Scheme
under the Medical Radiation Practice Board of Australia

Prepared by the Working Group for Sonographer Regulation.

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Consisting of:

Australasian Sonographers Association (ASA)
Australasian Society for Ultrasound in Medicine (ASUM)
Australian Sonographer Accreditation Registry (ASAR)
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LIST OF ACRONYMS

AHMAC	Australian Health Ministers' Advisory Council
AHPRA	Australian Health Practitioner Regulation Agency
ALARA	As Low As Reasonably Achievable
ASA	Australasian Sonographers Association
ASAR	Australian Sonographer Accreditation Registry
ASMIRT	Australian Society of Medical Imaging and Radiation Therapy
ASQA	Australian Skills Quality Authority
ASUM	Australasian Society for Ultrasound in Medicine
CPD	Continuing Professional Development
DIAS	Diagnostic Imaging Accreditation Scheme
EBA	Enterprise Bargaining Agreement
HCCC	Health Care Complaints Commission
HCE	Health Complaints Entities
HPCA	Health Professional Councils Authority
HWPC	Health Workforce Principal Committee
IGA	Intergovernmental Agreement
MBS	Medicare Benefits Scheme
MRPBA	Medical Radiation Practice Board of Australia
MRTB	Medical Radiation Technologists Board (New Zealand)
NASRHP	National Alliance of Self Regulating Health Professions
NRAS	National Registration and Accreditation Scheme
OHO	Office of the Health Ombudsman
PII	Professional Indemnity Insurance
POCUS	Point-of-care Ultrasound
TEQSA	Tertiary Education Quality and Standards Agency

SONOGRAPHER REGULATION SUBMISSION

EXECUTIVE SUMMARY

Patients receiving medical ultrasound examinations should reasonably expect that the person who is scanning them is held to a high regulatory standard to ensure they are safe and provided with a high quality service. However, sonographers who are the highly skilled health professionals that perform the majority of diagnostic medical ultrasound examinations on behalf of a medical practitioner are not regulated under the National Registration and Accreditation Scheme.

For the safety and protection of the public, Health Ministers are asked to agree that the sonography profession needs to be regulated under the National Registration and Accreditation Scheme (NRAS) by adding the profession to the existing Medical Radiation Practice Board of Australia (MRPBA), thus completing the regulation of medical imaging professions.

A formal industry working group, known as the Working Group for Sonographer Regulation and composed of the Australasian Sonographers Association (ASA), the Australasian Society for Ultrasound in Medicine (ASUM), the Australian Sonographer Accreditation Registry (ASAR) and a sonographer representative, has developed this submission by responding to the six criteria specified and explained in the Australian Health Ministers' Advisory Council *AHMAC information on regulatory assessment criteria and process for adding new professions to the National Registration and Accreditation Scheme for the health professions*.⁵⁶

As Health Ministers are responsible for health services, and with sonographers solely performing their role within health care services, regulation of sonographers falls only under their jurisdiction.

There is a significant risk of harm to the health and safety of the public by the activities of a sonographer.

A sonographer's activities are to perform an ultrasound scan viewing the entire structure of the organ/s, to recognise if something is abnormal and take the appropriate representative images so that an accurate diagnosis can be reported by a medical practitioner. They work autonomously, and the scans are often performed with only the patient, in an intimate setting, and with some procedures classed as intrusive. The competence and expertise of the sonographer directly affect the outcome of the ultrasound examination.

In implementing the Health Practitioner Regulation National Law (2009), AHMAC identified 13 high risk activities or procedures to assess health professions against for inclusion in the NRAS. When assessed by the working group against the same high risk activities or procedures, the sonographer scope of practice includes 8 of the 13 activities or procedures, which is higher or comparable to two-thirds of the professions already regulated under the NRAS.

The activities of a sonographer can cause physical, emotional and economic harm to patients. The impact of these risks can be short- and long-term, as well as extending to patients' families and carers, and other medical professionals and employees.

The risks of harm to the public health and safety include:

1. delayed treatment, more advanced and complex medical conditions, additional costs, unnecessary surgery or treatment, reduced quality of life, significant physical and emotional harm, and ultimately death due to missed or misdiagnosis
2. personal injury, harm or patient distress from misuse of the transducer (or probe) and other failures in professional practice
3. physical harm and immediate and ongoing emotional harm due to unprofessional behaviour, including inappropriate, unethical or illegal conduct
4. the risk of death or significant physical and emotional harm from a failure to act appropriately, such as providing timely and appropriate communication of urgent or unexpected findings
5. avoidable infection of individuals and between patients and the public from a failure to follow infection control standards and procedures
6. immediate and lifelong injury and disability caused by biological effects due to misuse of the technology.

An example of the impact a sonographer's activities can have on a patient is the case where a sonographer didn't undertake proper protocol and incorrectly identified a viable embryo – failing to detect the ectopic pregnancy, which is a life-threatening condition.

This caused a missed diagnosis and failure to deploy early treatment options and other necessary medical responses. The patient required a potentially avoidable hysterectomy, causing significant distress as the patient had planned to have children in the future.

In this situation, there was a high risk of death to the patient and permanent physical damage due to surgery that could have been avoided. The patient also suffered significant emotional trauma due to loss of the ability to procreate.

Including sonographers in the NRAS would reduce or remove this and other risks to the public. Described minimum practice standards would be nationally enforceable by the MRPBA. Where sonographers fail to meet these expectations, such as in the example, there would be a nationally consistent process for receiving notification about the issue. Increased structure, visibility and rigour would be applied under the NRAS to assess the issue, with the MRPBA able to implement remedies – such as supervised practice or additional training – when action is required to protect patients.

This would ensure that a sonographer who fails to meet the minimum standards would not continue to place patients at risk until their practice has been corrected and demonstrated to be safe.

There would also be described consequences for failure to act appropriately, together with minimum recency of practice requirements and mandatory reporting requirements. There would be increased public visibility, particularly for employers via the national public register of practitioners, which would identify practitioners with conditions, undertakings and reprimands on their registration. This will prevent sonographers trying to avoid accountability by moving between workplaces or states.

Existing regulatory and other mechanisms fail to address health and safety issues.

Currently there are no nationally enforceable standards of practice that set the minimum expectations of ultrasound examinations performed by Australian sonographers, putting the public's health and safety at risk.

The only existing system that comes close to providing an effective system of public protection is the regulation system and the processes administered by the NRAS Medical Radiation Practice Board of Australia (MRPBA) – however, this only applies to the 24.5% of sonographers who are also registered medical radiation practitioners.

The National Code of Conduct for Health Care Workers (the National Code) fails to adequately address most of the risks associated with the activities of a sonographer. It primarily focuses on a professional's conduct. There is also the low ability, and inconsistency across Australia, of the National Code to apply and manage targeted remedies (e.g. clinical supervision requirements) that are effective in addressing poor adherence to standards of practice.

There is no self-regulation of sonographers. Even considering all 'mechanisms' that are in place for sonographers, four of the National Alliance of Self Regulating Health Professions (NASRHP) standards that are required to be met to establish a profession as self-regulating, don't exist for sonography.

Credentialing organisations such as Australian Sonographer Accreditation Registry (ASAR) and Australian Society of Medical Imaging and Radiation Therapy (ASMIRT) do not provide any regulatory function, do not enforce any standards, nor do they take complaints. For Medicare, the ASAR maintains a list of sonographers who have completed an ASAR accredited course of study and who complete and maintain continuous professional development.

The peak bodies are purely membership associations. They do not have any power to impose minimum standards or stop a sonographer from practising.

Regulation under the existing MRPBA is possible and the most practical form of regulation for sonography.

The sonographer profession is well-placed for inclusion in the NRAS. It is well defined and already has a teachable and testable body of knowledge, with described functional competencies that are used to accredit education programs to become a sonographer.

In December 2021 there were 7,022 sonographers practising across Australia, already paying an annual professional fee and undertaking, on average, a minimum of 20 hours of continuing professional development per year.

There is no danger of over-regulation as there is only one occupational title, *sonographer*, that applies to the profession, and which, as a protected title, could be applied as a professional division of the MRPBA. Importantly, whilst ultrasound is used by other professions, regulation of the sonographer profession would not limit or regulate who can and can't perform ultrasound scans and will not impact on other professionals who use ultrasound in their scope of practice.

The sonographer profession is already organised through accreditation with ASAR, and most accredited sonographers are members of at least one peak body, namely ASA, ASUM or ASMIRT.

Sonographers have expressed their support for regulation and are willing to contribute to its cost through an annual fee. The profession already pays a yearly fee to be on the ASAR list of qualified sonographers.

There is no other solution that would practically achieve the protection of the public interest in the same way.

Self-regulation is not practical. It would fail to adequately address the risks associated with poor sonographer practice and conduct, and none of the peak bodies has any power to compel a sonographer to action. Notwithstanding, the systems in place for sonography do not meet the NASRHP minimum requirements of a self-regulating profession, and no one organisation is anywhere close to being able to take on a self-regulation role.

Likewise enabling ASAR to uphold sonographer regulation is not practical and not an effective solution due to it being constrained by Medicare legislation and the significant disconnect that currently exists between ASAR's functions and regulatory activities.

The profession and the wider medical industry are fully supportive of the NRAS model of regulation under the MRPBA with letters of support obtained across the health care industry.

This model of regulation is used in New Zealand and Canada, where all medical imaging professions are regulated under one board.

By adding sonography to an existing board, the benefits to the public of regulation under NRAS clearly outweigh any potential negative impacts.

Including sonographers in the NRAS will significantly benefit the public by ensuring that only sonographers who are suitably trained and qualified to practice competently and ethically, with a recency of practice, are registered. There will be increased public protections with mandatory notifications and nationally consistent management of complaints and concerns raised about the health, performance and conduct of individual sonographers.

The MRPBA has a variety of remedies they can enforce when action is required, such as additional supervision or additional training, to address sonographer practice issues that are creating a risk of harm to the public. The public will also benefit from increased visibility, with a single public register of practitioners, that would identify those with conditions, undertakings and reprimands on their registration, and a separate list of deregistered sonographers.

These significant benefits to the public's safety and protection easily outweigh any potential negative impacts to sonographers, the marketplace, governments and the national health system.

The possible cost and administrative impacts to sonographers, consumers, employers and other users of medical ultrasound are well understood. However, the benefits of this change are expected to be greater than any negative impacts, with some stakeholders positively impacted.

Governments may experience some cost and administrative impacts, but adding sonographers to an existing board will avoid a significant start-up cost of around \$1.6 million. This change would also shift the cost burden of complaints handling from most states and territories back to the profession, meaning that most states and territories would no longer need to pay for this.

Regulating the remaining 75.5% of sonographers under the MRPBA will increase the total number of registered medical radiation health practitioners by 30%, contributing to the MRPBA's self-sufficiency and sustainability to perform their regulatory functions.

Furthermore, including sonographers in the NRAS is expected to enhance the public's confidence in health care and health care regulation.

Recommendation/Next steps

The public overwhelmingly supports the regulation of sonographers, with most citing a less accurate diagnosis and patient safety as the leading causes for why they should be regulated, with 93% believing sonographers were already regulated and supporting sonographers to become regulated. In addition, 82% are concerned that sonographers are not already regulated. Health Ministers have a real opportunity to protect the public health and safety by adding a new professional title to an existing board under the NRAS.

The sonographer profession, represented by the Working Group for Sonographer Regulation, requests Health Ministers protect the public by agreeing that:

- adding the sonographer profession to the existing Medical Radiation Practice Board of Australia is needed to protect the public interest

AND

- refer the submission to the Health Chief Executives Forum for preliminary assessment.

WHY REGULATION IS NEEDED

UNDERSTANDING THE PATIENT'S EXPERIENCE

PATIENT EXPERIENCE 1: DELAYED DIAGNOSIS OF BREAST CANCER

Background

Jenny from Victoria had been feeling more tired than usual and recently discovered a small lump in her right breast. Feeling concerned, she immediately made an appointment with her GP. Knowing there was a history of breast cancer in her family, her GP promptly referred her for an ultrasound examination.

Jenny attended a private clinic where a sonographer undertook her exam.

The exam did not take as long as Jenny had expected, and seemed quite rushed. Jenny was surprised that the sonographer did not appear to spend much time investigating the area where the lump was.

However, she put her concerns aside and returned to her GP who told her the results were clear, as the images taken indicated normal tissue. There was no sign of cancer. This news was a huge relief for Jenny.

Some months later Jenny still felt tired and the lump in her breast remained, and even seemed a little larger. She returned to her GP who recommended a repeat ultrasound. This time she went to another clinic where the sonographer undertaking the exam immediately identified a sizeable lump and was surprised it had not been picked up earlier.

Jenny returned to her GP to receive the devastating news of a suspected cancer diagnosis. She soon had the diagnosis confirmed by biopsy and commenced treatment. She was furious it was missed in the first exam and very concerned about the impact of this later diagnosis on her chance of overcoming it.

Scenario 1. Currently, with no sonographer regulation

Angry, Jenny contacted the first clinic to make a formal complaint. They suggested she email her complaint and assured her it would be forwarded to the appropriate person. After much discussion, they eventually agreed to provide Jenny with the sonographer's name. A few days later the clinic manager phoned her to say they were sorry to hear she felt that way.

Unsatisfied with the clinic's response, Jenny spoke to her GP who suggested she speak to AHPRA. AHPRA informed her that unless the sonographer was also a medical radiation practitioner registered under the Medical Radiation Practice Board, they were not able to assist. They suggested she contact the Victorian Health Complaints Commissioner. Feeling confused about how it's possible for someone to be regulated in one part of their job but not another, and how it applied to her situation, she decided to approach the Health Complaints Commissioner.

The Commissioner's office suggested she first contact the clinic. After hearing this had been unsuccessful and learning more details, they agreed to investigate her complaint. This process took some time to complete. To Jenny's frustration, the Commissioner ultimately determined there was insufficient evidence to demonstrate the sonographer breached their duty of care, and therefore no further action would be taken.

Jenny's only other option was to engage a lawyer. Exhausted by the diagnosis and the complaint process, Jenny decided not to pursue this option knowing it could be lengthy and costly.

Her complaint remains unresolved and she's not aware of any action taken against the sonographer.

The sonographer continues to work with no requirements or restrictions on their practice, and no changes made in the way they undertake breast scans.

Scenario 2. Sonographer self-regulation through an organisation that sets professional standards used for certification and complaint handling

Angry, Jenny contacted the first clinic to make a formal complaint. They suggested she email her complaint and assured her it would be forwarded to the appropriate person. After much discussion, they eventually agreed to provide Jenny with the sonographer's name. A few days later the clinic manager phoned her to say they were sorry to hear she felt that way and that if she wanted to take the issue further, she could try contacting the organisation that represents sonographers.

The organisation informed Jenny that yes, they do receive and manage complaints about sonographers, but could only assist if the sonographer was a member. And while they proudly represent most of the industry, they do not represent all sonographers as membership is voluntary.

Jenny provided the sonographer's details and the name of the clinic where they worked, but unfortunately, a search revealed the sonographer in question was not a member. As such, the organisation advised Jenny to contact the Victorian Health Complaints Commissioner.

After learning more details and confirming she had already tried to resolve the issue with the clinic and the sonographer organisation, the Commissioner's office agreed to investigate her complaint. This process took some time. And to Jenny's frustration, the Commissioner ultimately determined there was insufficient evidence to indicate the sonographer breached their duty of care, and therefore no further action would be taken.

Jenny's last option was to engage a lawyer. However, at this point Jenny was exhausted by her cancer treatment and the complaint process, and decided not to pursue this option knowing it could be lengthy and costly.

Her complaint remains unresolved and she's not aware of any action taken against the sonographer.

The sonographer continues to work with no requirements or restrictions on their practice, and no changes made in the way they undertake breast scans.

Scenario 3. Sonographer regulation under NRAS

Angry about her poor sonographer experience, Jenny contacted the first clinic to make a formal complaint. The clinic told her she'd need to send her complaint via email. Other than an automated acknowledgement of receipt, she received no other communication.

Unhappy, Jenny decided to contact AHPRA who assisted her in submitting a complaint. She found information on the AHPRA website outlining the process and what to expect. She was pleased to learn that regardless of the outcome, her complaint would be assessed and recorded in a central system.

As Jenny's complaint centred around her belief the sonographer failed to examine her properly and may lack the skill or knowledge to take appropriate images for the radiologist, AHPRA agreed to undertake an investigation. AHPRA explained that because sonographers are a registered profession under the MRPBA, this part of the process would be undertaken by the MRPBA.

MRPBA referred the case to its performance and professional standards panel where practitioners familiar with breast ultrasound exams were able to assess whether the sonographer completed the exam in line with the expected guidelines and standards.

Ultimately, MRPBA decided the sonographer's skills were below standard. In response, they decided the sonographer must complete a relevant course of training and practice under the supervision of a senior sonographer for six months. These conditions were listed against the sonographer's record on the public register. AHPRA monitored the practitioner during this period to ensure the conditions were met.

Jenny appreciated being kept up to date throughout the process and being informed of the final decision and reasoning behind it.

Because of the outcome of Jenny's complaint, the clinic where the sonographer was employed decided to undertake an audit of all examinations completed by this sonographer in the past three months and rescanned any patients where required. They decided to use the case as a teaching example at one of their upcoming professional development sessions.

While still upset by the delayed diagnosis, Jenny felt satisfied her concerns were recognised and that action was taken to ensure that what happened to her does not happen to someone else.

PATIENT EXPERIENCE 2: POOR COMMUNICATION RAISES CONCERNS ABOUT UNPROFESSIONAL CONDUCT

Background

Tom, a young man who lives in Tasmania, approached his GP concerned about pain and swelling in his calf. His GP referred him to an ultrasound clinic to rule out serious concerns such as DVT.

At the ultrasound clinic, the sonographer who undertook the exam barely spoke and when they did used a gruff manner. Tom was nervous and had questions, but was reluctant to ask in case he annoyed the sonographer.

Tom had never had an ultrasound before and had little idea what to expect but imagined the scan would focus on his lower leg, as that was where the problem was.

As such, Tom was very surprised to be asked to undress to his underwear and confused when the exam began with the sonographer scanning the groin area for what seemed like a long time, without explanation, before continuing to his lower leg.

Tom felt very uncomfortable but didn't say anything, hoping it would be over quickly so he could leave.

Soon after, Tom's GP contacted him to confirm DVT had been identified and he began treatment. Tom's symptoms soon improved.

The following week Tom required a follow-up scan to confirm the DVT had resolved. He chose a different clinic. This time the sonographer spent time explaining what would happen during the exam and asked Tom if he had any questions. Tom learnt that it was usual for investigations of DVTs to involve a short period of scanning near the groin as that is where the blood vessel begins. The sonographer completed the exam in a professional manner explaining the process as they went.

Tom was pleased the DVT was resolved, but still felt unsettled by his earlier experience.

In the weeks that followed he talked to his friends and family, mentioning how uncomfortable he'd felt and how he thought what had happened was not appropriate. Tom decided he wanted to make a complaint.

Scenario 1. Currently, with no sonographer regulation

Tom's family encouraged him to contact the Health Complaints Commissioner in Tasmania. The Commissioner's office told Tom he was able to submit a complaint about the sonographer but clarified that they do not currently have any disciplinary powers to take action against unregulated professions like sonographers. However, they said many complaints can be resolved quickly and informally with the service provider and suggested he try to contact the clinic.

Tom contacted the clinic to convey his concerns, and was pleased to receive a follow-up phone call a few days later. The manager was understanding and said it was not the first time a complaint had been made about this sonographer and they would look into it. Feeling confident his complaint was understood, Tom took no further action. However, Tom's confidence faded as he received no further contact from the clinic and was unsure if anything had actually been done.

Some months later Tom needed an ultrasound for an unrelated issue, and returned to the second clinic where he was comfortable. On his way out however, he was shocked to see the sonographer in question, now working at this clinic. He contacted the first clinic who told him that the sonographer had been dismissed and no longer worked with them.

Tom was angry and wondered whether the new clinic was aware of the previous concerns raised and how often this kind of thing happens. Feeling despondent and unsure what else to do, Tom took no further action.

The sonographer continues to practice at the new clinic, where the employer is unlikely to become aware of any concerns until more patients are upset and make a complaint.

The sonographer was dual qualified and had been maintaining AHPRA registration as a medical radiation practitioner under the MRPBA, as 25% of sonographers do. After being dismissed the sonographer decided to relinquish the registration, meaning this issue or any future issue in their sonographer practice could not be investigated by AHPRA.

Scenario 2. Sonographer self-regulation through an organisation that sets professional standards used for certification and complaint handling

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Tom contacted the clinic to convey his concerns, and was pleased to receive a follow-up phone call a few days later. The manager was understanding and said it was not the first time a complaint had been made about this sonographer and they would look into it. Feeling confident his complaint was understood, Tom took no further action. However, Tom's confidence faded as he received no further contact from the clinic and was unsure if anything had actually been done.

Tom's friend told him that there is an organisation responsible for sonographers and encouraged him to contact them to see if they could help. Tom did this and was happy to hear that the organisation could assist, as long as the sonographer was a member. All members are bound by the organisation's standards and code of ethics and could be expelled for serious breaches.

After confirming the sonographer was a member and that the issue related to a suspected code breach, the organisation worked with Tom to understand his concerns, before contacting the sonographer and their workplace to investigate whether the concerns were valid.

The process took some time but ultimately, they decided that the sonographer had undertaken the exam correctly, however their poor communication skills and failure to obtain verbal consent had resulted in significant distress to the patient. In response, they recommended that the workplace require the sonographer to complete additional training in communicating with patients.

Tom was happy his complaint had been acknowledged.

However, the sonographer resigned from their workplace to avoid completing additional training and found work elsewhere. Other than remove the sonographer from their membership, the sonographer organisation was not able to enforce their recommendations, and pre-employment checks at the new workplace were at the discretion of the employer.

Scenario 3. Sonographer regulation under NRAS

Angry about his poor sonographer experience, Tom contacted the first clinic to make a formal complaint. The clinic asked him to submit his complaint by email. He received correspondence thanking him for raising the issue and stating they would consider it. In addition, if he wished to take the complaint further, he would need to contact AHPRA - the national body that manages complaints about regulated health care professionals.

AHPRA helped Tom clarify and submit his complaint. As Tom was raising concerns about unprofessional behaviour, and not simply seeking an apology or explanation, AHPRA agreed to undertake an investigation in partnership with the MRPBA, the national board responsible for regulating the sonography profession.

During the investigation the MRPBA sought advice from a panel of professionals familiar with sonography practice and examination guidelines, and referenced code of conduct requirements around communicating with patients and obtaining consent.

Despite the potentially serious questions raised about the sonographer's unprofessional behaviour, it was decided the sonographer had completed the exam in line with practice guidelines and had taken appropriate images for the reporting medical practitioner to make a correct diagnosis of DVT. However, the sonographer lacked communication skills and failed to explain the procedure and gain verbal consent to undertake the exam. This failure led to emotional distress and harm to the patient which could have been avoided.

The sonographer was given a caution, was required to undertake training in communicating with patients, and to have their work supervised for a period of six months. These enforceable conditions were listed against the sonographer's record on the public register. AHPRA continued to monitor the practitioner during this period to ensure the conditions were met, even if they moved workplaces.

AHPRA kept in contact with Tom during the process and ensured he was informed of the final decision and reasoning behind it.

Tom was pleased his concerns were validated and felt satisfied action was taken to ensure the same thing did not happen to someone else. He agreed that the sonographer's main problem was poor communication and was happy to know changes were made to improve their practice while not impacting their ability to work.

PATIENT EXPERIENCE 3: REPEATED UNDERPERFORMANCE AND CLINICAL ERRORS GO UNRESOLVED UNTIL SIGNIFICANT HARM OCCURS

Background

Sarah has worked as a sonographer for many years, mainly in obstetrics and gynaecology. Recently, she has started to question the skills and performance of a colleague following several apparent errors that have occurred at the hospital where she works, including a missed twin pregnancy. She has also noticed this sonographer regularly completes scans much quicker than anyone else.

The sonographer in question has come from interstate and appears to have a solid work history. They are confident, outgoing, and well-liked by staff. They also work at a private clinic two days a week.

Sarah approached her colleagues to see if they had similar concerns, but most did not work closely with the sonographer and couldn't comment.

Still concerned, Sarah tried to informally review some of the sonographer's work. This was not easy in a short-staffed, busy department. But she was pleased she did, as she found multiple concerns including what she believed were measurement errors, poor quality images, an incomplete worksheet, and a failure to note relevant family history. She believed the sonographer displayed a lack of skill and poor attention to detail.

She wasn't aware of any complaints received by the hospital, but it's likely the parents weren't even aware errors had been made or things missed.

Her concerns weighed heavily, as professional failures like these had the potential to put the baby and the mother at serious risk of harm if they led to a missed or misdiagnosis. Sarah felt it was only a matter of time before something significant occurred.

Scenario 1. Currently, with no sonographer regulation

Sarah was unsure if her concerns met the benchmark for reporting of unregistered workers under the National Code of Conduct for Health Care Workers, or whether a complaint by a non-treating practitioner such as herself would be considered, so she decided to raise it with her employer first.

Sarah approached her manager to discuss her concerns and suggest the sonographer's work be reviewed. However, the manager quickly dismissed the issue, highlighting that no complaints had been received. The manager spoke highly of the sonographer and praised their ability to complete scans quickly. Sarah left feeling deflated and anxious.

Reluctantly, Sarah decided she'd done all she could and was worried she may face repercussions if she continued pursuing the issue.

However, two months later her fears were realised when a baby dies soon after birth. The distraught parents demand answers.

Given the death, the hospital commenced a formal internal review which took many weeks. The review identified the baby had a serious heart defect. However, if known, the defect could have been corrected through surgery as soon as the baby was born. The sonographer in question had undertaken all the ultrasounds during pregnancy, and had not raised any concerns.

The final report indicated that an experienced sonographer should have identified the warning signs during the first ultrasound examination, and if not then, certainly should have done so at the second when the signs were obvious. As such, hospital management determined the sonographer must complete additional training and recommended they be supervised for an extended period.

However, unhappy with the outcome of the review and the restrictions on their work, the sonographer resigned and instead took on additional hours at the private clinic where they continue to work.

There were no other actions taken against the sonographer or changes made in the department where the sonographer had been working.

The parents were left feeling devastated over their loss and extremely upset knowing their child's death could have been prevented.

Scenario 2. Sonographer self-regulation through an organisation that sets professional standards used for certification and complaint handling

Sarah approached her manager to discuss her concerns and suggest the sonographer's work be reviewed. However, the manager quickly dismissed the issue, highlighting that no complaints had been received. The manager spoke highly of the sonographer and praised their ability to complete scans quickly. Sarah left feeling deflated and anxious.

Given the lack of support in her workplace, Sarah decided to contact the organisation responsible for sonographers. She is a member and believed the sonographer in question is too.

The organisation agreed to make enquiries and contacted her employer to investigate whether the concerns are valid. However, her employer stated they don't have any concerns and if they did, they have their own internal processes in place to manage them. As a result, the organisation simply made a note of the concerns raised by Sarah at this time.

Two months later Sarah's fears are realised when a baby dies soon after birth. The distraught parents demand answers.

Given the death, the hospital commenced a formal internal review which took many weeks to complete.

The review identified the baby had a serious heart defect. However, if known, the defect could have been corrected through surgery as soon as the baby was born. The sonographer in question had undertaken all the ultrasounds during pregnancy, and had not raised any concerns.

The final report states that an experienced sonographer should have identified the warning signs during the first ultrasound examination, and if not then, certainly should have done so at the second when the signs were obvious. As such, hospital management determined the sonographer must complete additional training and recommended they be supervised for an extended period.

The organisation responsible for sonographers was provided with the outcome of the hospital review which stated the sonographer was not meeting minimum standards, and their poor-quality work potentially contributed to an avoidable death. With this information, the organisation decided the sonographer in question must complete additional training to retain their membership.

However, unhappy with the outcome of the hospital review and the organisation's decision, the sonographer decided to resign from their job at the hospital and relinquish their membership, and continues working in private practice where membership is not mandatory for employment.

There were no other actions taken against the sonographer, or changes made in the department where the sonographer had been working.

The parents were left feeling devastated over their loss and extremely upset knowing their child's death was preventable.

Scenario 3. Sonographer regulation under NRAS

As a regulated health professional under AHPRA, Sarah was aware of the standard of care expected of sonographers, and her own obligations under the mandatory notification requirements to raise serious concerns about risks that are not being adequately addressed in the workplace.

Sarah first approached her manager to discuss her concerns and suggest the sonographer's work be reviewed. However, the manager quickly dismissed the issue, highlighting that no complaints had been made. The manager spoke highly of the sonographer and praised their ability to complete scans quickly. Sarah left feeling deflated and anxious.

Having been unsuccessful in resolving it with her employer, she felt obligated to report this risk to AHPRA. Sarah submitted her notification online, stating she believed the sonographer was performing well below standard and was making repeated clinical errors, and that this represented a significant risk of harm to patients.

AHPRA promptly assessed it, and were satisfied there was enough information to proceed. As sonographers are registered under the MRPBA, the investigation was referred to them, and was completed in less than two months.

As part of the investigation the sonographer underwent a performance assessment where among other things they conducted an audit of clinical records, observed the sonographer, and spoke to colleagues and managers. Under regulation, the workplace was required to engage with the investigation process.

AHPRA and MRPBA ultimately determined that the sonographer's performance was well below standard. As a result, they required the sonographer to have their practice supervised for a period of 12 months and undergo additional training in obstetric examinations. They also received a written warning. This information was reflected on the sonographer's record on the public register.

AHPRA monitored the sonographer to ensure the conditions were met, and that the quality of supervision was appropriate. AHPRA kept Sarah updated and informed her of the outcome of the investigation.

During the period of supervision, a significant heart defect that had been missed by the sonographer in a routine pregnancy scan was identified by the supervising sonographer. This heart defect could have been fatal at birth without treatment. As a result, the mother's health care team prepared for the child to receive corrective heart surgery immediately following birth. The surgery was successful and while the child requires some ongoing care, it is otherwise healthy and happy. The parents were grateful for the early identification of this significant health issue.

Sarah was relieved her concerns were acknowledged and action was taken to ensure this didn't happen again. She felt the clear guidelines around minimum practice standards and her obligations under mandatory reporting made it easier for her to raise her concerns.

She was also pleased that the conditions on the sonographer applied regardless of where they worked, and that the information would remain on their record as incentive to maintain the quality of their work. Finally, she was pleased that there was a way for them to continue working while receiving the support needed to bring their practice up to standard.

INTRODUCTION

The health and safety of Australians is at risk because sonographers are not regulated under the National Registration and Accreditation Scheme (NRAS).

A sonographer is a highly skilled medical imaging allied health professional who operates an ultrasound machine to perform the majority of diagnostic medical ultrasound examinations, on behalf of a medical practitioner, and is often the first diagnostic imaging service accessed by patients. Patients are typically referred for an ultrasound examination to assist with diagnosis and management of a range of conditions from cancer to pregnancy. If something is missed, it can have a disastrous impact for patients, including avoidable permanent disability and death.

Medicare statistics indicate that ultrasound is the most commonly accessed diagnostic imaging service in Australia.¹ Ultrasound is 'operator dependent', with the sonographer angling the ultrasound transducer (or probe) into the exact position to ensure the correct images are taken for a patient's diagnosis. Therefore, the competence and the expertise of the sonographer are critical to the patient's outcome.

In December 2021, there were 7,022 medical sonographers and 1,042 student sonographers in Australia with the majority of sonographers (72%) employed in the private sector and (25%) in public hospitals.

Since 2011, the demand for Medicare Benefits Scheme (MBS) medical diagnostic ultrasound services has grown at an average of 6.2% per year. The number of Medicare-funded ultrasound services accessed by Australians has increased 82% in the last ten years. In 2020/21, 12.10 million Medicare-funded diagnostic ultrasound examinations were undertaken, primarily performed by sonographers.¹

Modelling by the Australasian Sonographers Association (ASA) predicts that this growth in patients accessing ultrasound is expected to continue to increase at this rate, if not exponentially, and that the sonographer workforce will grow exponentially to meet this demand for ultrasound services. As such, more patients will be receiving health services from increasing numbers of sonographers, and with an increase in the number of patient interactions, comes an increased likelihood and occurrence of patient harm from a sonographer's practice.

As the outcome of the ultrasound examination relies on the expertise of the sonographer, these skills are recognised by Medicare, with only diagnostic ultrasound services provided by medical practitioners and sonographers on their behalf, funded under the MBS. Yet sonographers are one of the only diagnostic imaging professions not regulated by the NRAS.

Without national regulation, there are no nationally enforceable standards of practice that set the minimum expectations of ultrasound examinations performed by Australian sonographers, putting the public's health and safety at risk. Where a sonographer fails to produce quality images or identify pathologies, there are no enforceable measures of the quality of ultrasound examinations that sonographers provide. In addition, there are no recency of practice requirements and the complaints handling for sonographers is also currently inconsistent, fragmented and ineffectual.

In recent market research², 93% of those surveyed believed sonographers were already regulated. In addition, 82% are concerned that sonographers are not already regulated. The public overwhelmingly supports the regulation of sonographers, with most citing a less accurate diagnosis and patient safety as the leading causes for why they should be regulated.

While knowledge regarding the lack of professional regulation does not deter individuals from seeking an ultrasound, individuals are more likely to seek a second opinion (53%) or question the diagnostic quality of results (53%). This is evidenced by national research undertaken by Survey Matters on behalf of the ASA in 2019 from 846 respondents.²

The NRAS was established in 2010. Initially, ten health professions were included, with a further four national boards established from 2012, including a medical radiation practitioners board.

As part of the process seeking the establishment of a medical radiation practitioners board, in October 2010, the Council of Registration Boards for Medical Radiation Practitioners released '*A practical approach to the regulation of sonographers*'.³ This submission to the Australian Health Workforce Ministerial Council sought to include sonographers in the National Register of Medical Radiation Practitioners. However, at this time the sonographer profession was requesting national regulation with an independent Sonography Board of Australia.

Following engagement with the AHMAC Health Workforce Principal Committee (HWPC) in early 2011, the Australasian Society for Ultrasound in Medicine (ASUM) and the Australasian Sonographers Association (ASA) produced the document '*ASA Submission – Formation of the Sonography Board of Australia*',⁴ which was submitted to the HWPC in August 2011. However, at this time there was also a Senate Inquiry into the implementation and administration of the NRAS,⁵ and other parallel government work on regulation options for health professions⁶ that were the focus of AHMAC.

Subsequently, in 2012, the MRPBA was implemented without the inclusion of the sonographer profession. Due to the shifting policy space at that time, there was also a lack of industry consensus on the most appropriate form of regulation of the profession to protect the public.

Since then, the industry has assessed regulation alternatives and has come to a unified agreement that the sonographer profession should be added to the list of medical imaging professions regulated by the MRPBA, which has not previously been requested by the industry.

In December 2018, a formal industry working group was established to develop this submission. This group became known as the Working Group for Sonographer Regulation, which is composed of the Australasian Sonographers Association (ASA), the Australasian Society for Ultrasound in Medicine (ASUM), the Australian Sonographer Accreditation Registry (ASAR) and a sonographer representative.

This submission has been prepared for Australian Health Ministers by responding to the six criteria specified and explained in the *AHMAC information on regulatory assessment criteria and process for adding new professions to the National Registration and Accreditation Scheme for the health professions*,⁵⁶ supported by evidence and reference materials. The six criteria are:

- Is it appropriate for Health Ministers to exercise responsibility for regulating the occupation in question, or does the occupation more appropriately fall within the domain of another Ministry?
- Do the activities of the occupation pose a significant risk of harm to the health and safety of the public?
- Do existing regulatory or other mechanisms fail to address health and safety issues?
- Is regulation possible to implement for the occupation in question?
- Is regulation practical to implement for the occupation in question?
- Do the benefits to the public of regulation clearly outweigh the potential negative impact of such regulation?

The submission highlights the significant risk of harm to the public from a sonographer's activities and that regulating the sonography profession by adding the remainder of the profession to the existing board – the MRPBA – would protect the public by ensuring that only suitably trained and qualified practitioners are registered.

AHMAC CRITERION 1:

It is appropriate for Health Ministers to exercise responsibility for regulation of the occupation in question, or does the occupation more appropriately fall within the domain of another Ministry?

Working Group Response – Executive Summary

Health Ministers are responsible for direction and oversight of the Department of Health, including the NRAS.

Sonographers are health professionals who deliver all their services to the public solely within the health care sector with no crossover with another ministry's portfolio. Therefore, it is appropriate for the Health Ministers to exercise responsibility for the regulation of the sonographer profession, which is also consistent with other medical imaging professions.

Response by the Working Group for Sonographer Regulation Against AHMAC Criterion 1

1.1 HEALTH MINISTERS ARE SOLELY RESPONSIBLE FOR DECISIONS ABOUT SONOGRAPHER REGULATION

Health Ministers are responsible for protecting and promoting public health. This includes responsibility for direction and oversight of the workforce to the delivery of health services in their jurisdiction. Collectively, Health Ministers meet these responsibilities through determining which health professions are included in the National Registration and Accreditation Scheme (NRAS).

The sonographer profession conducts the majority of comprehensive medical diagnostic ultrasound examinations that are performed solely in public and private health care settings, including public and private hospitals, outpatient imaging practices and private specialist clinics.

Sonographer provided examinations are an essential function of many health care areas and departments, such as cardiology, obstetrics and gynaecology, vascular, musculoskeletal medicine and radiology.

Sonographers do not work in other sectors, such as aged care or community services, and therefore do not fall within the domain of other Ministers.

Other diagnostic imaging professions are regulated under the NRAS Medical Radiation Practice Board of Australia (MRPBA). Significantly, 24.5% of sonographers are already registered with the MRPBA due to their first health profession, that they continue to practice, and therefore they are already under the Health Ministers' responsibilities.

Regulating sonographers with the other diagnostic imaging professions, with the MRPBA, is consistent with other Western countries where regulation is the responsibility of a state or national health department.

In New Zealand, the Ministry of Health appointed the Medical Radiation Technologists Board (MRTB) to oversee national regulation of sonographers, together with the other medical imaging professions, and this has been in place since before 2003.⁷ In Canada, a similar model of regulation is already in place in some provinces and is continuing to be rolled out across the country.

Health Ministers are singularly the most appropriate government representatives to exercise responsibility for the regulation of sonographers.

AHMAC CRITERION 2:

Do the activities of the occupation pose a significant risk of harm to the health and safety of the public?

Working Group Response – Executive Summary

A sonographer's activities are to perform an ultrasound scan viewing the entire structure of the organ/s, to recognise if something is abnormal and take the appropriate representative images for a medical practitioner to report an accurate diagnosis. Sonographers work autonomously and the scans are often performed with only the patient in an intimate setting and with some procedures classed as intrusive. The activities of a sonographer present a significant risk of physical, emotional and economic harm to patients. The impact of these risks can be short and long-term, as well as extending to patients' families and carers, and other medical professionals and employees.

The Australian Health Ministers' Advisory Council has identified 13 high risk activities or procedures undertaken by registered health professions to assess public risk. Based on a usual scope of practice for a sonographer, their activities fall under 8 of these 13 high risk activities or procedures. The nature and severity of the risks associated with the activities of sonographers are therefore higher or comparable to two-thirds of the professions already regulated under the NRAS.

The evidence shows significant risk of harm to the public's health and safety in two main areas (a) a failure of the sonographer, and (b) the use of equipment, materials and processes, and are highlighted below:

1. Failure to correctly identify an abnormality which can lead to a missed or misdiagnosis, such as incorrect cancer diagnosis, missed deep vein thrombosis (DVT), missed ectopic pregnancy or fetal anomaly. This can impact the patient through delayed treatment, more advanced and complex medical conditions, additional costs, unnecessary surgery or treatment, reduced quality of life, significant physical and emotional harm, and ultimately death.
2. Other failures in professional practice standards can include incompetence, other clinical error, or poor practice resulting in harm caused by a failure to produce quality diagnostic images, incomplete examinations or worksheet measurement errors and patient injury as a result of misuse of the transducer.
3. Unprofessional behaviour, including inappropriate, unethical or illegal conduct such as assault, conducting medically unnecessary examinations, failure to obtain consent, practising outside the scope of practice and practising under the influence of alcohol or drugs, all of which have the potential for significant immediate and ongoing emotional harm and potential physical harm.
4. Failure to act appropriately, such as providing timely and appropriate communication of urgent or unexpected findings to the reporting medical practitioner including poor or nil communication of the next steps with regard to an unexpected miscarriage, ectopic pregnancy or fetal distress leading to possible death, or significant physical and emotional harm.
5. Lack of infection control where there is a failure to follow infection control standards and procedures, which has the potential for significant infection resulting in physical and emotional harm, including to future patients.
6. Biological effects, including those resulting from heating, and newer, more powerful technology that can cause physical soft tissue injury during neonatal head ultrasounds and pose a risk of heating amniotic fluid in pregnancy ultrasounds and retinal eye damage during eye ultrasounds.

The NRAS will help limit or mitigate all these risks by introducing a range of requirements that are not currently in place for sonographers and that will ensure that the public receives safe and high quality ultrasound examinations performed by a sonographer.

NRAS protects the public's health and safety with:

- nationally enforceable minimum standards of practice and a nationally consistent mechanism to investigate complaints linked to registration and eligibility to practice
- recency of practice requirements ensuring that sonographers providing ultrasound examinations have current training and skills to provide appropriate health care
- expanded mandatory notification requirements strengthening patient protections to limit a sonographer's practice with authority to suspend or stop a sonographer from practice, including where sonographers resign or are dismissed and take up employment elsewhere
- a simplified, centralised complaints handling mechanism that will make it easier for the public to make a complaint
- assessment by a panel of their peers against described national minimum standards where their practice is questioned
- enforceable supervised training, conditions on practice, and other practice improvements to address competence deficiencies and improve the quality of a sonographer's practice
- authority to suspend or stop a sonographer from further practice.

Response by the Working Group for Sonographer Regulation Against AHMAC Criterion 2

Sonographers work autonomously with patients to capture representative medical ultrasound images, and if the sonographer fails to view the entire structure or recognise that something is not normal whilst performing the scan, diagnostic information can be missed. The reporting medical practitioner, who then interprets what the sonographer has provided, relies on the sonographer to capture the still image of the area of concern.

All sonographers often provide one-on-one examinations without others present. Unless a chaperone is requested, or a support person is present, the sonographer will typically be alone with the patient. Some examinations are intimate in nature, including breast and internal ultrasound examinations that require the patient to disrobe, and with an internal scan, a transducer being placed into a body cavity. Patients rely on the professional and ethical conduct of the sonographer to perform exams in a respectful and clinically appropriate manner, which includes obtaining consent, respecting privacy, minimising discomfort, and communicating effectively.

2.1 ASSESSMENT OF HIGH RISK ACTIVITIES UNDERTAKEN BY NRAS REGULATED PROFESSIONS COMPARED TO ACTIVITIES UNDERTAKEN BY SONOGRAPHERS

In implementing the Health Practitioner Regulation National Law (2009), the Australian Health Ministers' Advisory Council (AHMAC) identified 13 high risk activities or procedures undertaken by registered health professions, adapted from the *Regulated Health Professions Act 1991* (Ontario).

In 2013, the AHMAC undertook an assessment of all registered and unregistered health professions against the same criteria in the *Final report: Options for regulation of unregistered health practitioners*.⁸ (p. 90) This approach was also used in the 2016 *Final report: Options for regulation of paramedics*⁹ to assess the comparative risk of the paramedic profession when considering the inclusion of paramedicine in the NRAS.

Unfortunately, in the 2013 assessment of unregistered health professions, although the sonographer profession was listed in the table, there was no recorded assessment of the activities of a sonographer against these 13 high risk activities.

The table below provides the results of the previous AHMAC assessments of NRAS regulated professions, in addition to an assessment of the professional activities of a sonographer undertaken by the Working Group for Sonographer Regulation against these 13 high risk activities and procedures.

The assessment of a sonographer's activities against this framework is based on a usual scope of practice and determines that sonographers are involved in activities or procedures that fall within eight (8) of these 13 risk factors. Based on this AHMAC framework, the risk of harm to public health and safety from a sonographer's activities is equal to or higher than 11 of the 15 professions currently regulated under the NRAS.

Table 1: AHMAC assessment of the NRAS professions against 13 high risk activities or procedures; with assessment of sonographers completed by the industry working group

RISK FACTORS	REGULATED														UNREGULATED	
	ABORIGINAL & TORRES STRAIT ISLANDER HEALTH PRACTITIONERS	CHINESE MEDICINE PRACTITIONERS	CHIROPRACTORS	DENTAL PRACTITIONERS	MEDICAL PRACTITIONERS	MEDICAL RADIATION PRACTITIONERS	NURSES & MIDWIVES	OPTOMETRISTS	OCCUPATIONAL THERAPISTS	OSTEOPATHS	PARAMEDICS ^v	PHARMACISTS	PHYSIOTHERAPISTS	PODIATRISTS	PSYCHOLOGISTS	SONOGRAPHERS
1. Putting an instrument, hand or finger into a body cavity ⁱ	X	X		X	X		X				X		X			X
2. Manipulation of the spine ⁱⁱ		X	X		X					X			X			
3. Application of a hazardous form of energy ⁱⁱⁱ radiation				X	X	X	X		X				X			X *
4. Procedures below dermis, mucous membrane, in or below surface of cornea or teeth	X	X		X	X	X	X				X			X		X **
5. Prescribing a scheduled drug (incl. compounding), supervising that part of a pharmacy that dispenses scheduled drugs	X	X		X	X		X	X			X	X		X		
6. Administering a scheduled drug or substance by injection	X	X		X	X	X	X				X			X		X **
7. Supplying substances for ingestion	X	X			X		X				X	X				X ***
8. Managing labour or delivering a baby		X			X		X				X					
9. Undertaking psychological interventions to treat serious disorders or with potential for harm					X		X				X			X		
10. Setting or casting a fracture of a bone or reducing dislocation of a joint					X											
11. Primary care practitioners who see patients with or without a referral from a registered practitioner	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12. Treatment commonly occurs without others present ^{iv}	X	X	X		X	X	X	X	X	X	X		X	X	X	X
13. Patients commonly required to disrobe	X	X	X		X	X	X		X	X	X		X			X
TOTAL risk factors per profession	8	10	4	6	13	6	11	3	4	4	10	3	6	5	3	8

Notes

- i. Beyond the external ear canal, beyond the point in the nasal passages where they normally narrow, beyond the larynx, beyond the opening of the urethra, beyond the labia majora, beyond the anal verge, or into an artificial opening in the body.
- ii. Moving the joints of the cervical spine beyond the individual's usual physiological range of motion using a high velocity, low amplitude thrust.

- iii. Electricity for aversive conditioning, cardiac pacemaker therapy, cardioversion, defibrillation, electrocoagulation, electroconvulsive shock therapy, electromyography, fulguration, nerve conduction studies or transcutaneous cardiac pacing, low frequency electromagnetic waves/fields for magnetic resonance imaging and high frequency soundwaves for diagnostic ultrasound or lithotripsy.
- iv. Includes practitioners who practice solo or treat with no others present, such as medical specialists and practitioners who may be solely responsible for clinical care overnight or in a remote community.
- v. Paramedics included as per indicative assessment made in *Final report: Options for regulation of paramedics* (2016).

Notes: Sonographer risks

- * High frequency soundwaves for diagnostic ultrasound.
- ** This may include cannulation and administering contrast where these have been undertaken at the direction of a medical practitioner.
- *** This may include supplying oral sucrose as mild analgesic for paediatric patients to decrease pain and distress during minor procedures or supplying water to fill bladder as required for some procedures, undertaken under the guidance of the referring or reporting doctor.

2.2 THE KEY RISKS TO THE PATIENT

The activities of a sonographer present risk of physical, emotional and economic harm to patients: such as a failure to identify the abnormality that can lead to premature death from a missed cardiac condition, deep vein thrombosis (DVT), or missed cancer diagnosis; significant emotional distress from assault or a missed fetal defect; and a financial cost to the patient and government from unnecessary procedures, repeated examinations or treatment of more advanced medical conditions due to a delay in diagnosis; and lost productivity where individuals are delayed in their return to work due to the harm suffered. These threats to public health and safety can have short and long-term impacts that can extend to affect family and carers, as well as other medical professionals and employees. Negative experiences can also impact future decisions to undergo examinations or seek medical advice, leading to delayed diagnosis and treatment, and potentially more advanced medical conditions.

The activities of a sonographer that pose significant risks of harm to the public's health and safety can be grouped as resulting from (a) a failure of the sonographer, and (b) use of equipment, materials and processes, as outlined in Table 2 below.

Table 2: Key risks to the public health and safety – Nature, description, example, and impact

CAUSE: (A) FAILURE OF THE SONOGRAPHER			
NATURE	DESCRIPTION	EXAMPLE	IMPACT
Missed or misdiagnosis	Failure to correctly identify an abnormality that can lead to a false positive, false negative, missed or delayed diagnosis	<ul style="list-style-type: none"> • Incorrect or delayed cancer diagnosis • Missed DVT • Missed ectopic pregnancy • Missed fetal anomaly 	<ul style="list-style-type: none"> • Possible death, or significant physical and emotional harm • Delayed treatment • Reduced quality of life • Stress and harm of unnecessary surgery or treatment • Additional costs • Acute or chronic injury
Other failures in professional practice standards	Incompetence, other clinical error, or poor practice resulting in harm	<ul style="list-style-type: none"> • Failure to produce quality diagnostic images • Incomplete examination or worksheet • Measurement errors • Patient injury as a result of misuse of the transducer 	<ul style="list-style-type: none"> • Possible death, or significant physical and emotional harm • Delayed treatment • Reduced quality of life • Stress and harm of unnecessary surgery or treatment • Additional costs • Acute or chronic injury
Unprofessional behaviour	Failure in conduct – inappropriate, unethical or illegal conduct by a sonographer	<ul style="list-style-type: none"> • Assault • Conducting medically unnecessary examinations • Failure to obtain consent • Practising outside the scope of practice • Practising under the influence of alcohol or drugs 	<ul style="list-style-type: none"> • Potential for significant immediate and ongoing emotional harm and potential physical harm
Failure to act appropriately when encountering urgent or unexpected findings	Failure in practice when encountering urgent or unexpected findings e.g. the need for correct identification, and timely and appropriate communication of findings	<ul style="list-style-type: none"> • Failure to effectively use ultrasound in an emergency, for timely diagnosis and treatment, such as intussusception • Poor or nil communication of unexpected miscarriage or fetal defect and next steps 	<ul style="list-style-type: none"> • Possible death or significant physical and emotional harm
Lack of infection control	Failure to follow infection control standards and procedures, vendor product cleaning guidelines, and cleaning agent instruction sheets	<ul style="list-style-type: none"> • Lack of sterilisation of equipment for the use and reuse of transducers for internal examinations • Failure to follow standards for interventional procedures e.g. fine needle aspiration biopsies 	<ul style="list-style-type: none"> • Potential for significant infection and resulting physical and emotional harm, including to future patients. This includes ongoing health requirements
CAUSE: (B) USE OF EQUIPMENT, MATERIALS AND PROCESSES			
NATURE	DESCRIPTION	EXAMPLE	IMPACT
Biological effects[#]	Thermal and mechanical effects, including those resulting from heating and newer more powerful technology	<ul style="list-style-type: none"> • Soft tissue injury • Damage during neonatal head ultrasounds • Risk of heating amniotic fluid 	<ul style="list-style-type: none"> • Potential physical harm
Potential damage during higher risk procedures	Physical harm from the use of equipment, materials or processes during examinations of sensitive areas	<ul style="list-style-type: none"> • Possible retinal damage from eye ultrasound 	<ul style="list-style-type: none"> • Potential physical harm

[#] Biological effects refer to the potential adverse effects of ultrasound on human tissue. Thermal effects refer to the potential for ultrasound to raise tissue temperature as the sound energy is converted to heat, while mechanical effects refer to the potential for damage from the high energy produced by the oscillation of the sound wave on tissue (e.g. cavitation).

2.3 EVIDENCE OF RISK OF HARM FROM THE ACTIVITIES OF THE SONOGRAPHER PROFESSION

Despite a number of challenges in obtaining evidence on the harm caused by the activities of sonographers, the information that has been sourced and compiled provides an evidence base that there is significant risk of harm to the public, as detailed above in Table 2. Importantly, we expect that the patient impact described by the evidence significantly underestimates the current prevalence of patient harm caused by sonographers due to the following issues in collecting the evidence and poor data availability.

2.3.1 CHALLENGES IN COLLECTING EVIDENCE

Collecting evidence of the nature, severity and prevalence of risks associated with the activities of sonographers is challenging due to:

- complaints processes being inconsistent and confusing for patients, with the potential for complaints to go unreported¹⁰
- insufficient detail and inconsistent reporting of complaints, making it difficult to identify those involving sonographers
- having no centralised complaints mechanism, many complaints are directed to the employer. External access to employer complaints data is understandably limited, highly sensitive and not generally available
- a natural hesitancy for sonographers and other medical professionals to provide personal case examples, especially where anonymity may be difficult to maintain
- situations where patients make seemingly minor ‘customer service’ complaints that indicate a failure in the sonographer’s soft skills, for example, their ability to clearly communicate the process and what the patient can expect¹¹
- it being unethical to research potential biological risks of ultrasound on humans due to possible negative impacts. As such, the evidence is limited to findings from events that have occurred in practice and is otherwise restricted to animal-based studies, many of which are now old and lack consideration of newer, more powerful technology
- complaints being made against the reporting practitioner or the service centre, rather than an individual sonographer, due to the low level of public awareness of the sonography profession, with only 11% of the respondents to a recent public opinion survey able to name a sonographer as the health professional who conducted their ultrasound.²

2.3.2 SUMMARY OF EVIDENCE FINDINGS

The body of evidence of public harm caused by the activities of sonographers presented here includes evidence sourced from legal, media and coronial examples, insurance data, self-reported case examples from the last five years, and journal articles.

MISSED OR MISDIAGNOSIS

Missed or misdiagnosis has a high impact, which can have devastating consequences for the patient. A sonographer’s failure to correctly identify an abnormality for a medical practitioner to report can lead to a false positive, false negative, or a missed or delayed diagnosis. This can include an incorrect cancer diagnosis, missed DVT, missed ectopic pregnancy or fetal anomaly, or missed emergency diagnosis delaying treatment or surgery.

A significant amount of the information sourced and compiled reflects the patient harm and impact from missed or misdiagnosis. These include:

- 65% of the self-reported case examples collected, 95% of which occurred in the five years to 2020, including four examples resulting in death (see Appendix 1). Many of these examples appear to have not been investigated or effectively managed
- eight national, and a further four international legal, media and coronial examples, including cases of missed fetal anomalies and misdiagnosis of cancer (see Appendix 2)
- industry insurance data that indicates 15% of the cases gathered relate to missed fetal anomalies and a further 22% to

missed or misdiagnosis of other conditions¹²

- sixteen journal articles that highlight common themes, including missed or misdiagnosis in miscarriage or ectopic pregnancy, missed fetal anomalies, paediatric, appendiceal, musculoskeletal ultrasound, and DVT. These articles highlight the complexity of the diagnosis process, and the importance of quality standards and recency of practice in ensuring sonographers provide accurate, quality examinations (see Appendix 3).

A missed or misdiagnosis that occurs as a result of a sonographer's failure to identify an abnormality for a medical practitioner to report can seriously impact the patient through delayed treatment, more advanced and complex medical conditions, additional costs, unnecessary surgery or treatment, reduced quality of life, significant physical and emotional harm, and ultimately death.

CASE EXAMPLE

Missed ectopic pregnancy resulting in hysterectomy (Appendix 1, Case example 15)

Sonographer O didn't undertake proper protocol and incorrectly indicated a viable embryo – failing to detect the ectopic pregnancy, which is a life-threatening condition. The missed diagnosis resulted in delayed medical response and failure to deploy early treatment options. The patient required a hysterectomy, causing significant distress as the patient was planning on having children in the future.

Impact: The patient required surgery that could have been avoided and suffered significant emotional trauma due to the loss of the ability to procreate.

Issue: In this situation it is the workplace's responsibility to determine any remediation or action to address the sonographer's failure to adhere to the standards and protocols. Additionally, there is limited ability to understand if this is an isolated instance or a pattern of behaviour – particularly if the sonographer is working at multiple locations or moving between employers.

Solution: Under NRAS regulation there would be a national record of complaints and public register of practitioners, which include conditions or restrictions on practice against individual sonographers, holding them to account against enforceable standards. The MRPBA is also able to account for and audit any directed action – such as supervised practice or additional training – which are mechanisms not consistently available under the current arrangements.

OTHER FAILURES IN PROFESSIONAL PRACTICE STANDARDS

Often combined, or contributing to missed or misdiagnosis, is the risk of other sonographer failure in professional practice standards, such as a clinical error, poor practice resulting in harm, or displaying incompetence. These are high impact public risks as they can lead to ongoing physical and emotional harm and costs for patients and their families.

When a sonographer fails to produce sufficient or quality diagnostic images, makes measurement errors, or fails to complete an examination or worksheet for a medical practitioner, it has a high patient impact and can result in missed or misdiagnosis. Misuse of a transducer or other equipment can result in patient injury.

This patient harm is reflected in 42% of the case examples collected, which shows the impact of failure in professional practice standards, including failure to undertake examinations requested, measurement errors, producing poor quality images, and lack of anatomical knowledge (see Appendix 1).

CASE EXAMPLE

Cardiac anomalies missed in pregnancy exam (Appendix 1, Case example 41)

Poor quality ultrasound and failure to adhere to guidelines resulted in multiple cardiac abnormalities going undetected during a typical obstetric ultrasound.

This resulted in a missed diagnosis and postnatal complications for Patient AO and the baby, who required emergency surgery at birth which could have been avoided.

Impact: Significant distress for Patient AO, emergency postnatal complications due to unknown heart defects and high risk of infant death.

Issue: Similar to missed or misdiagnosis, in this situation it is the workplace's responsibility to determine any remediation or action to address the sonographer's failure to adhere to the standards and protocols. It is unlikely that the current complaints arrangements in most states and territories have the scope to investigate a complaint in this situation.

Solution: Under NRAS regulation, there would be a national record of complaints and public register of practitioners which include conditions or restrictions on practice against individual sonographers, holding them to account against enforceable standards. AHPRA state that they will investigate notifications about a serious one off concern that has not, or cannot be appropriately managed otherwise, or a concern that represents or may represent a pattern of behaviour that requires intervention. This may include a performance assessment if there is concern that the way they practice is unsatisfactory.⁷⁴ Again, the MRPBA is also able to account for and audit any directed action – such as supervised practice or additional training – mechanisms not currently available under the current arrangements.

UNPROFESSIONAL BEHAVIOUR

Unprofessional behaviour, such as inappropriate, unethical or illegal conduct is another high impact risk associated with the activities of a sonographer. A failure in this area can include unprofessional communication, practising outside their scope, failure to obtain consent, practising under the influence of alcohol or drugs, and assault.

Ultrasound examination requires the sonographer to be in the room alone with a patient for an extended period of time. This is important to recognise as ultrasound examinations are often undertaken one-on-one and can involve touching private body areas when inserting the ultrasound transducer into the body.

The evidence detailed in the appendices demonstrates the impact and prevalence of this type of risk and includes:

- 12% of the recent case examples collected, two of which relate to suggestions of inappropriate conduct during internal examinations (see Appendix 1)
- two recent Australian legal cases resulting in extensive media coverage where sonographers were charged with assault, Morrissey (2014) and Ishak (2016), as well as the notable earlier case involving Mobilio (1991) (see Appendix 2). There are other examples of media coverage involving assault charges relating to sonographers such as Gajjar (2020)
- industry insurance data that indicates 13% of the cases gathered relate to allegations of assault or patient concerns over conduct during internal examinations. A further 5% relate to other types of poor conduct
- information from health complaints entities¹⁴ that indicates 12% of complaints involving sonographers over the five years to 2019 related to alleged assault or misconduct, 14% involving attitude and manner, 3% involving uninformed consent, and 3% involving boundary violation
- anecdotal evidence from employers that suggests patient concerns over internal examinations, particularly pelvic exams, are a common theme of complaints received
- two journal articles and professional guidelines that point to the trend towards increasing allegations by patients, and provide recommendations and strategies to reduce risks, such as ensuring consent and effective communication. That employers are putting strategies in place, such as workplace guidelines on sexual boundaries and detailed consent forms for pelvic examinations, suggests the presence of significant risk in these areas (see Appendix 3).

Media and legal cases best demonstrate the potential for significant harm to patients, that is, serious emotional trauma. That these cases are ongoing and recent, indicates the critical need for regulation to mitigate further risk in this area.

CASE EXAMPLE

Nine assault charges involving five women over three years (Appendix 2, Media examples 12, 13, 14)

In December 2016, an accredited NSW sonographer, Samir Ishak, was found guilty of nine charges of aggravated indecent assault on five women, which occurred while he was working at multiple medical centres between 2011 and 2014. Concerns about this sonographer were initially raised with the NSW Health Care Complaints Commission in 2011. The accused remained a risk to patients for a further four years until the police became involved in 2015. The sonographer was ultimately found guilty of criminal charges five years after concerns were first raised.

Impact: Physical and emotional trauma resulting from assault occurring to five women.

Issue: The sonographer in question continued to practice and harm members of the public, even after multiple reports of misconduct were made to the Health Care Complaints Commission across a number of years. The Working Group asserts this is due to the high threshold for action applied for unregulated professions.

Solution: Even though in NSW the complaint would be triaged through the same governing body, under NRAS regulation the frameworks and powers to address unprofessional behaviour are more detailed and described and have mandatory notification around key areas, including concerns and complaints about professional and sexual misconduct. It is expected that under NRAS, such situations would be addressed with swift action such as a temporary suspension, with little to no possibility of a second misconduct being reported without patient protections being put in place.

FAILURE TO ACT APPROPRIATELY WHEN ENCOUNTERING URGENT OR UNEXPECTED FINDINGS

This area of risk reflects a failure in practice when encountering urgent or unexpected findings, such as the need for correct identification and timely and appropriate communication of findings to the reporting medical practitioner. In an emergency situation, when the reporting medical practitioner is not available on site or remotely, a sonographer may be responsible for communicating the findings that have not yet been verified by the reporting medical practitioner directly to the referring medical practitioner. This is most important in time-sensitive examinations and those involving potentially life-threatening conditions. The evidence collected, that demonstrates the impact and prevalence of this type of risk, includes:

- one case example where a sonographer noted a concern but did not pass this information on to the reporting practitioner (see Appendix 1, Case example 36)
- three journal articles highlighting risks resulting from poor reporting, ineffective communication, and role ambiguity. Sonographers have a duty to ensure continuity of care and have a pivotal role in the diagnosis and communication of findings, especially in urgent cases (see Appendix 3).

It is not possible to identify whether some of the cases gathered in insurance or health complaint entity data relate to this topic, given a lack of reported detail. However, themes such as communication and information and concerns over record keeping are apparent. Failure to act appropriately when encountering urgent or unexpected findings can contribute to inaccurate and untimely diagnoses. It can result in significant physical and emotional harm, including death.

CASE EXAMPLE

Key information not communicated to the reporting doctor (Appendix 1, Case example 36)

Following a cardiac examination, Sonographer AJ noted concern on the provisional report, but did not mention it to a doctor, as per the usual protocol. The patient was discharged from the hospital before the final report was finalised and a few days later collapsed and ultimately suffered serious brain damage.

Impact: This failure to act resulted in serious brain damage for the patient that was potentially avoidable.

Issue: Currently, outside of workplace protocol, there is no enforceable requirement for sonographers to communicate urgent or unexpected findings quickly and to the relevant people unless that sonographer happens to be one of the 24.5% of the workforce already regulated by the MRPBA.

Solution: Regulating all sonographers under the MRPBA would establish enforceable requirements of sonographers to communicate urgent or unexpected findings. Here, 'they must ensure this information is shared with, and understood by, the appropriate persons who may include the reporting medical specialist, the requesting health practitioner and/or other health practitioners, for the immediate and appropriate management of the patient/client'.¹⁵ The MRPBA also has powers to direct action where this described expectation is not met.

LACK OF INFECTION CONTROL

Infection protection and control is a fundamental aspect of a sonographer's scope of practice. Sonographers are expected to adhere to workplace infection control standards and procedures, vendor product cleaning guidelines and cleaning agent instruction sheets. Failure in this area can include lack of sterilisation of equipment for use and reuse of transducers for internal examinations, or failure to follow standards for interventional procedures e.g. when assisting with ultrasound-guided interventional procedures. The evidence detailed in the appendices demonstrates the impact and prevalence of this type of risk and includes:

- one case example collected and outlined below (see Appendix 1)
- four guidelines and industry publications demonstrating that this is a recognised area of risk and includes gels, reprocessing of transducers, and ultrasound-guided invasive procedures. The presence of well-established industry and manufacturer guidelines is in part evidence of this. The 2017 Clinical Bulletin by Nanosonics Australia, *Outbreaks and death caused by infections from ultrasound procedures*, provides evidence of alerts and publications on outbreaks and death from ultrasound procedures in Australia, UK, Canada and USA (see Appendix 3).

A lack of infection control can lead to significant infections, resulting in physical and emotional harm, including to future patients.

CASE EXAMPLE

Failure to sterilise ultrasound transducer (Appendix 1, Case example 19)

Sonographer S did not sterilise an ultrasound transducer between transvaginal examinations. Following identification of the issue, patients were notified and tested for potential transmissible disease. The sonographer received training; however, there is no record of the incident beyond the workplace.

Impact: Emotional distress for multiple patients and the potential for long-term infection and physical harm if there was a transmissible disease.

BIOLOGICAL EFFECTS

Biological effects refer to the potential for thermal and mechanical effects, such as those resulting from heating, and newer, more powerful technology. For example, if used incorrectly and not following ALARA principles¹⁶ (as low as reasonably achievable), ultrasound technology can result in potential physical harm such as soft tissue injury or injury to neonates during head ultrasounds.

Evidence in this area is limited to journal articles:

- Twelve journal articles and guidelines point to a lack of recent studies, a lack of research on humans, and a lack of research on newer, more powerful technology such as the Doppler mode. While there is general acknowledgement that ultrasound technology represents a low risk, this relies on sonographers having the skills and knowledge to use ultrasound equipment prudently¹⁶ – that is, following ALARA principles and only where medically necessary. Biological risks can vary by exam type, time of exposure and equipment used. Most articles highlight high risk areas such as sensitive tissues (neonate head/spine, the eye, endocavity transducers), as well as Doppler modes and exposure time. Studies also suggest that sonographers and other health professionals often have poor knowledge of how to find and interpret power and exposure safety information on their machines.¹⁷ (see Appendix 3)

OTHER EVIDENCE

In addition to the evidence outlined above, the following evidence was gathered, which also demonstrates that the activities of a sonographer pose a significant risk of harm to the health and safety of the public.

- **National Coronial Information Database** (see Appendix 2)
A report of coronial findings for 2000–2017 identified 17 relevant cases. The report stated that, on average, there is at least one death per year due to the inappropriate use of, or failure to obtain, a medical diagnostic ultrasound examination. While the referring or reporting medical practitioner is assigned a greater responsibility than the sonographer, cases that resulted in death indicate there can be serious implications of any failure in providing timely and accurate diagnostic ultrasound examinations – to which sonographers make a vital contribution.
- **Data from health complaints entities**
In mid-2019, information was sought from each of the state and territory health complaints entities regarding the number and nature of complaints involving sonographers over the past five years. The limitations in reporting meant it was not always possible to identify sonographer-specific complaints or compare significant themes. However, the following insights can be drawn:
 - There is an estimated minimum of 20–25 sonographer-specific complaints recorded nationally per annum. The level of complaints can vary by year, with up to eight recorded in single states in some years during the past five years.
 - The nature of complaints varies and includes practice standards and conduct, as outlined below.

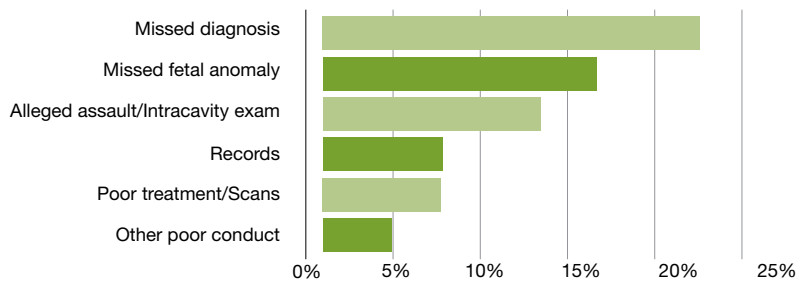
Chart 1: Health complaints entities – Nature of most common complaints involving sonographers 2015-2019



- **Industry insurance data**

Limited access to fragmented and high level industry insurance data captured seventy-eight cases over nine years, to mid-2019. The incomplete nature of the data means results are expected to be significantly under-representative. Combined, 70% of complaints related to one of these issues.

Chart 2: Industry insurance data – Nature of most common complaints 2011-2019



- **Information from employers**

Information from employers is limited and highly sensitive. However, the following insights can be provided:

- Internal complaint systems vary significantly in form and level of detail.
- Anecdotal evidence suggests it is not uncommon for the number of complaints against sonographers to exceed those against radiographers due to the length of time typically spent with the patient and the often-intimate nature of the examinations. Patient concerns regarding internal examinations – especially pelvic exams – are a common theme.
- Other common themes include communication failings, poor interaction with the patient, discomfort and poor technique.

- **Deeble Institute Issues Brief**

A recent issues brief prepared through the Deeble Institute for Health Policy Research⁵⁷ highlights the following:

- It is estimated that 140,000 diagnostic errors occur each year within the Australian health care system, including an estimated 21,000 cases resulting in serious harm and up to 4,000 deaths.
- Despite the large number of diagnostic imaging services utilised, Australian data on the incidence and consequences of diagnostic errors related to medical imaging is lacking.
- Errors in the medical imaging sector can occur during the process of acquiring images and interpreting the scan; as well as communication failures such as lack of timeliness or poor quality of the imaging report.
- High-value health care requires an accurate diagnosis. However, diagnosis is a complex process that is susceptible to error, which has potential to lead to significant patient harm.

2.4 HOW REGULATION UNDER THE NRAS WILL LIMIT OR MITIGATE THE RISKS OUTLINED

Sonographer regulation under the NRAS, with the profession added to the list of those regulated by the MRPBA, will introduce a range of requirements for sonographers that will help limit or mitigate the risks profiled above, as outlined below.

2.4.1 MISSED OR MISDIAGNOSIS

Missed or misdiagnosis can occur in a variety of ways, including from a lack of competence or failure to follow minimum standards and guidelines.

Sonographer regulation through the MRPBA will mitigate the risk of missed or misdiagnosis in the following ways:

- Nationally enforceable minimum standards will ensure sonographers are held accountable to a minimum expectation in their practice.
- Introducing recency of practice requirements will ensure sonographers are competent and familiar with current best practice.
- Where a diagnosis is missed or incorrect as a result of a sonographer’s failure to correctly identify an abnormality, these events can be reported in a centralised system, and investigated in a nationally consistent and timely manner. As well as investigating individual complaints, centralised reporting will enable greater visibility into common issues and contribute to system-wide improvements.
- Introducing the ability to account and audit any directed action – such as supervised practice or additional training – which are mechanisms not available under the current arrangements.

Under NRAS regulation the MRPBA can take a variety of actions in response to a complaint. This includes immediate action, such as temporary suspension, imposing conditions or undertakings, or referring the practitioner to a hearing or tribunal for investigation. For example, where a failure occurs, a registered sonographer could be required to undertake additional training or supervised practice until they are competent. An important element of regulation under NRAS is the monitoring and compliance program that ensures practitioners are complying with the restrictions.

Where relevant, a sonographer's practice can be reviewed by an impartial committee of peers who can provide informed complaint assessment to determine whether a fault has occurred. Under the National Code, mandatory reporting requirements are limited, with the broad requirement that 'health care workers report concerns about the conduct of other health care workers where, in the course of providing treatment or care, they believe that another health care worker has placed or is placing clients at serious risk of harm.'¹⁸

Under NRAS regulation, these requirements would be extended and enhanced, with all professions under NRAS having described minimum practice standards and detailed and enforceable mandatory reporting requirements. This is relevant to cases of missed or misdiagnosis that occur as a result of a sonographer's significant departure from accepted professional standards. Importantly, this applies to situations where an employee resigns or is dismissed, is a locum, or otherwise moves on to another employer who may not be aware of the risks they pose.

Under NRAS regulation, the outcomes of investigations will be more transparent, including through a public register of practitioners, which identifies any conditions, undertakings and reprimands. There is also a national list of cancelled or prohibited practitioners.

2.4.2 OTHER FAILURES IN PROFESSIONAL PRACTICE STANDARDS

Sonographer regulation will mitigate the risks associated with other failures in professional practice standards in many of the same ways that it does for missed or misdiagnosis. This is because these issues are often combined and result from similar matters of incompetence, clinical error or poor practice.

A significant benefit of regulation under the NRAS is the opportunity to correct professional practice in several ways. Including sonographers in the NRAS will provide an increased level of structure, visibility and rigour to be able to assess complaints and implement remedies when action is required, such as additional supervision or additional training, to address sonographer practice issues that are creating a risk of harm to the public.

Introducing nationally enforceable minimum standards will reduce the risk of other failures in professional practice standards by ensuring sonographers adhere to measurable minimum expectations, and recency of practice will ensure sonographer skills and knowledge are up to date. Centralised reporting and nationally consistent complaints handling processes will reduce system variability. This is expected to reduce situations where complaints are not made, not investigated, no action taken, or the employee is dismissed or resigns.

The risks associated with other failures in professional practice standards will be further mitigated by active monitoring and compliance of sonographers under restrictions and extended mandatory reporting requirements. The public will also benefit from increased visibility, with a single public register of outcomes from the most serious cases with a list of deregistered sonographers.

2.4.3 UNPROFESSIONAL BEHAVIOUR

A failure in this area can include unprofessional communication, practising outside their scope, failure to obtain consent, practising under the influence of alcohol or drugs, and assault. Under the NRAS, the provisions and powers to respond to unprofessional behaviour are stronger, broader and more described than under systems such as the National Code of Conduct for Health Care Workers.

Importantly, where there is a severe risk to public safety, such as alleged assault, NRAS regulation has mandatory notification requirements¹⁹ of all registered practitioners, requiring immediate action to prevent serious patient risk.

The extended mandatory reporting requirements are important as, in addition to any treating professionals, non-treating professionals such as colleagues, together with employers, have an avenue to report concerns that are not able to be adequately managed within the workplace, or where the employee resigns or is dismissed before the risk is investigated and mitigated.

In other cases, NRAS regulation allows for the application of a range of notifications and measures, such as directed supervision of a sonographer's practice or constrained scope of practice. The MRPBA also has powers to monitor, audit and direct compliance to ensure any restrictions are adhered to.

Where relevant, a complaint can be investigated through a formal health or performance assessment. Among other things, this can help identify issues such as poor communication. For example, where poor communication leaves a patient unaware of what to expect will occur during the examination, and as a result of something unexpected happening, they make a complaint. Here, supervised practice or further training may effectively improve the sonographer's communication skills and mitigate the risk of this reoccurring.

2.4.4 FAILURE TO ACT APPROPRIATELY WHEN ENCOUNTERING URGENT OR UNEXPECTED FINDINGS

Adding sonographers to the MRPBA would directly address risk associated with *Failure to act appropriately when encountering urgent or unexpected findings* as it would require that all sonographers adhere to the MRPBA Policy 'Communicating safely – if urgent or unexpected findings are identified'. Currently, outside of workplace protocol, there is no enforceable requirement for sonographers to communicate urgent or unexpected findings quickly and to the relevant people unless that sonographer happens to be one of the 24.5% of the workforce already regulated by the MRPBA.

Including sonographer in the NRAS under the MRPBA will mitigate this type of risk by requiring that all sonographers must

'communicate urgent or unexpected findings with the appropriate persons, including the reporting medical specialist, the requesting health practitioner and/or other health practitioners, for the immediate and appropriate management of the patient/client.' The MRPBA also has powers to direct action where this described expectation is not met.

2.4.5 LACK OF INFECTION CONTROL

Infection control is a fundamental requirement of sonographer practice. A lack of infection control often results from a failure to follow expected standards and guidelines. It may indicate incompetence or an error, including those that can occur in a busy or stressful environment. Risks associated with a failure in this area must be mitigated. Sonographer regulation under the NRAS will do this by holding sonographers accountable to minimum standards of practice, and upholding recency of practice requirements ensuring sonographers are aware of and following current guidelines.

Under NRAS regulation, complaints about lack of infection control will be centrally reported and consistently investigated. As well as identifying single or repeated failures by individual sonographers, it also provides visibility of common issues across the profession and can contribute to system-wide improvements. Extended mandatory reporting requirements will help capture and manage complaints about a lack of infection control that are not adequately managed in the workplace, including those where the sonographer takes up employment elsewhere and the employer is not aware of the risk they pose.

2.4.6 BIOLOGICAL EFFECTS

Used incorrectly, ultrasound technology has the potential to result in physical harm from thermal and mechanical effects,^{20, 21} including from newer, more powerful technology where less research into potential risks exists. It is crucial that sonographers follow the ALARA (as low as reasonably achievable) principles and have the skills and knowledge to use ultrasound equipment correctly. Sonographer regulation under the NRAS will help mitigate risks associated with biological effects by ensuring sonographers adhere to minimum standards of practice and recency of practice requirements. Where a failure occurs, the complaint will be recorded and thoroughly investigated, and will provide the opportunity for the sonographer to get feedback on their work. Regulation under the NRAS offers a variety of ways to bring the sonographer back up to practice. Importantly, central reporting of complaints can help identify common issues and contribute to industry-wide system improvements.

SUMMARY

Sonographer regulation under the NRAS, through the MRPBA, will introduce many features that will mitigate the risk to the health and safety of the public in a variety of ways. These are summarised below and will ensure the patient can expect a certain level of consistent standards no matter where they go and have confidence that they will receive safe and quality ultrasound examinations performed by a sonographer on behalf of a medical practitioner.

Table 3: Summary of how sonographer regulation will mitigate the risk of public harm

REGULATION UNDER THE NRAS WILL INTRODUCE	THIS WILL MITIGATE RISK BY
Nationally enforceable minimum standards of practice	Protecting public health and safety through measurable and enforceable standards of practice, with a nationally consistent mechanism to investigate complaints linked to registration and eligibility to practice.
Recency of practice requirements and sonographer protected title	Supporting the quality of patient care by ensuring that sonographers providing ultrasound examinations have current training and skills to provide appropriate health care. This introduces a requirement for sonographers to only undertake examinations within the scope of practice in which they are qualified to perform.
Expanded mandatory notification requirements (to include treating and non-treating practitioners, employers and education providers)	Strengthening patient protections by mandating the reporting of concerns about a sonographer's personal or professional behaviour where there is a reasonable belief that public safety is at risk. This includes risks associated with sonographers who resign or are dismissed and take up employment elsewhere and where the new employer is not aware of potential risks the sonographer poses.
Centralised reporting of incidents through a national complaints handling process	Protecting the public with a simplified, centralised complaints handling mechanism that will make it easier for the public to make a complaint about poor sonographer practice or conduct. There will also be improved public visibility through a single public register of practitioners which would identify those with conditions, undertakings and reprimands on their registration, and a separate list of deregistered sonographers.
An impartial committee of peers to review a sonographer's practice where issues are raised	Increased public assurance of the quality of sonographer ultrasound examination by introducing a process whereby sonographers will be assessed by a panel of their peers against described national minimum standards where their practice is questioned.
Enforceable supervised training, conditions on practice, and other practice improvements	Ensuring performance improvement, in a variety of ways, for lesser breaches. Patients will benefit from the 'soft compliance measures' (such as additional supervised training) to address competence deficiencies and quality improvement if required.
Authority to suspend or stop a sonographer from further practice	Providing the power to stop a sonographer from further practice if they pose a significant risk to the public, including the option for immediate action while the complaint is investigated.

AHMAC CRITERION 3:

Do existing regulatory or other mechanisms fail to address health and safety issues?

Working Group Response – Executive Summary

Currently there are no mechanisms in place that fully address the public health and safety issues that can arise when accessing medical ultrasound examinations performed by a sonographer. The existing regulatory mechanism through the MRPBA addresses all the health and safety issues; however, it only covers 24.5% of sonographers and therefore currently fails to address 75.5% of the profession.

There is no other mechanism of regulation that addresses all the health and safety issues.

The National Code of Conduct for Health Care Workers (the National Code) is the only existing regulatory mechanism that applies to all sonographers; however, it fails to adequately address most of the risks associated with the activities of a sonographer as it primarily focuses on a professional's conduct with a high threshold and issues caused by a lack of competency.

Credentialing organisations such as ASAR and ASMIRT do not provide any regulatory function, do not enforce any standards, nor do they take complaints.

The profession has no self-regulatory function, with the peak bodies being purely membership associations. Considering all the mechanisms in place for sonographers, together the current systems still fall short of meeting the National Alliance of Self Regulating Health Professions (NASRHP) standards to recognise a profession as being self-regulated.

Sonographers work predominately in private practices (72%) and workplaces are unable to provide any form of national standards for the profession. A sonographer's role is performed autonomously and often alone with only the patient and not under direct supervision by a registered practitioner.

Whilst all measures fail in some form to address health and safety issues, adding the remainder of the sonographer profession to NRAS under the MRPBA would efficiently and effectively address all the health and safety issues across the entire profession.

Response by the Working Group for Sonographer Regulation Against AHMAC Criterion 3

The health and safety issues relating to the activities of a sonographer have been outlined in Criterion 2, together with how regulation under the NRAS, by including all sonographers in the list of professions regulated by the MRPBA, will address these issues. There are no mechanisms in place that fully address the public health and safety issues that can arise when accessing the medical ultrasound examinations performed by a sonographer on behalf of a medical practitioner.

3.1 WHY THE CURRENT MECHANISMS FAIL TO ADDRESS THE HEALTH AND SAFETY ISSUES

3.1.1 STATUTORY REGISTRATION IS EFFECTIVE BUT APPLIES TO ONLY 24.5% OF SONOGRAPHERS

Statutory registration of sonographers through the existing MRPBA addresses all of the health and safety issues identified in Criterion 2. Unfortunately, less than a quarter of sonographers are currently registered with the MRPBA.

By comparing the MRPBA register of practitioners with 2019 sonographer workforce data, 24.5% of sonographers are also registered with the MRPBA. This is due to a number of sonographers having an undergraduate qualification in another medical radiation profession. Around two-thirds²² of sonographers report having radiography as their undergraduate training.

However, even for this 24.5% of sonographers under the NRAS, a significant loophole exists. If a complaint raised with the MRPBA resulted in the sonographer losing their MRPBA registration, there is nothing to stop them continuing to practice as a sonographer. Also, with the current arrangements, if an MRPBA registered sonographer doesn't want to have the complaint investigated, they can simply relinquish their registration and the MRPBA loses its power to investigate the complaint. The MRPBA has confirmed that this does happen from time to time, and therefore the public's health and safety is at risk.

In its current form this 'partial regulation' of sonographers only adds to system complexity and confusion. To be fully effective, this mechanism needs to capture all sonographers, which would be achieved by adding sonography as a division of MRPBA registered professions. The MRPBA has also confirmed that if the sonography profession was included in NRAS under the MRPBA, the Board has the powers to reactivate and investigate any complaints made about sonographers where they relinquished their registration to end the investigation.

3.1.2 CODE REGULATION FAILS TO FULLY PROTECT THE PUBLIC HEALTH AND SAFETY

Code regulation, through the National Code of Conduct for Health Care Workers (the National Code), is currently the only existing regulatory mechanism that applies to sonographers; however, it is not effective for all potential risks and is only in force in half of Australia's states and territories.

The National Code is a negative licensing regulatory mechanism that aims to protect the public by setting minimum standards of conduct and practice for all unregistered health care workers who provide a health service, including sonographers. While it addresses some health and safety issues, such as significant breaches in professional conduct, this mechanism fails to adequately address most of the risks associated with the activities of a sonographer as it primarily focuses on professional conduct, has a high threshold for sanctions, and is difficult to enforce due to the lack of sufficient detail.

For example, in Queensland, where complaints are handled by the Office of Health Ombudsman for all complaints against health practitioners, there is a clear difference between the provisions of the National Code and under the NRAS. Notifications for unregistered health practitioners under the National Code can be made against broad criteria such as 'where someone is practising unsafely'.²³ However, the detail and specification of notifications that can be made against NRAS registered health professions is significantly greater and includes mandatory notifiable conduct and the ability to investigate 'sub-standard knowledge, skill, judgement or care shown by a practitioner'.²⁴

The National Code outlines requirements under 17 areas, including providing services safely and ethically, and obtaining consent. It enables prohibition orders and sanctions to be issued on individual health workers, including conditions on practice or prohibiting further practice. However, it has numerous weaknesses.

The generic Code statements, designed to be relevant to all unregulated health professions, are not specific or measurable, and therefore difficult to enforce. To effectively enforce any minimum standard of conduct, competency and quality practice, it needs to be linked to quantifiable minimum sonographer practice standards, such as the *ASA Competency Standards for the Entry Level Sonographer*.²⁵ Currently there is no link. The National Code primarily focuses on conduct, which is only one area of risk. Any Code requirements that do relate to practice, lack detail – for example, the obligation to *adopt standard precautions for the control of infection*. Infection control is a vital element of sonographer practice, and conditions need to be outlined in further detail to be effective.

Similarly, other Code requirements are reactive, such as the requirement to *maintain the necessary competence in (their) field of practice and not provide health care ... outside (their) experience or training*. In contrast, NRAS regulation through MRPBA is proactive and integrates scope of practice standards, requirements for CPD and requirements for recency of practice into one system, reducing the risk of issues occurring in the first place.

While the National Code enables prohibition orders to be issued, it is a blunt and reactive mechanism. For this strong action to be taken, an unquestionably serious offence has to occur and be proven to be a specific breach against the Code.

‘... the health complaints entity has powers to issue a prohibition order or interim prohibition order, where the National Code has been breached or where the health care worker has been charged with or found guilty of certain specified and serious criminal offences.’²⁶

This type of action is only relevant to a small proportion of cases.

‘(The) vast majority of unregistered health practitioners practice in a safe, competent and ethical manner. There are, however, a small proportion of unregistered health practitioners who present a serious risk to the public because they are incompetent, or impaired due to physical or mental dysfunction or drug or alcohol addiction, or they engage in exploitative, predatory and illegal conduct such that, if they were a registered health practitioner, would result in cancellation of their registration and removal of their right to practice.’²⁷

Importantly, there is inconsistent provision across Australia to enforce improvements on those committing lesser offences. In comparison, the regulation of sonographers under NRAS through MRPBA would allow for a variety of additional possible responses, which are nationally consistent, such as the requirement for further training or a period of supervised practice, to bring the individual back up to standard. It also allows for the development of new industry-wide guidelines and associated training for all relevant professionals where common issues arise. The lack of provision to manage lesser offences is a significant failure of the National Code, as identifying and effectively mitigating risks associated with poor sonographer practice before they become a significant issue is critical to ensuring the health and safety of the public.

Finally, the system is yet to be fully implemented, including the current lack of a national register and differences in the processes by jurisdiction, which only adds to the weakness of this mechanism.

NRAS regulation provides additional benefits by incorporating practitioner certification requirements, course accreditation, and protected professional title – functions which are largely outside the scope of the National Code.

A comparison of the improved sonographer regulation under NRAS compared to current mechanisms and the National Code of Conduct for Health Care Workers can be found in the table below. What is currently in place for all sonographers excludes the National Code mechanism as the National Code is only operational in four out of eight Australian states and territories.

Table 4: Improved sonographer regulation under NRAS compared to current mechanisms and the National Code of Conduct for Health Care Workers

FUNCTIONS AND AUTHORITY	WHAT IS CURRENTLY IN PLACE FOR ALL SONOGRAPHERS (EXCLUDING THE NATIONAL CODE)	NATIONAL CODE OF CONDUCT FOR HEALTH CARE WORKERS	REGULATION UNDER NRAS, THROUGH MRPBA
Nationally enforceable standards of practice	NO	NO	YES
Enforceable code of ethics/ professional conduct	NO	Limited	YES
Complaints process	NO	Limited	YES
Powers for profession sanctions or negative licensing	NO	YES	YES
Ability to correct professional behaviour through a variety of measures	NO	Limited	YES
Mandatory declarations	NO	Limited	YES
Recency of practice requirements	Partial	NO	YES
Defined continuing professional development requirements	YES	NO	YES
Professional indemnity insurance requirements	NO	YES	YES
Practitioner certification requirements	YES	NO	YES
Course accreditation	YES	NO	YES
Protected professional title	NO	NO	YES

A profile of the current complaints handling process for sonographers, including complaints managed through the National Code via health complaints entities, can be found in Appendices 4B and 4C. The diagram in Appendix 4B highlights the multiple avenues a patient with a complaint may take and the strengths and weaknesses of each option. It demonstrates a confusing system with no single avenue being fully effective or nationally consistent. It also shows a glaring gap in the current management of complaints about the professional practice of sonographers.

3.1.4 CREDENTIALING FAILS TO PROVIDE ONGOING PROTECTION FOR PATIENTS

The Australian Sonographer Accreditation Registry (ASAR) and Australian Society of Medical Imaging and Radiation Therapy (ASMIRT) are the bodies responsible for accrediting ultrasound courses and assessing overseas qualified sonographers, respectively. While they provide an essential credentialing function for the sonographer profession, they fail to address all the health and safety issues identified against Criterion 2, as they do not handle complaints and do not have the regulatory power to enforce standards or stop sonographers from practising due to poor practice or conduct.

The Australian Sonographer Accreditation Registry (ASAR)

ASAR is not a registration board.²⁸ It maintains a register of accredited medical sonographers who have completed an ASAR accredited ultrasound education course. Sonographers who perform an ultrasound examination must be listed on the registry for a Medicare Benefits rebate to be claimed by the reporting medical practitioner.

The registry may not include all sonographers. Sonographers who perform medical ultrasound examinations on behalf of a medical practitioner outside of the Medicare system (e.g. public hospital inpatient services, non-Medicare funded services in private practice) are not required to comply with ASAR accreditation requirements unless it is a condition of employment.

ASAR does not have the authority to remove a sonographer from the registry or the ability to prevent a sonographer from practising due to professional misconduct.

ASAR is only able to remove a sonographer from the registry if they:

- fail to meet CPD requirements

and/or

- fail to pay annual fees.

Australian Society of Medical Imaging and Radiation Therapy (ASMIRT)

ASMIRT is responsible for assessing the qualifications of overseas trained sonographers. Overseas trained sonographers use a certificate of recognition from ASMIRT to be recognised by the ASAR to be listed on the registry.

After ASMIRT has issued a certificate of recognition they provide no further oversight or involvement with the sonographer's standard of practice or conduct.

3.2 THERE IS NO SELF-REGULATION OF SONOGRAPHERS

Self-regulation does not exist in the sonographer profession.

The National Alliance of Self Regulating Health Professions (NASRHP)²⁹ is the peak professional body which self-regulates a specific allied health profession based in Australia. The NASRHP maintains and administers an evidence-based national framework of regulatory standards to determine if a peak body should be recognised as self-regulating the respective profession.

The following NASRHP standards, required of self-regulating peak bodies, are not in place at all for sonography: complaints procedures (Standard 3), described English language requirements (Standard 7), mandatory declarations (Standard 8), and recency of practice requirements (Standard 11).

There is also an expectation that a single peak body has oversight of and enforces the standards for a profession to be self-regulated. Sonography falls very short of these expectations.

There are several peak industry bodies for sonographers. The ASA, ASUM and ASMIRT provide important support for the profession. However, none of the peak bodies would come close to meeting the NASRHP standards to self-regulate the profession. And all of the peak bodies have the following limitations:

- Membership is voluntary.
- None are able or empowered to investigate complaints about sonographers.
- None uphold or assess recency of practice requirements.
- They do not have the authority to enforce professional standards.
- Even if they become aware of an issue, they do not have the power to impose conditions or stop a sonographer from practising.

3.3 OTHER MECHANISMS ALSO FAIL TO ADDRESS HEALTH AND SAFETY ISSUES

There are a few other mechanisms relevant to the sonographer profession, such as supervision by a medical practitioner, workplace protocols and employment requirements, and the Diagnostic Imaging Accreditation Scheme. These mechanisms fail to address many of the health and safety issues outlined against Criterion 2, as described below.

3.3.1 SUPERVISION BY A REGISTERED PRACTITIONER IN A RELATED PROFESSION

Supervision by a medical practitioner fails to address the health and safety issues associated with poor sonographer practice and conduct, as sonographers mainly work autonomously; some also work remotely.

While there may be circumstances in which the reporting medical practitioner enters the examination room or talks to the patient to understand symptoms or findings better, this is an exception, with the examination typically undertaken independently by the sonographer.

Ultrasound examinations are highly operator dependent; the individual operator must determine and record representative images for use by the reporting medical practitioner. The outcome of the examination is influenced by the medical knowledge and technical skill of the sonographer who is producing images that are a representation of the entire real-time examination.

If the sonographer fails to view the entire structure or recognise that something is not normal, diagnostic information may be missed. Supervision does not provide adequate assurances about the quality of the scan, compliance with standards and guidelines, and conduct of the sonographer during the examination.

The reporting practitioner relies on the sonographer's findings to prepare their report for the referring practitioner. As such, supervision is not an effective way to mitigate risks associated with sonographers, particularly in terms of the care given during individual examinations.

3.3.2 WORKPLACE PROTOCOLS AND EMPLOYMENT REQUIREMENTS

Workplace protocols and employment requirements, including industrial awards, fail to adequately address many of the health and safety issues outlined in Criterion 2 as there is no consistency and they are only enforceable within the workplace by individual employers. Even if a sonographer is dismissed for poor practice or conduct, they are free to take up employment elsewhere.

Under the Diagnostic Imaging Accreditation Scheme (DIAS) all service providers are required to have a complaints handling system in place; how this operates in practice is mostly determined by the employer. There are no nationally consistent requirements and arrangements can vary significantly. This piecemeal approach does not allow for industry-wide improvements, provides little if any public visibility of issues or outcomes, and can result in significant gaps.

Some complaints may be effectively resolved by employers, including simple cases where an apology or refund is sought, and situations where the sonographer acknowledges a failing and the employer is committed to working together to resolve it. However, this is not always easy, particularly where it relates to ongoing underperformance and clinical incompetency. In the self-reported case examples gathered, some employers expressed frustration about the lack of system support for them to address this type of issue effectively.

Complaints that are not able to be resolved can result in dismissal; or a sonographer may resign to avoid repercussions. In both cases the sonographer is free to take up employment elsewhere, where the new employer often has no visibility of past issues. There is no system to monitor individual sonographers who change employer, which can then place the public's health and safety at risk.

Employers establish their employment requirements, which may include education, experience and ASAR registration where relevant. Employment screening is at the discretion of the employer. Ongoing employment is based on the terms of the employment contract and the expectations of quality and conduct the employer chooses to uphold.

Unlike many other areas of health that are dominated by public sector employment, around 72% of sonographers are employed in private practice where employment agreements are independently negotiated. The second most common arrangement is employment under public sector awards.

3.3.3 DIAGNOSTIC IMAGING ACCREDITATION SCHEME (DIAS)

The DIAS is the Australian Government framework to determine the suitability of diagnostic imaging services to provide Medicare-funded diagnostic imaging. It does this by assessing diagnostic imaging businesses against 15 practice accreditation standards.

DIAS is a workplace accreditation scheme and does not address risks to the public from poor sonographer practice and conduct, as the appropriate governance and procedural requirements apply to the service provider and are measurable at a practice level only; they do not consider the conduct or practice of individual sonographers.

DIAS does have a link to the ASAR as *DIAS Standard 1.2 Registration and Licensing Standard*³⁰ requires that 'where the practice provides ultrasound services, copies of each sonographer's statement of accreditation on the Australian Sonographer Accreditation Register (ASAR) or a registration number which can be verified on the ASAR register'.

However, similar to the ASAR registration, DIAS only applies to practices seeking to offer Medicare-funded services and therefore is not universal.

AHMAC CRITERION 4:

Is regulation possible to implement for the occupation in question?

Working Group Response – Executive Summary

Sonography is a well-defined profession with *sonographer* the occupational title that describes the professionals providing comprehensive medical ultrasound examination regardless of the specified scopes of practice.

The profession has processes and frameworks that clearly define and benchmark the profession to make it possible for regulation to be easily implemented.

There is no danger of over-regulation as sonographers are the only professionals that use the proposed protected title, and whilst ultrasound is used by other professions, regulation of the sonographer profession would not limit or regulate who can and can't perform ultrasound scans.

The sonographer profession has a substantial body of knowledge that forms the basis of standards of practice, along with the skills and abilities necessary to apply the knowledge and is teachable and testable. This includes the *ASA Competency Standards for the Entry Level Sonographer*, which forms the minimum expected standards of professional competency and a framework for education and training, including course design, student assessment, and course accreditation.

To be classed as an entry level sonographer you must complete an accredited, core postgraduate qualification via an accredited course with a TEQSA or ASQA registration certificate, regardless of the scope of practice. The individual is then eligible for entry onto the ASAR Registry of Accredited Medical Sonographers, which the Australian Government has recognised as the minimum requirement for sonographers to perform medical ultrasound examinations on behalf of a medical practitioner under Medicare.

All of these existing structures clearly define and limit who can be recognised as a sonographer, making it possible to implement regulation for sonographers in the NRAS.

Response by the Working Group for Sonographer Regulation Against AHMAC Criterion 4

For over two decades the sonographer profession has been working persistently to establish and revise processes and frameworks that clearly define and benchmark the profession to make it possible for regulation to be easily implemented.

4.1 THE SONOGRAPHER PROFESSION IS WELL-DEFINED WITH ESTABLISHED PROFESSIONAL PARAMETERS

The sonographer profession has been recognised as an integral component of comprehensive imaging services for over four decades. It has evidence-based research foundations with a large body of international literature that defines the profession and discusses the role of the sonographer. This extends from the scientific, international peer reviewed journals *Sonography* published by the ASA and the *Australasian Journal of Ultrasound in Medicine* published by ASUM, to an extensive collection of international journals that discuss the profession and broader topics of ultrasound in medicine and diagnostic imaging.

Sonography has firmly defined professional parameters that gauge the limits of the profession. These include the collective title of *sonographer*, qualification pathways, clinical tasks and duties, and standards and guidelines for practice and conduct, as discussed in more detail below.

Sonographer is the occupational title that describes the professionals providing comprehensive medical ultrasound examination regardless of the clearly specified scopes of practice (e.g. cardiac ultrasound, obstetric ultrasound). Like other NRAS registered professions (e.g. nurse, occupational therapist), a sonographer enters the profession through completion of an accredited course of study. For sonographers, graduating with this postgraduate study and any subsequent training, establishes the professional parameters of the sonographer's scope of practice.

Sonographer is also the defined profession on the Australian and New Zealand Standard Classification of Occupations (Unit group 2512, occupation 251214) with government agreed, high level statements of profession parameters, minimum qualification, and tasks.³¹

4.2 THE SINGLE TITLE OF SONOGRAPHER SHOULD BE PROTECTED

Sonographer is the most common title used in the profession, and it alone should be protected for all sonographers regardless of their defined scope of practice. *Sonographer* is used almost exclusively on mainstream employment websites, by governments in skill shortage lists³², and is increasingly common in state-based awards. Use of older titles, such as 'ultra-sonographer', 'ultrasound technician', and 'medical imaging technician – sonographer', is now uncommon.

4.3 THERE IS NO DANGER OF OVER-REGULATION AS ONLY SONOGRAPHERS USE THE PROPOSED PROTECTED TITLE

There is no danger of over-regulation as sonographers are the only professionals that use the proposed protected title. There is not a wide variety of practitioners that use the *sonographer* title.

Sonographer regulation under the NRAS will only apply to the clearly defined sonographer profession. It will not apply to other occupations and therefore will not limit or regulate other occupations that use ultrasound in their scope of practice. Medical practitioners and other medical professionals such as nurses, midwives and physiotherapists who use ultrasound as part of their diagnostic or therapeutic practice have their own protected titles and are covered by existing regulation.

A sonographer's scope of practice is to provide comprehensive medical diagnostic ultrasound examinations. This is different to other types of ultrasound imaging employed by other professions, such as point-of-care ultrasound (POCUS). POCUS is performed by other health professionals who use ultrasound equipment to enhance and extend their clinical examination of the patient.³³ POCUS is not a comprehensive examination and is typically considered to be separate to sonographer usual scope of practice.

4.4 THE SONOGRAPHER PROFESSION HAS A BODY OF KNOWLEDGE THAT FORMS THE BASIS OF STANDARDS OF PRACTICE

The sonographer profession has a substantial body of knowledge that forms the basis of standards of practice. This includes the *ASA Competency Standards for the Entry Level Sonographer*²⁵, which forms the minimum expected standards of professional competency.

For sonographers and employers, these competency standards:

- describe the performance standards and required skills, knowledge and attributes for a sonographer to enter or return to practice
- assist in developing position descriptions, support performance appraisal, outline career pathways and development opportunities
- improve consistency of education and clinical practice outcomes.

These competency standards are used by the ASAR³⁴ to accredited sonographer programs of education.

In addition, *the ASA Sonographer Code of Conduct*³⁵ and supporting clinical statements and guidelines are established industry foundations, voluntarily agreed to by more than 75% of accredited sonographers. The ASUM's standards of practice framework also provides an extensive range of statements, guidelines and policies related to the use of diagnostic medical ultrasound in clinical practice.³⁷ They have been developed with industry consultation and consider international guidelines.

4.5 THE BODY OF KNOWLEDGE FOR THE SONOGRAPHER PROFESSION IS TEACHABLE AND TESTABLE

The body of knowledge associated with the sonographer profession, along with the skills and abilities necessary to apply the knowledge, is teachable and testable. The *ASA Competency Standards for the Entry Level Sonographer* provides a framework for education and training, including course design, student assessment, and course accreditation. It is already used by the ASAR for this purpose.

For universities and course providers, these competency standards:

- define professional requirements to underpin course design
- improve rigour and consistency of assessment of academic learning and clinical placements
- support the continual review of guidelines for course accreditation.

4.6 FUNCTIONAL COMPETENCIES FOR THE SONOGRAPHER PROFESSION HAVE BEEN DEFINED

Functional competencies for sonography are well-defined and are incorporated into the assessment process for all relevant courses. The current competencies are:

- **Knowledge:** Physics, system instrumentation, anatomy, physiology, pathophysiology, pathology, radiology, clinical medical sciences, ultrasound image interpretation, understanding of the broader clinical context and patient pathways
- **Skills:** Clinical assessment of the patient, performance of ultrasound examinations using a broad range of instruments and ultrasound imaging equipment, infection control and procedural tasks as dictated by various ultrasound domains (e.g. cannulation, interventional guidance, etc.)
- **Attitude:** Professional attitude, communication and behaviour, health care ethics, research ethics, advocacy, and evidence-based practice.

However, the ASAR has recently funded research reviewing and benchmarking these competencies. It is expected that the outcome of this research will inform the production of a revised and contemporary competency statement.

4.7 MEMBERS OF THE SONOGRAPHER PROFESSION REQUIRE CORE AND GOVERNMENT ACCREDITED QUALIFICATIONS

Sonographers must complete an accredited, core postgraduate qualification. The ASAR is responsible for accrediting sonographer courses of education. The ASAR standards state 'The course provider (must) demonstrate current quality assurance and accreditation in the relevant education and training sector in Australia'³⁸ and are required to provide a TEQSA or ASQA registration certificate.³⁹

There are currently 19 accredited sonographer courses⁴⁰ offered across Australia. Applicants for accredited sonography courses may come from a variety of backgrounds including medical radiation technology, nuclear medicine technology, cardiac physiology, vascular medicine, physiotherapy or nursing. Many courses relate to the general discipline of medical ultrasound, while some are specific to a scope of practice, such as cardiac and vascular sonography. Completion of all postgraduate sonographer qualifications typically involves 80% clinical training at a workplace, equivalent to 3 days per week over 2 years (which is approximately 2,200 hours) and 20% academic coursework.

On completion of an accredited sonography course, which includes the completion of the minimum recommended clinical training, entry level sonographers are eligible for entry onto the ASAR Registry of Accredited Medical Sonographers.

The Australian Government has recognised this framework for accrediting qualifications by requiring it as a minimum requirement for sonographers to perform medical ultrasound examinations on behalf of the medical practitioner under Medicare. However, to apply this requirement to all current and future sonographers, the profession needs to be included in the NRAS.

AHMIC CRITERION 5:

Is regulation practical to implement for the occupation in question?

Working Group Response – Executive Summary

With almost a quarter of sonographers already registered with the MRPBA, regulation of sonographers under this existing NRAS Board is the most practical and effective approach to protecting the public and mitigating the current risk of harm to their health and safety posed by the activities of the sonographer profession. This is a model that currently exists in New Zealand and Canada where all medical imaging professions are regulated under the one board.

The sonographer profession is already organised through accreditation with ASAR, and membership with ASA, ASUM and ASMIRT, with most accredited sonographers being members of at least one of these peak bodies. These peak bodies all have a commitment to delivering high quality ultrasound and recognise the role of sonographers through a sonographer membership category.

Self-regulation is not practical to implement for sonographers. There is no single entity whose functions could be simply enhanced to take on a self-regulatory role for the profession. Self-regulation would also fail to provide consistent public protections from the significant risk of the activities of a sonographer as almost a quarter would remain registered with the MRPBA.

Other alternatives, such as enabling ASAR to uphold sonographer regulation, are not practical or an effective solution due to it being constrained by Medicare legislation.

Leadership within sonography is focused on the public interest, as demonstrated in each peak body's strategic objectives, which all aim to provide a high quality standard of ultrasound to the public.

The profession and the wider medical industry are fully supportive of the NRAS model of regulation under the MRPBA with letters of support obtained across the health care industry. In addition, 93% of the general public already believe that sonographers are regulated and support sonographers to becoming regulated.

In December 2021, there were 7,022 medical sonographers and 1,042 student sonographers, which is a larger workforce than several of the professions currently regulated under NRAS. By adding the profession to the existing board of the MRPBA, cost recovery is not an issue. Sonographers are willing to contribute to the cost of regulation as they have expressed their support for regulation and currently pay an annual fee to be listed with the ASAR.

Response by the Working Group for Sonographer Regulation Against AHMAC Criterion 5

With almost a quarter of sonographers already registered with the MRPBA, including the sonographer profession in the NRAS by adding sonographer as a division of the MRPBA is the most practical solution.

5.1 SELF-REGULATION AND/OR OTHER ALTERNATIVES TO REGISTRATION ARE NOT PRACTICAL TO IMPLEMENT

5.1.1. SELF-REGULATION IS NOT PRACTICAL TO IMPLEMENT FOR SONOGRAPHERS

Self-regulation is not practical to implement for sonographers as it fails to adequately address the risks associated with poor sonographer practice and conduct outlined in Criterion 2. This includes, but is not limited to, the risk of significant physical and emotional harm resulting from missed or misdiagnosis and other failures in practice, unprofessional behaviour including assault, failure to act appropriately when encountering urgent or unexpected findings, and lack of infection control.

Considering all the mechanisms in place for sonographers, together they fall short of meeting the National Alliance of Self Regulating Health Professions (NASRHP) standards to recognise a profession as being self-regulated. No sonographer peak body is close to meeting the benchmark to self-regulate the profession.

Furthermore, relying on self-regulation would not address the confusion in the system caused by almost a quarter of sonographers that are already being regulated under the MRPBA. Considering the number of high risk activities and procedures performed by sonographers, self-regulation will fail to protect the public health and safety⁴¹ as it:

- would not capture all sonographers
- provides little authority to enforce standards of practice and conduct outside of expelling members.

No single organisation within the profession undertakes all the functions commonly associated with self-regulated professions, which includes the scope of practice, code of ethics and practice, competency standards, complaint management, practitioner certification, course accreditation, continuing professional development, and recency of practice requirements.

Critically, no organisation has or can easily implement a complaints handling mechanism or assess recency of practice that would apply for the whole profession. These functions are fundamental to mitigating risks associated with poor sonographer practice and conduct.

5.1.2. ENABLING ASAR TO UPHOLD SONOGRAPHER REGULATION IS NOT PRACTICAL TO IMPLEMENT

While the ASAR has been managing a registry of sonographers for the last two decades, the Working Group for Sonographer Regulation believes enabling ASAR to uphold sonographer regulation is not practical to implement as it is unlikely to succeed or to be effective in real circumstances. This is for several reasons including:

- ASAR's current role is limited to Medicare legislative provisions
- expanding the scope of ASAR's role would be costly, and include legislative and constitutional changes.

ASAR's current form also fails to address the risks associated with poor sonographer practice and conduct, such as missed or misdiagnosis and unprofessional behaviour.

There is also no way to simply increase the scope of ASAR to take on a regulatory function and doing so would be costly. To do this would require changes to national Medicare legislation, significant changes to the ASAR company constitution, as well as funding for implementation and ongoing financing for the ASAR to provide the additional functions and duties. Even if all of these changes and costs were paid for, ASAR wouldn't be able to regulate all sonographers as ASAR operates for Medicare-funded examinations only, and therefore does not capture all sonography examinations or sonographers.

It is also highly likely that this impractical option would further increase confusion about where complaints about sonographers are addressed. For example, it might leave ASAR to handle complaints if they related to Medicare-funded examinations; MRPBA to become involved if the sonographer is registered with them; and then the relevant health complaint entity to be involved in all other sonographer-specific complaints.

5.2 INDUSTRY LEADERSHIP IS FOCUSED ON PUBLIC INTEREST

The leadership of ASUM, ASA and ASAR all recognise the weaknesses of the existing mechanisms in assuring public health and safety and in seeking national regulation have expressed a commitment to improving this situation in the public interest.

Demonstrating this commitment, ASUM, ASA and ASAR established the Working Group for Sonographer Regulation to develop this submission to Health Ministers to include sonographers in the NRAS. Industry leadership is focused on the public interest, as demonstrated through each organisation's strategic objectives. The purpose of the ASA is 'Fostering a sonography profession that delivers high quality ultrasound',⁴² with a vision of 'A healthier world through sonographer expertise'.

The primary objective of ASAR is ‘To promote high standards of medical ultrasound in Australia’,⁴³ while the mission of ASUM is to ‘foster a collaborative multi-disciplinary community of highly competent health professionals who deliver ultrasound excellence’.⁴⁴

Industry leadership also recognises that sonographers have a role to play in improving the health and wellbeing of Aboriginal and Torres Strait Islander people, and ensuring that ultrasound examinations are culturally safe and responsive. Sonographers are committed to working with and promoting the agenda currently being progressed through AHPRA and the National Boards via the Aboriginal and Torres Strait Islander Health Strategy (2020-25), in line with the advice provided by Health Ministers. Evidence of this includes the cultural sensitivity training programs currently being put in place for sonographers.

5.3 THE SONOGRAPHER PROFESSION IS ORGANISED AND SUPPORTS REGULATION

The sonographer profession is organised through accreditation with ASAR and membership with ASMIRT, ASUM and ASA. Most accredited sonographers are members of at least one of these peak bodies. These peak bodies all have a commitment to delivering high quality ultrasound and recognise the role of sonographers through a sonographer membership category.

Sonographers have been organised for some time, and as a group lobbied for the ASA, which was established in 1992, to be exclusively dedicated to representing sonographers.

Sonographers support the proposal for NRAS regulation of the profession and are expected to seek compliance with the regulations as:

- sonographers have indicated that one of their biggest concerns about the industry is the current lack of professional regulation²²
- existing ASA members voluntarily commit to the *ASA Sonographer Code of Conduct* and supporting clinical statements and guidelines. They are familiar with the types of standards and principles expected of sonographers under MRPBA
- most sonographers already comply with ASAR system requirements and are familiar with the CPD and annual registration requirements involved
- one-quarter of sonographers are dual qualified and are already registered with MRPBA.

5.4 THE HEALTH INDUSTRY AND PUBLIC ALSO SUPPORT SONOGRAPHER REGULATION

Since late 2018, the ASA has undertaken extensive stakeholder consultation, meeting with and providing regular updates to members of the imaging and wider health industry, unions, other allied health professions, and consumer health and safety representatives. The need for sonographer regulation is widely acknowledged, and to date, no organisations are opposing it.

The diagnostic imaging and medical industry agree with the proposal for sonographer regulation, as evidenced in the substantial number of attached letters of support, including those from the Australian Medical Association and the Royal Australian and New Zealand College of Radiologists. These letters reflect concern over the current lack of regulation and associated risks and the expected benefits of regulating sonographers under NRAS.

The public also agrees with the proposal. Independent public opinion market research undertaken by Survey Matters² on behalf of the ASA in 2019 found that 93% of respondents believed that sonographers were already regulated and supported sonographers to become regulated. In addition, 82% were concerned that sonographers were not regulated under NRAS.

5.5 THE SONOGRAPHER PROFESSION HAS SUFFICIENT NUMBERS AND IS WILLING TO CONTRIBUTE TO THE COST OF STATUTORY REGULATION

There are 8,064 sonographers in the profession who are organised through accreditation with ASAR. This includes 7,022 medical sonographers and 1,042 student sonographers as at December 2021. The number of accredited medical sonographers has increased 61% in the ten years to 2021⁴⁶ and is expected to continue rising, reflecting ongoing demand for services.

Due to the sonographer profession numbers, sonographer regulation will increase the total number of registrants under MRPBA by almost 30%, to over 21,700, increasing the MRPBA's operating revenue by a similar amount, making the solution practical and cost effective.

Sonographers are willing to contribute to the cost of regulation as they have expressed their support for regulation and currently pay an annual fee to be listed with ASAR. The cost of sonographer regulation is expected to be covered by the initial application fee, together with the ongoing annual MRPBA registration fee. Besides, 24.5% of sonographers are already registered with MRPBA as a medical radiation practitioner. These sonographers are expected to benefit as they will likely no longer be required to pay both ASAR and MRPBA annual registration fees. Including the profession in the NRAS would transfer the course accreditation and CPD auditing functions of ASAR to MRPBA, meaning that all sonographers would then be solely registered with the MRPBA and therefore required to pay only one registration fee.

5.6. COST RECOVERY IN SONOGRAPHER REGULATION IS NOT AN ISSUE

Adding sonographers to the existing MRPBA will generate minimal additional costs while improving cost efficiencies by adding over 5,000 additional professionals. Any costs associated with this change are expected to be offset by applicable application and registration fees paid by sonographers in the first year. Annual registration fees will cover ongoing costs. Therefore, we do not believe there is an issue of cost recovery associated with sonographer regulation.

This proposed model to include sonographers in the NRAS is particularly cost effective. Adding the profession to an existing NRAS Board, the MRPBA avoids the establishment costs (\$1.6M for the Paramedicine Board) and enhances the self-sustainability with increased annual revenue for the current MRPBA.

5.7 GOVERNMENTS AGREE WITH THE PROPOSAL FOR SONOGRAPHER REGULATION

Over the past three years, the ASA and ASUM have consulted with various levels of government across Australia. Government representatives have recognised the need for sonographer regulation, and to date, no parties are opposing it.

On 4 December 2019, the Australian Senate publicly agreed that sonographer regulation was needed to protect the public. With bipartisan support they noted that *‘the outcome of an ultrasound is reliant on the competence and expertise of the sonographer; sonographers are the only medical imaging profession not regulated in Australia; and calls on the Federal Government to sponsor a submission to the COAG Health Council for sonographers to be regulated by adding the profession to the list of imaging professions already regulated by the Medical Radiation Practitioner Board of Australia.’*¹⁴⁷

AHMAC CRITERION 6:

Do the benefits to the public of regulation clearly outweigh the potential negative impact of such regulation?

Working Group Response – Executive Summary

Regulating sonographers under the NRAS, by including sonographer to the list of MRPBA registered practitioners, would benefit and protect the public by ensuring that all sonographers are held to the same high standards; that only sonographers who are suitably trained and qualified to practice competently and ethically with a recency of practice are registered; and that there is national consistency in managing complaints and concerns raised about the health, performance and conduct of individual sonographers against described and enforceable standards of practice.

Regulating the sonographer profession under the MRPBA will provide an increased level of structure, visibility and rigour to be able to assess complaints and implement remedies when action is required to protect patients. The public would also have access to a simplified, centralised complaints handling mechanism making it easier to make a complaint about poor sonographer practice or conduct compared to the confusing system that currently exists.

The significant benefits to the public's safety and protection clearly outweigh any potential negative impacts to sonographers, the marketplace, governments and the national health system, with some stakeholders positively impacted.

The expected cost and administrative impacts to sonographers are well understood, including those to medical, student and overseas trained sonographers. Any impacts to employers are also well understood, with larger employers likely to benefit from some changes as a result of a simplified, national system and a reduced administrative burden.

Other users of medical ultrasound are not expected to be impacted or restricted in any way, as regulation of the sonographer profession would not limit or regulate who can and can't perform ultrasound scans.

Consumers are not expected to experience any change in access to service or choice, and are likely to have improved confidence in the profession. This may result in fewer patients seeking a second opinion and additional Medicare-funded ultrasound services.

Governments are anticipated to experience some cost and administrative impacts, but importantly seeking sonographer regulation through an existing board will avoid a significant start-up cost of an estimated \$1.6 million. Many states and territories are also expected to benefit as they will no longer need to bear the cost of investigating complaints against sonographers, estimated at \$18,850 per complaint.

The MRPBA would see an increase of 30% of registered practitioners, which would easily cover any additional expenditure and would be a very self-sufficient regulation model. The small annual professional fee increase, from what sonographers currently pay, would easily be tolerated.

Including sonographers in the NRAS under the MRPBA will likely enhance the public's confidence in health care and health care regulation. Arrangements for dual registered professions are expected to be consistent with those that already exist, and therefore not present a barrier.

Response by the Working Group for Sonographer Regulation Against AHMAC Criterion 6

As sonographers are seeking to be added to an existing board, the benefits to the public of regulation clearly outweigh the minor potential negative impacts of becoming regulated under NRAS.

6.1 THE BENEFITS TO THE PUBLIC OF SONOGRAPHER REGULATION UNDER THE NRAS ARE SIGNIFICANT AND QUANTIFIABLE

6.1.1 THE PUBLIC CAN BE ASSURED ALL SONOGRAPHERS ARE HELD TO THE SAME HIGH STANDARD

National regulation under the NRAS will capture all sonographers under a single protected title regardless of:

- their education pathway or scope of practice
- whether they are employed in the public or private sector
- whether or not they perform Medicare rebatable examinations on behalf of a medical practitioner
- the state or territory they are located in.

It will also capture professionals maintaining registration in other AHPRA Boards.

A national system will support consistency of practice standards, and ensure sonographers are only undertaking examinations they are qualified to perform.

6.1.2 INCREASED PUBLIC PROTECTIONS AND OVERSIGHT OF COMPLAINTS ABOUT SONOGRAPHERS' PRACTICE

Including sonographers in the NRAS will provide an increased level of structure, visibility and rigour to be able to assess complaints and implement remedies when action is required, such as additional supervision or additional training, to address sonographer practice issues that are creating a risk of harm to the public. The public will also benefit from increased visibility, with a single public register of practitioners which would identify those with conditions, undertakings and reprimands on their registration, and a separate list of deregistered sonographers.

A significant benefit of regulation under the NRAS is the opportunity to correct professional practice in several ways. In addition to sanctions, it allows for additional training, supervision, mentoring, or restrictions on a sonographer's practice, as well as non-restricted actions such as warnings, fines and counselling. This enables a broader range of issues to be dealt with, including less severe but recurrent issues, or those that have the potential to escalate if left unresolved or can go unnoticed if a sonographer changes employer.

Evidence from medical professionals highlights examples of ongoing performance issues by individual sonographers⁴⁸ and the challenges in resolving them. The opportunity to correct practice in several ways is significant given evidence that most complaints under MRPBA are dealt with in this way, with only a small number of cases resulting in suspended or cancelled registrations.

The public may also benefit from mandatory notification requirements that include both treating and non-treating practitioners and employers relating to conduct, as well as any significant departure from accepted professional standards. Students will also be subject to mandatory notifications by educators, which can provide early warning of potential problems.

6.1.3 EASIER FOR THE PUBLIC TO MAKE A COMPLAINT ABOUT POOR SONOGRAPHER PRACTICE OR CONDUCT

Including sonographers in the NRAS will introduce a centralised and transparent complaints handling process that will make it simpler and clearer for the public needing to make a complaint about a sonographer's practice or conduct. This is a notable benefit given the level of confusion about the current system. There will also be improved public visibility of the outcome of the most severe cases; visibility of practitioners with current conditions, undertakings and reprimands; together with a list of deregistered professionals.

Having one agency responsible enables more efficient and timely complaints investigation and resolution. It also makes it easier to identify common issues and trends, which can support industry-wide improvements. Also, a centralised system may limit the need for involvement by other bodies or rely on the complaint becoming a costly criminal matter before action can be taken. A patient may also benefit if it means they no longer have to bear the cost of pursuing private action for damages.

Importantly, under the NRAS there is increased provision for complaints to be received and investigated about a sonographer's practice where there are serious or repeated mistakes made in carrying out ultrasound examinations and where there is failure to examine a patient properly or to respond reasonably to a patient's needs.

It also enables sonographers to receive timely feedback through the nationally consistent notifications process, which could result in recommended steps to bring their work up to standard. Case example 43 highlights a recent situation where lack of feedback in the workplace over many years had led a sonographer to a false belief their scanning was up to standard.

As changes to the current arrangements and structures are required to achieve the benefits of regulating sonographers under the NRAS by adding the profession to the MRPBA, there will be some minor impact for industry. These changes are expected to be experienced by sonographers, employers and other users of medical ultrasound, consumers, Australia's governments, and the MRPBA. However, as described below, the impact of this change for these parties will mostly be neutral or beneficial when weighed against the ancillary improvements and efficiencies that accompany NRAS regulation of sonographers.

6.2 WHAT WOULD BE THE IMPACT FOR THE INDIVIDUAL?

6.2.1 THE EXPECTED IMPACT FOR MEDICAL SONOGRAPHERS?

COST IMPACT

- **Registration fees**

Currently, sonographers pay an annual fee of \$110 to be an accredited sonographer on the ASAR register. Sonographers must be on the ASAR register to be eligible to provide ultrasound examinations funded by Medicare. More than 70% of sonographers are employed by private diagnostic businesses, primarily providing Medicare-funded diagnostic imaging services. Therefore, most sonographers are currently paying this annual fee.

It is expected that regulating sonographers under NRAS would mean that sonographers would need to be registered with the MRPBA instead of ASAR to be eligible to provide Medicare-funded ultrasound examinations. The annual registration fee for the MRPBA is \$197 or \$128 for individuals based in New South Wales (NSW), and therefore there would be a yearly increase of ~\$87. 75.5% of ASAR accredited sonographers are not already registered with the MRPBA and will, therefore, likely have to pay a one-off application for registration fee of \$197.

These fees are not expected to be an issue as this cost is a small percentage of the average sonographer wage (over \$100,000 p.a. in 2019). In addition, in the 2020 ASA Member Survey, over half of the ASA membership stated national regulation with enforceable standards is one of the top two most critical changes needed for the profession. This is significant as more than 75% of Australian sonographers are ASA members.

ADMINISTRATIVE IMPACT

- **Continuous Professional Development (CPD)**

Sonographers are currently required to complete 60 hours of CPD every three years. The CPD must meet the categories of a broad framework specified by the ASAR, which has some reflective practice requirements. However, there are no minimum hours of CPD that must be completed each year and no conditions that the CPD directly relates to the sonographer's practice.

Under the MRPBA, sonographers would still be required to complete 60 hours of CPD every three years against a specified framework with some reflective practice. However, the MRPBA also requires at least 10 hours of CPD are completed per annum. And at least 35 of the 60 hours of CPD completed in the three years related to their current or developing scope of practice. Continuing professional development plays a role in protecting the public by ensuring that registered practitioners are up to date with the skills, knowledge and attributes for safe, contemporary practice in the profession. It is reasonable to require all health professionals to complete a minimum amount of CPD every year. Furthermore, sonographers in New Zealand are already required to meet the same CPD benchmarks as the MRPBA requirements.

Any impact these additional requirements may have on individuals is considered reasonable to improve the protection of the public by raising the minimum CPD requirements to a level consistent with industry expectations, something that is already in place in New Zealand.

- **Recency of practice requirement**

Recency of practice requirements typically specify the minimum number of hours that an individual must complete in their scope of practice to maintain their skill and competence and be eligible for annual registration. Currently, there are no recency of practice requirements for accredited sonographers to remain on the ASAR register.

Adding sonographers to the NRAS would introduce annual recency of practice requirements. To meet the MRPBA standards, practitioners must have practised within their scope of practice for at least 450 hours (approximately three months full-time) in the previous three years. This requirement is easily met by individuals that practice two or more days a week.

Some accredited sonographers on the ASAR register may not meet this minimum number of hours, as the requirements to remain on the register are the only completion of minimum CPD and payment of the annual renewal fee. These sonographers would be those that have taken a break from clinical practice greater than two years and nine months or who work less than one and a half days per week.

Individuals who have taken a break from clinical practice greater than two years and nine months and want to return to clinical practice would need to apply to the MRPBA to enter into a return to practice program. This may include a specified period of supervised practice and other requirements that the MRPBA determines are necessary to ensure that the individual is safe to practice competently and ethically.

There may be a small number of sonographers working less than one and a half days per week. These individuals would need to seek guidance from the MRPBA on meeting the recency of practice requirements.

Including sonographers in the NRAS may impact a small number of individuals who do not currently practice or who practice less than one and half days per week. However, this impact is appropriate to ensure that all sonographers are competent and fit to practice for the safety and protection of the public.

- **Professional Indemnity Insurance (PII)**

Currently, the only requirement for sonographers to hold PII is Principle 16 of the National Code of Conduct for Health Care Workers. However, the National Code is only in place in four of Australia's eight states and territories. Principle 16 requires that health care workers not registered under the NRAS must have appropriate indemnity insurance in place. However, unless something goes wrong, this requirement is not checked.

Including sonographers in the NRAS under the MRPBA will require all sonographers to have PII. In addition, sonographers would now be required to make a declaration as part of their annual renewal of registration that they will not practice unless they have appropriate PII arrangements in place.

There would be minimal impact as most sonographers already hold individual PII cover, with 75% of Australian ASA members already purchasing PII through the ASA in addition to a significant number of sonographers having PII provided by their employer.

- **Criminal history checks**

There is no current requirement for any criminal history check of a sonographer to be conducted to practice. Employers may voluntarily undertake pre-employment screening, paid for by the employer or prospective employee. However, there is no central record of the outcomes of these checks or how regularly or consistently this is done.

Including sonographers in the NRAS will require that all sonographers registered with the MRPBA for the first time (75.5% of the profession) will need a criminal history check done. The cost of this is included in the one-off application for registration fee. Sonographers would also now be required to declare any criminal history as part of their annual registration renewal. This new requirement would only impact sonographers with a criminal conviction serious enough that they are not considered suitable and safe to practice. If this were to occur, it is an appropriate impact for the benefit of public health and safety.

- **Complaints against sonographers**

Currently, complaints against sonographers are mostly made either to the individual's employer or to the state or territory health complaints entity (HCE).

Where a complaint is made to an employer, it is up to the employer what they do with the complaint. If they chose to ignore it, the sonographer would not be made aware of the potential issue with their practice or conduct.

If the employer records the complaint and takes action, any records remain with the employer. If the sonographer decides to leave that workplace or has their employment terminated, the cause of the complaint is not addressed, and the individual may continue risky or poor practice or conduct elsewhere.

There is significant variation on how state or territory HCEs handle complaints against sonographers. Four out of Australia's eight states and territories use the National Code of Conduct for Health Care Workers framework. The National Code's broad principles provide some guidance for complainants and sonographers on how the complaint will be assessed and responded to. However, HCEs typically can only mediate the issue or apply a sanction to prevent an individual from providing a health service.

However, this action is only appropriate where there is an immediate and severe risk to the public, which means that other lesser issues that could result in patient harm aren't addressed. And for the rest of the Australian states and territories, the HCEs have even less power to take action about complaints against sonographers.

In these situations, the sonographer would receive some correspondence to notify them of the complaint, noting the ability of the HCE to contact the sonographer is limited to the contact details provided by the complainant. The sonographer would be required to respond to the claim made by the complainant. But there is variation between states and territories on the timeframes that the sonographer must respond within and how long an investigation process could take. The four states that use the National Code post publicly the names of individuals with sanctions against them.

Currently, for the 24.5% of sonographers already registered with the MRPBA, complaints against these individuals can be received under the NRAS. However, as it is about a scope of practice outside of the NRAS, in most cases, this confuses the handling of the complaint, often affecting the timeliness of the investigation. Drawn out and unresolved complaints create stress for both the complainant and the sonographer. Particularly where the complaint ends up caught between the NRAS and HCE, with both stating that the other should investigate the complaint.

Regulating all sonographers under the MRPBA would introduce a nationally consistent and articulated process to receive and address complaints against sonographers. Under NRAS, complaints are referred to as notifications.

If included in the NRAS, sonographers would know that, following a notification, they will be contacted for information about their practice setting and the context of the notification. This will happen quickly as their current contact details will be available from the MRPBA.

The investigation process is clearly described, and the individual (complainant and sonographer) can know the possible outcomes of the notification. Importantly, if there is an issue with a sonographer, conditions can be placed on the individual's practice while training to correct the issue.

Including sonographers in the NRAS would also introduce mandatory notifications for sonographers. For the first time, concerns about a sonographer being impaired, intoxicated whilst practising, a significant departure from accepted professional standards, or sexual misconduct would have to be reported. These requirements would apply to all registered health practitioners (including other sonographers) and their workplaces.

Adding sonographers to the NRAS will require sonographers to participate more where complaints are made against them and compel them to raise issues themselves where they observe them in colleagues. However, sonographers will not negatively view this as there will now be a national framework that will clearly articulate the expectations and outcomes for individuals who receive a complaint against them. Furthermore, as demonstrated by the ASA member surveys, most of the profession is committed to introducing these changes to protect their patients and the standards and quality of the profession.

- **Transferring accredited sonographers to the MRPBA - grandparenting arrangements**

Including sonographers in the NRAS will require 75.5% of the individuals listed on the ASAR register to be newly registered with the MRPBA. In addition to recency of practice requirements, applicants for general registration with MRPBA must have completed an approved program of study.

Most sonographers listed on the ASAR register have completed an ASAR accredited course, the approved programs of study to become a sonographer. However, a small number of sonographers who joined the ASAR register when it was established in 2001 did not complete such a course and were grand-parented onto the ASAR register.

When the MRPBA was established, a period of grandparenting ensured that individuals who were legitimately practising before establishing the MRPBA were not unjustly disadvantaged because they had not completed an approved qualification. Individuals with older Australian qualifications, overseas qualifications, or practice experience could obtain registration via this pathway.

This provision was used when establishing most NRAS Boards and used most recently for the new Paramedicine Board.⁵⁰ A similar time-limited arrangement is expected to be put in place to add the sonographer profession to the list of professions regulated under the MRPBA. We expect that with these arrangements, all sonographers currently listed with ASAR will have equal opportunity to be registered under the MRPBA. Therefore, there would be no impact.

6.2.2 THE EXPECTED IMPACT FOR STUDENT SONOGRAPHERS

Currently, student sonographers participating in an accredited course of study are expected to be listed as an Accredited Student Sonographer with the ASAR register. This involves paying an annual fee of \$110 and providing evidence of their student status every year when they renew. The ASAR register is publicly available and searchable for all individuals, including students.

It is the individual student's responsibility to apply to, pay for and maintain their status as an Accredited Student Sonographer with the ASAR. However, there is no uniform or central assessment that all students are Accredited Student Sonographers. The system relies on the course provider or the workplace providing the supervised clinical training to check that the students are an Accredited Student Sonographer on the ASAR register.

Student sonographers remain on the register as long as they pay the annual registration fee, produce evidence of their student status every year and do not exceed the five-year maximum time allowed for student sonographers.⁵⁹

Under the NRAS, all students enrolled in an approved program of study or undertaking clinical training in a health profession must be registered as a student with their respective board. Students do not need to apply for registration, and there are no fees for registration. The education provider is responsible for ensuring that all students enrolled in an approved program of study or undertaking a period of clinical training are registered.⁶⁰

However, under law, the student register must be kept private. Students, health services or other entities seeking proof of a student's registration will need to contact the education provider with whom the student is enrolled to verify a student is registered.⁶¹

We expect that adding sonography to the list of professions regulated by the MRPBA would result in student sonographers no longer needing to pay for registration on top of their course fees. All student sonographers would be listed on the national student register, which must be kept private.

6.2.3 THE EXPECTED IMPACT FOR OVERSEAS TRAINED SONOGRAPHERS?

Currently, overseas qualified sonographers who want to work in Australia must first complete a skills assessment for migration purposes. This skills assessment is performed by the Australian Society of Medical Imaging and Radiation Therapy (ASMIRT). Through this process, ASMIRT assesses the overseas trained sonographers' qualifications and experience and issues a Certificate of Recognition in Ultrasound to successful applicants.⁶²

The Certificate of Recognition in Ultrasound and corresponding skills assessment letter are required for immigration purposes in the skilled migration program. Overseas qualified sonographers must also hold this certificate to apply to be on the Australian Sonographer Accreditation Registry, which is required to perform medical diagnostic ultrasound examinations under the Medicare system.

All sonographers with qualifications from outside Australia must undergo these individual assessments to practice in Australia.

The ASMIRT also provides skills assessment to determine suitability for skilled migration of overseas trained medical radiation practitioners (diagnostic radiographers, radiation therapists and other medical radiation practitioners) seeking to practice in Australia. Overseas trained medical radiation practitioners must also apply for registration with the MRPBA.

All overseas trained medical radiation practitioners must be assessed in this way, except for individuals who have current registration as a medical radiation practitioner in New Zealand.

Under the *Commonwealth Trans-Tasman Mutual Recognition Act 1997*, individuals with current registration as a medical radiation practitioner in New Zealand can apply directly for registration with the MRPBA without going through the overseas qualified practitioner process.⁶³

Similarly, the ASMIRT has 'pre-approved' recognition of New Zealand degree courses for medical radiation practitioners to accelerate the skill migration assessment of individuals from New Zealand seeking to practice in Australia.

Including sonographers in the NRAS as an MRPBA regulated profession should not materially change the processes and steps for most overseas trained sonographers seeking to migrate to and practice in Australia. However, it is expected to simplify the registration and migration of New Zealand sonographers to Australia. Including the profession in the NRAS would apply the existing Commonwealth Trans-Tasman Mutual Recognition processes already in place, which means that New Zealand sonographers could apply directly to the MRPBA for registration without the need to go through an assessment by the ASMIRT.

6.3 WHAT WOULD BE THE IMPACT FOR THE MARKETPLACE?

6.3.1 THE EXPECTED IMPACT FOR EMPLOYERS

In Australia, 72% of sonographers are employed by private diagnostic imaging businesses.⁵¹ Most commonly, sonographers are employed to perform medical diagnostic ultrasound services where other diagnostic imaging (e.g. x-ray) is provided or as part of the services at a specialist clinic (e.g. a cardiology practice).

In 2021, Australia's five largest private medical imaging companies accounted for 48% of the diagnostic imaging services market. The largest five diagnostic companies are the I-Med Radiology Network (15.2% market share), Sonic Health care (13% market share), Healix Ltd (9.2% market share), Integral Diagnostics (6.3% market share) and Capitol Health Limited (3.4% market share).⁶⁴ Small diagnostic imaging businesses, specialist clinics, private hospitals and public hospitals make up the other half of the businesses that employ sonographers.

- **Annual professional fees**

The 2019 ASA Employment and Salary Survey reported that approximately a third (35%) of private diagnostic imaging employers fully or partially fund the annual fee of \$110 that their sonographer employees need to pay to be an accredited sonographer on the ASAR register.

It is expected that regulating sonographers under NRAS would mean that sonographers would need to be registered with the MRPBA instead of ASAR to be eligible to provide Medicare-funded ultrasound examinations. The annual registration fee for the MRPBA is \$197, or \$128 for individuals based in NSW, and therefore there would be a yearly increase of ~\$87 per sonographer. This increase is not expected to be a significant issue for the one-third of the market that pays for their sonographer's annual registration. An additional \$87 per sonographer is a small percentage of the average sonographer wage (over \$100,000 p.a. in 2019). This increased registration fee will have no impact on the remaining two-thirds of the private diagnostic imaging employers who do not pay their employees' registration.

- **Criminal history checks**

Currently, sonographers are not required to complete a criminal history check to be listed on the ASAR registry, and there is no enforceable requirement for them to declare any criminal conviction. Some workplaces choose to undertake pre-employment criminal checks. Employers either do this at their own expense, require it to be provided by the sonographer or do not ask for it.

When health practitioners apply to be registered with the MRPBA, a criminal history check is completed as part of the registration process, the cost of which is covered as part of the application fee. Then MRPBA registered practitioners must declare any subsequent criminal convictions as part of their annual registration declarations. Individuals making a false declaration or failing to make a declaration can lose their ability to work as a registered practitioner.

Including sonographers in the NRAS under the MRPBA would mean that small and large private businesses employing new sonographers could be confident that sonographers registered with the MRPBA had not been convicted of a criminal offence that should reasonably prevent them from practising as a sonographer.

If businesses were paying for these criminal history checks, this change would also represent a cost-saving to the recruitment processes.

- **Enterprise bargaining agreements**

Large private diagnostic imaging businesses often employ their staff under an enterprise bargaining agreement (EBA). Many of these are registered with Australia's national workplace relations tribunal, the Fair Work Commission.⁶⁵ These EBAs state the entitlements and expectations of the staff under their employment.

Currently, many EBAs state that sonographers must be accredited with the ASAR to be eligible for employment with these large private diagnostic imaging businesses. The EBAs also include similar requirements for other health professions, including that other medical imaging professions must be registered with the MRPBA.

EBAs are large legal documents that often apply to a multi-profession workforce. As a result, there is a legal cost to produce the EBA and a time cost to negotiate the agreement with their employers and other parties (e.g. unions). Due to this cost, smaller private practices tend not to have EBAs, but rather employ sonographers under another employment contract, some of which will specify the requirement for sonographers to maintain membership with the ASAR.

It is expected that including sonographers in the NRAS would mean that sonographers would need to be registered with the MRPBA instead of ASAR. If this were to occur, large and small private businesses would need to adjust their EBAs and employment contracts to reflect this change.

As the stages to add a new profession to the NRAS take time, it is highly likely that any EBA or contract of employment changes could be achieved in the usual process of reviewing and updating these documents.

Furthermore, this change has the potential to simplify parts of the EBAs for large private diagnostic imaging businesses that employ sonographers and other diagnostic imaging professions as this change would result in all diagnostic imaging professions now having the same professional registration requirements, which is not currently the case.

- **Complaints handling and mandatory notifications**

Currently, if a patient has a complaint against a sonographer, the issue must first be raised with their employer. If the patient is not satisfied with the employer's response, the patient should be directed to progress the complaint to the state or territory health complaints entity (HCE), such as the Victorian Health Complaints Commissioner in Victoria, for example.

HCE's powers to investigate complaints and the associated processes vary between states and territories and depend on the local legislation. The four states (NSW, QLD, SA, VIC) that have implemented the National Code of Conduct for Health Care Workers have greater powers to investigate complaints and take action against sonographers and other unregistered health professions, such as applying sanctions to prevent individuals from working in health care. This is not the case for the other states and territories until they change their local legislation.

Similarly, employers have inconsistent obligations to report concerns about sonographers conduct and standards of practice to the state or territory HCE due to these differences in local legislation. This situation is confusing and challenging to navigate for private diagnostic imaging businesses – particularly the large private businesses that employ sonographers across multiple states and territories.

In contrast, the other medical imaging professions are under the NRAS. This means that notifications and complaints against the other medical imaging professions are managed through a national and clearly described notifications and complaints handling process. There are also enforceable national codes of conduct and standards of practice that state the minimum expectations of these registered practitioners. This national system also lists explicitly when it is mandatory to report a registered health practitioner and how to do this.

Including sonographers in the NRAS under the MRPBA would mean managing notifications and complaints would be the same for all medical imaging professions. It is expected that this would significantly reduce the administrative complexity that diagnostic imaging businesses currently have to navigate in their complaints handling processes and procedures.

Larger private businesses with multiple medical imaging professions employed in different states and territories should in particular experience a significant reduction in the administrative burden associated with complaints handling operating procedures by having all medical imaging employees under one regulation system.

- **Professional development**

In 2019 four out of five sonographers employed by a private diagnostic imaging business reported that their employer-provided some financial support to complete the continuous professional development (CPD) required to keep their membership with the ASAR.⁵¹

Sonographers must complete 60 hours of CPD every three years, as specified by the ASAR. However, there are no minimum hours of CPD that must be completed each year.

The MRPBA requires that registered practitioners complete 60 hours of CPD every three years, which is the exact requirement already in place for sonographers. However, the MRPBA also requires that at least 10 hours of CPD are completed per annum.

Including sonographers in the NRAS by adding the profession to the MRPBA would not change the amount of CPD sonographers need to complete every three years. However, it would require that sonographers complete at least 10 hours of CPD per annum.

This means that, in a three-year cycle, there would be no change for employers to the financial support that they already provide for sonographer CPD.

- **Medicare funding**

Small and large businesses that employ sonographers significantly rely on funding from Medicare towards the cost of ultrasound examinations performed by sonographers.⁶⁴

For businesses to access this Medicare funding, sonographers must be listed on the ASAR register. Medical imaging businesses must keep a record of their sonographer's ASAR member number to be eligible to claim Medicare payments for ultrasound examinations performed by sonographers.

It is expected that regulating sonographers under NRAS would mean that sonographers would need to be registered with the MRPBA instead of the ASAR to be eligible to provide Medicare-funded ultrasound examinations. Federal Government will need to make amendments to the Medicare legislation and regulations to recognise this change.

However, as the overall claiming requirements are expected to stay the same, including sonographers in the NRAS is not likely to have any impact on how private businesses claim Medicare reimbursement for sonographer performed ultrasound services.

6.3.2 THE EXPECTED IMPACT ON OTHER USERS OF MEDICAL ULTRASOUND

Sonographers are the primary users of ultrasound to provide medical diagnostic imaging. However, other health professionals also use ultrasound as part of their scope of practice.

Medical specialists, such as radiologists and obstetricians, use ultrasound within their scope of practice to inform their diagnosis and treatment. Some allied health professions, such as physiotherapists and nurses, may also occasionally use ultrasound for limited diagnostic purposes to complement their scope of practice.

Including sonographers in the NRAS will not impact other health professionals use of ultrasound. Statutory regulation of the profession will set national minimum standards for the sonography workforce and is not expected to restrict access to ultrasound technology in any way.

ORTHOPTISTS

A small number of orthoptists across Australia provide some ocular diagnostic ultrasound as part of their practice. To enable orthoptists to provide these ultrasound examinations under Medicare, the ASAR recognise orthoptists who hold registration with the Australian Orthoptic Board, which allows them to claim reimbursement for select diagnostic imaging ultrasound services.

There are just over 700 registered orthoptists.⁵³ At the beginning of 2019, there were twenty-one orthoptists on the ASAR list or 3% of the profession.

Including sonographers in the NRAS under MRPBA would not impact orthoptists' access to ultrasound services. However, any changes to Medicare regulations to reflect changed sonographer regulation would also need to support orthoptists to continue to provide patients with Medicare-funded ocular ultrasound examinations.

6.3.3 THE EXPECTED IMPACT ON CONSUMERS

Currently, there is low public awareness that sonographers are unregulated.

Market research in 2019 found that 93% of people surveyed believed sonographers were already regulated, and 82% were seriously concerned that sonographers are not already regulated. The same research found that 53% of those surveyed would now seek a second opinion or question the diagnostic quality of results now that they know that sonographers are not regulated.²

This means that as increasing numbers of people become aware that sonographers are not regulated, it is highly likely that more than half of these people will seek additional Medicare-funded ultrasound services.

Including sonographers in the NRAS under the MRPBA will prevent this issue from occurring and the associated cost for the Government and consumers.

In addition, regulating sonographers under the MRPBA is not expected to impact access to services or choice for consumers.

6.4 WHAT WOULD BE THE IMPACT FOR STATE AND TERRITORY GOVERNMENTS?

COST IMPACT

- **Including a new profession in the NRAS**

Including sonographers in the NRAS under the MRPBA won't require establishing a new National Board to represent that profession like paramedicine, the most recent health profession to be added to the NRAS.

It cost \$1.612 million to establish the Paramedicine Board of Australia.⁵⁵ All Australian Governments (federal, state and territory) contributed to these costs, which supported establishing new offices, information and communication technology, staffing, and other elements required for a new National Board.

This is the most practical solution. It regulates sonographers with the other medical imaging professions, with 24.5% of sonographers already registered with the MRPBA due to their qualification as medical radiation practitioners.

Adding sonographers to the existing MRPBA National Board means that Australian state and territory governments would not need to provide any establishment funding.

- **Changes to the Health Practitioner Regulation National Law**

Including a new profession in the NRAS requires changing the Health Practitioner Regulation National Law in each state and territory (National Law). To add sonographers to the NRAS, each jurisdiction would need to add the title of *sonographer* to the list of divisions under the existing MRPBA in their respective National Law legislation.

The National Law is not one Commonwealth law. The NRAS was implemented in most states and territories using an 'adoption of laws' model. Previous work.^{8,9} by the Australian Health Ministers' Advisory Council (AHMAC) and Deloitte Access Economics analysis.⁵⁴ estimated that the collective national cost of legislative change to add a profession to the NRAS is \$300,000–\$500,000. This cost reflects the work of government departments and parliamentarians to amend existing legislation. Therefore, the cost to each Australian government to amend their National Law to include the sonographer to the NRAS, would be around \$30,000 to \$55,000 for each state and territory.

Queensland is the lead jurisdiction for the National Law. Once Health Ministers agree to a change, the amendments are enacted by the Queensland Parliament. Western Australia must then pass legislation to amend its *Health Practitioner Regulation National Law (WA) Act 2010*. South Australia must enact a regulation to modify their *Health Practitioner Regulation National Law (South Australia) 2010*. For other jurisdictions, the amendments to the National Law passed by the Queensland Parliament are adopted and applied automatically, without the need for further legislative action.⁶⁶

This amount of money could be considered a small cost to increase the protection of the public from harm. However, there is an opportunity to avoid these costs. Progressive changes are being made to the National Law in response to the recommendations of the 2014-15 Independent Review of the NRAS.

Australian governments could agree to add sonographers to the NRAS as part of these changes. This approach would achieve the significant benefits of including sonographers in the NRAS without the costs stated above.

- **Complaints and notifications against sonographers**

Complaints and notifications against sonographers are handled mainly by the state or territory health complaints entities (HCE), such as the Queensland Health Ombudsman. As states and territories cover the operating cost of their respective HCEs, they currently bear the total cost of investigating complaints against sonographers.

In 2013, as part of the assessment of options for regulation of unregistered health practitioners, AHMAC estimated that the receipt, evaluation and investigation of a complaint or breach of code by an unregistered practitioner cost around \$18,850 per complaint.⁸

Including sonographers in the NRAS would represent a direct saving of at least this much for each notification against a sonographer for all states and territories except NSW and Queensland (QLD).

- **New South Wales and Queensland**

In NSW and QLD, notifications and complaints against NRAS registered professions are handled differently. In NSW, they are managed by 15 professional councils (supported by the Health Professional Councils Authority, or HPCA) and the Health Care Complaints Commission (HCCC).

In Queensland, the Office of the Health Ombudsman (OHO) receives the complaints. Most complaints about registered health practitioners are referred to AHPRA, except for the most serious complaints that would result in suspension or cancellation of a practitioner's registration.

QLD and NSW annually claim reimbursement from the AHPRA for investigations they complete about NRAS registered professions. For example, in 2020, AHPRA paid the NSW HPCA \$292,000 for managing complaints against MRPBA registered practitioners.⁶⁷

In this example, including sonographers in the NRAS would add approximately 1,630 NSW sonographers to the MRPBA, representing an increase of around 10% to the current number of practitioners registered with the MRPBA (16,683 in 2020). Assuming the same rate of notifications against sonographers, the NSW Government would receive an additional \$29,000 handling from the AHPRA for managing these complaints.

Adding sonographers to the professions regulated by the MRPBA would shift the financial burden of notifications against sonographers from state and territory government budgets to the self-sustaining model under the NRAS, where the annual registration fees cover the cost of complaints handling. This is estimated to save around \$18,850 per complaint for most states and territories and activity-based reimbursement for NSW and QLD expenses.

- **Professional development and maintenance of professional registration**

Approximately a quarter of sonographers employed in public hospitals receive funding towards annual registration costs from their employer.⁵¹ This is a yearly cost of \$110 per sonographer for the few public hospitals paying their sonographers' annual fee to remain on the ASAR register.

It is expected that regulating sonographers under NRAS would mean that sonographers would need to be registered with the MRPBA instead of ASAR to be eligible to provide Medicare-funded ultrasound examinations. The annual registration fee for the MRPBA is \$197 or \$128 for individuals based in NSW, and therefore there would be a yearly increase of ~\$87 for the quarter of state and territory health services that pay the registration fees.

Currently, almost all public health services provide support to employees to complete their continuous professional development (CPD) requirement for the health professionals to maintain their annual registration. This support is provided as both reimbursement for at least some of the cost of the CPD and paid leave to complete the CPD.

Sonographers must complete 60 hours of CPD every three years, as specified by the ASAR. However, there are no minimum hours of CPD that must be completed each year. Under the MRPBA, sonographers would still be required to complete 60 hours of CPD every three years. However, the MRPBA also requires at least 10 hours of CPD are completed per annum.

This means that, in a three-year cycle, there would be no change to the cost of supporting their sonographers' completion of CPD.

ADMINISTRATIVE IMPACT

- **Complaints handling**

Most complaints and notifications against sonographers are handled by the health complaints entities (HCE) in the respective state or territory, such as the Victorian Health Complaints Commissioner. The HCE's powers of investigation and ability to take action on a notification depends on the local legislation in place.

In addition to this, a small number of notifications about sonographers can be investigated by AHPRA and the registration boards. This is possible where the sonographer is one of the 24.5% already registered with the MRPBA as a medical radiation practitioner because they also hold a qualification in another medical imaging profession. This can cause confusion resulting in the HCE and AHPRA having to correspond with each other to determine who will investigate the complaint.

HCEs have limited actions that they can impose on unregulated professions like sonographers. The potential outcomes are typically limited to mediation, interim sanctions on practice if there is a significant public risk, and permanent sanctions to prevent an individual from providing any health service. Generally, for sanctions to be put in place, serious harm has already happened to a patient.

The four states and territories (NSW, QLD, SA, VIC) that have implemented the *National Code of Conduct for Health Care Workers* maintain a public register of health professionals with sanctions against them. These registers are chronological lists of health workers not included in the NRAS with no national coordination or standardisation of the professional titles used or type of information listed on the register.

Including sonographers in the NRAS as a profession under the MRPBA would mean that notifications and complaints against sonographers would be managed through national notifications and complaints handling systems and not by separate state and territory government agencies. It would also introduce national codes of conduct and standards of practice for sonographers through the MRPBA, which would be used to assess notification and complaints against sonographers.

For most states and territories (except NSW and QLD), this would shift the administrative burden of managing complaints against sonographers off the state and territory government, as it would now be managed through the AHPRA and the MRPBA. It would also mean that any conditions or restrictions to a sonographer's practise would be captured on the National Register of practitioners instead of each state and territory needing to add and track this information locally.

- **Complaints handling - New South Wales**

In NSW, AHPRA only manages investigations about specific offences such as falsely claiming to be registered and mandatory notifications. All other complaints and notifications are managed by the NSW HCE, the Health Care Complaints Commission, and the fifteen professional councils supported by the Health Professional Councils Authority (HPCA). Including sonographers in the NRAS under the MRPBA would not significantly change how complaints handling is administered in NSW. However, it would introduce new codes of conduct and standards of practice for sonographers through the MRPBA, which NSW could now use to assess notification and complaints against sonographers in the state.

- **Complaints handling - Queensland**

In Queensland, the state HCE, the Office of the Health Ombudsman (OHO), receives all complaints about health professionals. The OHO investigates complaints about unregistered health practitioners, such as sonographers. For NRAS registered health practitioners, the OHO determines which complaints they will investigate or refer to AHPRA for assessment and investigation by a National Board.

Generally, complaints about registered health practitioners will be referred to AHPRA except for serious complaints such as those involving allegations of professional misconduct or behaviour that would result in suspension or cancellation of a practitioner's registration.

Including sonographers in NRAS under the MRPBA would not significantly change how complaints against health practitioners are administered in Queensland. However, it would introduce new codes of conduct and standards of practice for sonographers through the MRPBA, which Queensland would use to assess notification and complaints against sonographers in the state. In addition, there would be a portion of complaints against sonographers that the OHO would refer onto the MRPBA for investigation – reducing the administrative burden on the state for these cases.

Overall, including sonographers in the NRAS by adding the profession to the MRPBA would remove the administrative burden of managing complaints against sonographers from most state and territory agencies.

For NSW and QLD, this change will directly reduce administrative responsibility and introduce new codes of conduct and standards of practice for sonographers, which will assist the state HCEs in undertaking their investigations, further reducing the overall administrative burden for these states.

- **Enterprise bargaining agreements**

For most state and territory governments, there will be no need to change the address enterprise bargaining agreements (EBA) for sonographers employed in public health services because sonographers are already recognised explicitly as a profession in the EBA or are employed under a group EBA with other health professions.

However, in NSW, sonographers are employed under multiple EBAs based on their undergraduate qualification. In 2018, just under five hundred sonographers were employed at NSW Health services. 80% were employed under the Health Employees Medical Radiation Scientists (State) Award,⁶⁸ and 20% under the NSW Health Employees (State) Award.⁶⁹ Sonographers employed under the NSW Health Employees (State) Award are paid 26% (or \$596.50 per week based on full-time employment) less than the sonographers employed under the Health Employees Medical Radiation Scientists (State) Award.

Completing an accredited postgraduate qualification is now the minimum level of education to become a sonographer. Adding sonographers to the NRAS as a profession under the MRPBA would likely recognise the same benchmark to register someone as a sonographer.

This change could support a case for all sonographers to be employed under a single EBA in NSW. If this happens, the NSW Government may need to explore new EBA arrangements for its medical imaging workforce. However, it would be up to the NSW Government to determine the appropriate course of action to negotiate future EBA arrangements for sonographers.

As the stages to add a new profession to the NRAS take time, it is highly likely that any negotiations of a single EBA for NSW sonographers could be achieved in the usual process of reviewing and updating the state EBA if the NSW Government determines it is necessary.

For other states and territories, including sonographers to the NRAS is not expected to impact current or future EBA discussions with their public health sonographer workforce.

6.5 WHAT WOULD BE THE IMPACT FOR THE FEDERAL GOVERNMENT?

COST AND ADMINISTRATIVE IMPACT

- **The Register of Accredited Sonographers**

Sonographers must be suitably qualified, involved in a relevant and appropriate Continuing Professional Development program and be on the Register of Accredited Sonographers held by the Commonwealth Government Services Australia to perform medical ultrasound examinations under Medicare on behalf of a medical practitioner.⁷⁰

The Australian Sonographer Accreditation Registry maintains the Register of Accredited Sonographers on behalf of the Federal Government, and reports updated lists of sonographers who continue to meet these requirements to Services Australia. The Federal Government is responsible for overseeing the Register of Accredited Sonographers, including meeting any direct or administrative costs involved to deliver on this responsibility.

If sonographers were added to the list of professions regulated by the MRPBA, the Government would have the opportunity to save money by recognising MRPBA registered sonographers rather than the ASAR. If this were to occur, the Government would save the funding currently spent on monitoring the ASAR activity and reports or any other administrative costs now incurred in maintaining a Register of Accredited Sonographers.

Legislation change would be needed. But this could be done as part of the usual business of government in a future planned amendment to the Private Health Insurance Act and the Diagnostic Imaging Services Table (DIST) and associated regulations.

- **Including a new profession in the NRAS**

Including sonographers in the NRAS under the MRPBA won't require establishing a new National Board to represent that profession like paramedicine, the most recent profession to be added to the NRAS.

It cost \$1.612 million to establish the Paramedicine Board of Australia.⁵⁵ All Australian governments (federal, state and territory) contributed to these costs, which supported establishing new offices, information and communication technology, staffing, and other elements required when creating a new National Board.

Including sonographers in the NRAS under the MRPBA is the most practical solution. It regulates sonographers with the other medical imaging professions, noting 24.5% of sonographers are already registered with the MRPBA due to also holding qualifications to be a medical radiation practitioner.

Adding sonographers to the existing MRPBA National Board means that Australian governments would not provide establishment funding.

All National Boards are expected to cover the ongoing costs of their obligations and functions from the annual professional registration fees. We expect this to be the same for MRPBA if sonographers are added to the list of professions they represent.

- **Sonographer workforce data collection**

The provision of medical diagnostic ultrasound examinations performed by sonographers has increased exponentially over the last few decades due to the increased use and application of diagnostic ultrasound.⁷¹ As this growth is expected to continue, it will be increasingly crucial for the Government to have high quality sonographer workforce data to inform future policy and expenditure supporting equitable access to medical diagnostic ultrasound for all Australians.

Despite holding the Register of Accredited Sonographers, the Commonwealth Government does not have complete national sonographer workforce data as sonographers only need to be registered with ASAR if they are providing Medicare-funded services. The Australasian Sonographers Association (ASA) collects some workforce data, which is provided to the Government. However, with 70% of Australian sonographers holding ASA membership, this is not 'whole-of-workforce' data. AHPRA and the National Boards, in conjunction with the Australian Government Department of Health, collect information required for workforce planning through the registration renewal process.⁷² This data is known as the National Health Workforce Dataset (NHWD).⁷³

The NHWD includes information on a range of registration and workforce data, such as demographics, specialties, hours worked, the scope of practice and area of practice. As a significant component of the integrated health workforce data tool, the NHWD informs health workforce supply and demand projections by each state and territory to identify potential gaps and oversupply in Australia's health workforce at local and national levels and inform new government policy and initiatives.

Including sonographers in the NRAS under the MRPBA will result in sonographer workforce data being captured as part of the NHWD, providing the Government with high quality sonographer workforce data to inform future initiatives and funding decisions.

6.6 WHAT WOULD BE THE IMPACT ON THE NATIONAL SYSTEM?

6.6.1 IMPROVED PUBLIC CONFIDENCE IN HEALTH CARE AND HEALTH CARE REGULATION

When a patient contacts AHPRA to raise a concern about the behaviour or quality of service provided by a sonographer, they will usually be told that sonographers are an unregulated profession. This will come as a shock to the patient, causing further distress to the individual who is already upset enough to be registering a complaint.

Survey Matters undertook market research in 2019², which substantiates this shock. The research found that 93% of Australians surveyed believed sonographers were already regulated, and 82% were seriously concerned that sonographers are not already regulated.

The same research found that 53% of those surveyed would now seek a second opinion or question the diagnostic quality of results now that they know that sonographers are not regulated.

Including sonographers in the NRAS under the MRPBA will prevent these concerns and unnecessary distress. This change will introduce an increased level of structure, visibility, and rigour in the regulation of sonographers by including the profession in the regulatory systems that already apply to other medical imaging professions.

This change also meets patients' expectations of the protections that should be in place for them when they access medical ultrasound examinations provided by a sonographer. Which, in this case, increase the public confidence in the health care systems and health care regulation.

6.6.2 THE IMPACT TO PROFESSIONALS WHO ARE REGISTERED IN TWO DIFFERENT NRAS BOARDS

In 2019, 4% of the Australasian Sonographer Employment and Salary Survey respondents stated they maintain accreditation with an NRAS Board other than MRPBA. And 2% of respondents had first completed a nursing qualification before later training to become a sonographer.⁵¹ It is estimated that around 250 sonographers are currently maintaining registration with another National Board under NRAS, mainly either the Physiotherapy Board or the Nursing and Midwifery Board.

At the moment, if a nurse or physiotherapist is also practising as a sonographer, they would be paying both the annual fee to be recognised on the ASAR list of sonographers and the yearly fee to be a registered practitioner with the respective National Board, known as dual registration.

Recently this arrangement was tested when paramedics were added to the NRAS. Nurses and other registered professionals who also work as paramedics are now required to hold dual registration, paying the annual registration fee for both professions in which they practice (e.g. being registered with the Nursing and Midwifery Board and the Paramedicine Board,⁵² paying both registration fees).

If sonographers were included in the NRAS under the MRPBA sonographers, it is expected that the same arrangements of dual registration would be in place. These sonographers would need to pay for annual registration with the MRPBA to be a sonographer and the yearly fee to the other national registration board for their second area of practice.

However, this doesn't represent much of a change to what is currently in place for this cohort of sonographers. Being under the one national system could simplify the administration of these dual practitioners' registration.

6.6.3 THE IMPACT OF SONOGRAPHER REGULATION ON THE MRPBA

Including sonographers in the NRAS under the MRPBA is most likely to benefit the MRPBA and may enhance the Board's self-sufficiency through increased numbers of registrants.

As an established board, the MRPBA already covers the cost of regulation through the registration fees imposed upon the 17,844 registered practitioners it is already responsible for.⁴⁹ Adding over five thousand sonographers will increase the number of MRPBA registered practitioners by 30% – significantly increasing the Board's available funding to cover its regulatory functions should sonographers be added as this change would increase the Board's annual fee-based revenue by around 30%.

Historically, the MRPBA has supported this model for sonographer regulation. In October 2010, the Council of Registration Boards for Medical Radiation Practitioners (which became the Medical Radiation Practice Board of Australia) wrote to the Australian Health Workforce Ministerial Council requesting sonographers be one of the professions to be included on the National Register of Medical Radiation Practitioners. In this request, they noted concern about the profession of sonography not being regulated, as it is a 'fast growing area that represents a significant public safety risk'.³

Unlike other medical imaging professionals, sonographers are not regulated under the MRPBA, which puts the public's health and safety at risk. This is confusing for patients, employers and the general community about what standards apply to sonographers and where they can go to raise a concern or complaint about a sonographer. Currently the MRPBA regularly

receives complaints about sonographers that they are unable to investigate. Empowering MRPBA to receive complaints about all sonographers significantly benefits patients and patient protection and would remove the system 'red tape' hampering the MRPBA in these situations.

6.7 RECOMMENDATION

The sonographer profession is unregulated and this has the potential to harm the Australian public.

With increasing utilisation of medical diagnostic ultrasound in the diagnosis, management and treatment of health conditions, there are real and tangible risks to the health and safety of the public whilst the sonographer profession remains unregulated.

This submission provides a significant body of evidence of patients with compromised quality of life and early death due to the activities of sonographers. The most severe and common patient harm results from issues caused by a lack of competency. This is something that can only be effectively addressed through the application of enforceable national minimum sonographer competence and practice standards under national regulation. There is a strong case that including the profession in the NRAS by adding sonographer as a described profession and division under the existing MRPBA is in the public interest.

With 24.5% of sonographers already registered with the MRPBA due to their first qualification, adding sonographers to the list of professions regulated by the MRPBA will protect the public. It reduces the red tape and inefficiencies in the system that cause confusion and distress for patients and unnecessary costs to Australian governments and agencies. This approach of being added to an existing board also removes the usual cost of establishing a new board and shifts the cost burden of complaints handling from the states and territories back to the profession.

Health Ministers have a real opportunity to significantly increase the protection of the public by adding a new professional title to an existing board under the NRAS.

All Health Ministers are being asked to agree that:

- **adding the sonographer profession to the existing Medical Radiation Practice Board of Australia is needed to protect the public interest**

and

- **refer the submission to Health Chief Executives Forum for preliminary assessment.**⁵⁸

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APPENDIX 1: CASE EXAMPLES – MEDICAL PROFESSIONALS (SELF-REPORTED)

A number of self-reported case examples have been provided to the Australasian Sonographers Association outlining poor or detrimental sonographer practice or conduct on the understanding they are fully de-identified. Numerous cases contain sensitive information and are not publicly available. Ninety-five of these cases relate to incidents that occurred in the five years to 2020. Extended case details can be made available on request for the purposes of assessing the nature and severity of risks associated with the activities of the sonographer profession and the expected impact of regulation.

A summary of each case is outlined below.

REF	SUMMARY	HARM TO PUBLIC HEALTH AND SAFETY	HOW WOULD NRAS LIMIT OR MITIGATE RISK						
			Nationally enforceable minimum standards of practice (inc. recency of practice reqs)	Centralised reporting of incidents	Enforceable mandatory notification requirements	National complaints handling with consistent processes	Impartial committee of peers to review a sonographer's practice where issues are raised	Enforceable supervised training, conditions on practice, and other practice improvement	Authority to suspend or stop sonographer from further practice
MISSED OR MISDIAGNOSIS									
2	Enlarged lymph node misdiagnosed as DVT: Patient B underwent a leg vein scan and was misdiagnosed with a DVT. As a result, Patient B was started on blood-thinning medications that led to complications. Due to the issues, the images and sonographer's worksheet were then reviewed. The sonographer's failure to identify the abnormality led to an incorrect diagnosis being reported by the reporting medical practitioner.	Physical: Patient B suffered complications from the incorrectly prescribed blood-thinning medication		X		X		X	
7	Missed diagnosis of congenital diaphragmatic hernia: Patient G underwent a second and third-trimester scan; both reported that no abnormalities were detected. The baby was born and discharged from the hospital but subsequently passed away. The autopsy found that the death was due to a diaphragmatic hernia that was not detected on the ultrasounds.	Physical: The baby died soon after birth. Failure to diagnose this condition in pregnancy meant medical treatment was not accessed, significantly reducing the baby's likelihood of survival Emotional: Significant distress for the parents				X	X	X	

REF	SUMMARY	HARM TO PUBLIC HEALTH AND SAFETY	HOW WOULD NRAS LIMIT OR MITIGATE RISK						
			Nationally enforceable minimum standards of practice (inc. recency of practice reqs)	Centralised reporting of incidents	Enforceable mandatory notification requirements	National complaints handling with consistent processes	Impartial committee of peers to review a sonographer's practice where issues are raised	Enforceable supervised training, conditions on practice, and other practice improvement	Authority to suspend or stop sonographer from further practice
4	Missed diagnosis of breast cancer: Patient D underwent a breast ultrasound. The patient had been scanned six months prior, with results reported as normal. The rescan revealed advanced cancer which had enlarged and spread to the patient's axillary lymph nodes. The sonographer's failure to identify the abnormality on the images taken six months earlier led to an incorrect diagnosis being reported by the reporting medical practitioner at the time.	Physical: Delayed diagnosis of high-grade cancer resulted in more complex and invasive surgery Emotional: Greater psychological impact due to lack of early diagnosis and more complex treatment	X	X		X	X	X	
5	Missed diagnosis of hip dysplasia and dislocation: Ultrasound examination of Patient E missed identification of one dysplastic and one dislocated hip. These issues were identified in a second ultrasound some months later. The late diagnosis meant an X-ray was required (resulting in otherwise avoidable irradiation of the patient), followed by surgery and a full pelvis cast, which had to be worn for many months.	Physical: More extensive and invasive treatment, including surgery and a full pelvis cast Emotional: Significant distress to patient and parents/carers Economic: Possible additional costs	X	X		X	X	X	
6	Viable pregnancy misdiagnosed as miscarriage: Patient F received an ultrasound examination that wrongly identified a miscarriage which indicated that the patient should undergo a dilation and curettage (D&C). Patient F felt they were still pregnant and refused the D&C. A follow-up ultrasound a week later detected a viable pregnancy.	Emotional: Significant distress. Had the patient followed the initial medical advice it would have resulted in the incorrect termination of a viable pregnancy	X	X		X	X	X	

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9	Incorrect diagnosis of DVT above the knee: Patient I was incorrectly started on blood-thinning therapy post-operation after a sonographer incorrectly detected an abnormality which was reported by a reporting medical practitioner as a DVT. The sonographer in question continued practising and supervising students until a second incident occurred. The sonographer was offered reduced scope of practice; however, took up employment elsewhere instead.	Physical: Elderly patient placed at unnecessary risk from blood thinners. Blood thinners carry a risk of bleeding, which is significant in elderly patients or those at risk of falls	X	X		X	X	X	
10	Delayed diagnosis of significant neural tube defect (spina bifida): Patient J had a high risk for neural tube defect. As a result, Patient J received two morphology ultrasound scans, at 20 and 24-week gestation. Both scans were undertaken by the same sonographer and failed to detect that the baby had a significant neural tube defect. The missed diagnosis was influenced by the sonographer's failure to follow the standard protocol for assessment of the fetal spine. Patient J's growth scan at 30-week gestation by a different sonographer immediately identified spina bifida. As a result of the condition, the child required neonatal surgery and is likely to have a considerable disability requiring lifelong medical and allied health care.	Physical: The delayed diagnosis significantly reduced medical options available and provided little time to prepare for surgery and ongoing management for the baby Emotional: Parents were highly distressed. They had initially been told their baby was perfect	X			X	X	X	

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13	Ongoing failure in practice standards resulting in misdiagnosis: Ongoing and persistent issues were identified concerning the quality of ultrasound examination performed by Sonographer M. Despite additional supervised training in the workplace, Sonographer M continues to underperform, impacting patients.	Physical: Patients are receiving technically and clinically poor quality examinations; some have been identified as requiring rescanning	X	X	X	X	X	X	X
14	False-positive kidney abnormality causing distress to pregnant patient: Sonographer N incorrectly indicated an issue with a baby's development (kidneys) at the 12-week scan. Sonographer N also provided their opinion directly to the patient at the examination, which is not usual practice. Typically, any abnormality should be checked by another qualified sonographer or doctor. A follow-up scan by a different sonographer found that there were no abnormalities. The patient made a complaint to the practice but received no response or known outcome.	Emotional: Significant patient distress due to incorrect diagnosis and failure to respond to a complaint	X	X		X		X	

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15	Missed ectopic pregnancy resulting in hysterectomy: Sonographer O didn't undertake proper protocol and incorrectly indicated a viable embryo – failing to detect the ectopic pregnancy, which is a life-threatening condition. This resulted in a missed diagnosis, delayed medical response and failure to deploy early treatment options. The patient required a hysterectomy, causing significant distress as the patient was planning on having children in the future.	Physical: Avoidable surgery (hysterectomy) was required Emotional: Major psychological trauma	X	X		X	X	X	
16	Lack of knowledge contributing to the missed diagnosis: Sonographer P failed to identify thrombus. By chance, the error was identified and rectified by another sonographer who reviewed the images. The risk of Sonographer P's inability to identify this condition remains for future patients.	Physical: In this instance, the patient was not aware of misdiagnosis and the error was rectified; however, the risk remains for future patients	X	X		X	X	X	
22	Fetal distress incorrectly reported by locum: Sonographer V indicated pregnancy issues for multiple patients, resulting in repeated scans and patient anxiety. Subsequent ultrasound examinations carried out on both patients reported normal findings. These false findings wasted the obstetrician's time to review incorrect findings, as well as causing unnecessary and avoidable distress for patients. Sonographer V moved on to another workplace.	Emotional: Increased patient anxiety and inconvenience Economic: Repeated examinations	X	X		X	X		

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18	Lack of anatomical knowledge and scanning ability resulted in misdiagnosis: A sonographer wrongly identified a cardiac abnormality, when there was no abnormality. This resulted in an incorrect diagnosis being reported by the reporting medical practitioner, with Patient R subjected to painful treatment (compression) which could have resulted in thrombosis.	Physical: Unnecessary and unpleasant treatment was provided, which put Patient R at medical risk		X		X	X	X	
20	Large ovarian cyst missed during examination: Patient T underwent a pelvic ultrasound to follow up an ovarian cyst before surgery. The sonographer failed to identify the cyst during an external and internal scan. The following day, they underwent a further scan by a different sonographer, which identified a large and extended cyst.	Physical: There was potential for Patient T to have missed necessary surgery and treatment	X	X		X	X	X	
26	Twin pregnancies incorrectly recorded: Two separate patients who attended Clinic Z were incorrectly reported as having a singleton pregnancy instead of twin pregnancy, as a result of a sonographer's failure to correctly identify the twin pregnancies. The twin pregnancies were not identified until the third trimester for each patient following ultrasound examinations at a different clinic. This issue was raised with Clinic Z; however they did not acknowledge the error.	Physical: The patients were not provided with appropriate monitoring or management plans for a twin pregnancy, putting the mothers and babies at potential risk Emotional: Shock and distress, and distrust in medical professionals	X	X		X			

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28	Missed diagnosis post-surgery contributing to premature death: Patient AB was recovering after surgery for a partial liver removal. When they began to decline, the attending sonographer undertook an ultrasound examination, recording no abnormalities. A subsequent ultrasound examination identified a problem. Patient AB underwent further surgery. However, the patient died three days later.	Physical: Delayed diagnosis and action either contributed to or resulted in patient death	X				X	X	
29	Missed diagnosis of significant fetal anomalies at screening exam: First-trimester screening ultrasound of Patient AC failed to identify multiple serious fetal abnormalities, which are reasonably expected to be recognised in this ultrasound examination by the sonographer. They were later identified at the 20-week scan, at which time Patient AC required urgent medical termination of the pregnancy.	Physical: Required later-term termination of pregnancy Emotional: Significant distress for first-time parents Economic: Financial outlay for the ineffective screening exam	X	X		X	X	X	
37	Missed cardiac anomalies resulting in major stroke: Patient AK with cardiac issues underwent an ultrasound that was reported as 'normal' by the reporting medical practitioner, as a result of the sonographer's failure to detect the abnormality. Patient AK was sent home and soon after proceeded to have a major stroke. After treatment in the hospital, Patient AK required significant rehabilitation due to injury caused by the stroke.	Physical: Missed diagnosis resulting in major stroke Emotional: Significant emotional distress; requirement for rehabilitation and life adjustments		X		X	X	X	

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38	Incorrect information recorded, resulting in missed abnormalities: Sonographer AL entered incorrect information into obstetric screening software, incorrectly recording a low patient risk for fetal abnormalities. Subsequent ultrasound examinations detected placental and fetal abnormalities. However, due to the late detection, and resulting diagnosis, some medical options were no longer available to the patient. Meaning the patient was not able to make a fully informed decision on the outcome of their pregnancy.	Physical: The late diagnosis limited the medical options available to the patient Emotional: Distressing due to delayed diagnosis	X	X		X		X	
44	Misdiagnosis of cardiac condition contributing to premature death: A complicated case, which involved multiple studies, failed to detect abnormalities and therefore an incorrect diagnosis was reported. Patient AR required urgent surgery when the issues were identified. Patient AR did not recover and died shortly after this. The death was directly attributable to the delay in accessing treatment.	Physical: Critical surgery delayed resulting in premature death Emotional: Significant distress and longer-term impact on family		X		X	X	X	X
39	Failure to follow guidelines resulting in an avoidable miscarriage: Sonographer AM failed to follow industry guidelines when undertaking a morphology ultrasound scan. This resulted in an inaccurate worksheet, on which the reporting medical practitioner determined there were no issues. Three days later, the patient went into spontaneous premature labour, and the baby died. The miscarriage could have been avoided had guidelines been followed.	Physical: Avoidable death of the baby due to spontaneous premature birth Emotional: Significant emotional distress of the patient and family	X	X		X	X		

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45	Misdiagnosis of a cardiac condition with potential for incorrect heart surgery: Patient AS was scheduled for open-heart surgery because an ultrasound examination identified a cardiac abnormality which was reported by the reporting medical practitioner as requiring heart surgery. The patient developed appendicitis. In preparation for an emergency appendectomy, Patient AS's heart was re-examined by another sonographer who found no abnormalities, which led to the diagnosis of the cardiac condition as being incorrect.	Physical: Potential for significant harm with unnecessary open-heart surgery Emotional: Distress and confusion for the patient		X		X	X	X	
40	Incorrectly characterised twin pregnancy: During the first-trimester scan of Patient AN, a twin pregnancy was incorrectly stated as having two placentas. Instead, the twins were sharing a single placenta – increasing the risk to Patient AN and the babies. The late identification of a single placenta, resulting from a sonographer's failure to identify the abnormality, resulted in deficient early and ongoing monitoring, contributing to the death of one twin.	Physical: Potentially avoidable death of a twin Emotional: Highly distressing for the patient and family	X			X	X	X	
41	Cardiac anomalies missed in pregnancy exam: Poor quality ultrasound of Patient AO and failure to adhere to guidelines resulted in multiple cardiac abnormalities going undetected during a typical obstetric ultrasound. This resulted in a missed diagnosis and postnatal complications for the baby, who required emergency surgery at birth, which could have been avoided.	Physical: Postnatal complications for the baby due to heart defects and high risk of infant death Emotional: Significant distress for patient	X						

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42	Poor quality scans, resulting in multiple cases of missed diagnosis: Due to the poor quality of Sonographer AP's ultrasound examinations, a reporting medical practitioner refused to report on Sonographer AP's work. An audit found the poor quality of Sonographer AP's work resulted in multiple missed diagnoses over some years.	Physical: Risk of missed diagnosis Economic: Repeated examinations	X	X	X		X	X	X
43	Ongoing underperformance by a sonographer, including missed diagnosis of a major fetal anomaly: Sonographer AQ had not accurately captured relevant patient information and had performed an inadequate ultrasound examination resulting in a major fetal abnormality not being identified. The missed condition was not diagnosed until birth when the baby required immediate medical intervention. The child had numerous issues and required multiple surgeries. Concerns about the quality of examinations undertaken by Sonographer AQ had been raised several times across several years.	Physical: Baby was born with a major fetal anomaly requiring multiple surgeries and ongoing care. The missed diagnosis meant informed decisions could not be made, pregnancy was not appropriately monitored, and delivery did not take place in a suitably equipped hospital Emotional: Significant distress for the parents, who were not given a chance to make informed decisions	X	X	X	X	X	X	X

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46	Poor quality exam resulting in the missed diagnosis of a cardiac condition: Patient AT, presenting with chest pain, received a cardiac ultrasound examination which was indicated as normal by the sonographer and cardiologist. After two weeks in hospital, Patient AT was examined by a different sonographer who identified significant abnormalities that were diagnosed by the reporting medical practitioner as requiring surgery. Review of the initial images showed the pathology was present and identifiable in the previous examination.	Physical: Significant risk to the patient's health, had they missed surgery and treatment, and unnecessary extended hospitalisation	X	X	X	X	X	X	
47	Breast lesion mistakenly identified: Sonographer AU undertook an ultrasound examination recording a breast lesion. The patient was diagnosed on this information and referred to a specialist doctor for a biopsy. However, the pre-biopsy ultrasound examination could not find the lesion, identifying that the initial information was misrecorded by Sonographer AU.	Emotional: Unnecessary emotional trauma Economic: Additional costs	X	X		X		X	
50	Viable pregnancy misdiagnosed as ectopic pregnancy: Patient AX received an ultrasound examination which indicated a possible ectopic pregnancy at ten weeks. However, when a second sonographer examined Patient AX, it was clear the patient had a viable intrauterine pregnancy, not ectopic, which resulted in a corrected diagnosis.	Emotional: Confusion and distress over the welfare of the patient and baby Economic: Additional cost of multiple scans and unnecessary hospital admission	X	X		X		X	

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51	Missed cardiac condition possibly contributing to a stroke: Patient AY received a cardiac ultrasound examination to assist with the diagnosis of a possible stroke. The sonographer undertaking the examination detected some abnormalities. An earlier ultrasound had been performed two years prior and had been reported as normal. A retrospective review of the previous ultrasound images indicated there was already evidence of cardiac issues at that time.	Physical: The patient suffered a stroke, which could have been avoided	X	X		X	X	X	
54	Missed ectopic pregnancy resulting in surgery and ICU: Patient BB underwent a first-trimester scan which was reported as normal. Three days later, Patient BB presented to the hospital very unwell and in pain. A subsequent ultrasound examination undertaken by a sonographer detected an ectopic pregnancy, and resulted in a correct diagnosis. Patient BB was critically ill and required immediate surgery to remove a fallopian tube.	Physical: Emergency hospital admission and surgery was required; Patient BB was so unwell, they were at risk of dying Emotional: Psychological trauma	X	X	X	X	X	X	
52	Missed cardiac condition resulting in delayed treatment: Patient AZ underwent an initial stress echocardiogram which was recorded as unremarkable. Due to ongoing symptoms, the patient was sent for a second echocardiogram, where a severe obstruction was identified. Review of previous images identified visible obstruction; however, the blood flow was not measured correctly, investigated thoroughly or adequately recorded. If the initial scan had correctly detected the problem, Patient AZ might have avoided the second test saving time, reducing risk and receiving earlier treatment.	Physical: The patient underwent an unnecessary test with associated risk, and experienced delayed treatment	X	X		X	X	X	

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53	Poor examination contributing to heart attack: Patient BA was admitted to hospital with a heart attack. An echocardiogram indicated a severe obstruction and narrowing of the valve. Review of an echocardiogram undertaken some months prior identified a missed abnormality. If the initial scan had correctly identified the problem, the patient could have received better medical management and education and avoided the heart attack.	Physical: The patient suffered a heart attack, which could have been avoided	X	X		X	X	X	
55	Poor ultrasound examination resulted in a missed diagnosis. A sonographer undertook an ultrasound examination on Patient Q and recorded no abnormality. It was later identified that the sonographer failed to correctly undertake part of the standard protocol and had missed an abnormality. This resulted in the report being labelled as normal by the reporting medical practitioner. A few days later the patient's symptoms worsened, and subsequently a major abnormality was detected. The missed diagnosis could have severely impacted the integrity of one of Patient Q's limbs. The sonographer concerned was not required to be involved in a review or undertake training.	Physical: Potential for avoidable damage to one of Patient Q's limbs		X		X	X	X	

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OTHER FAILURES IN PROFESSIONAL practice STANDARDS									
3	Clinical error resulting in a risk of infection to patient: Patient C underwent an external and internal pelvic ultrasound examination. The patient later made a complaint that the sonographer had made a clinical error, which created the risk of infection.	Emotional: Patient C was immensely upset over the incident; concern over the risk of infection		X			X	X	
8	Sonographer refusal to undertake an internal exam or arrange alternative: Patient H was referred for an abdominal and transvaginal ultrasound examination. The sonographer performed only the abdominal scan, stating 'they don't do transvaginal ultrasound examinations.' The sonographer did not arrange for the additional ultrasound to be done by someone else. Patient H had to visit a second ultrasound clinic to receive the full referred examination.	Economic: Patient H required another exam, which was an inconvenience and additional cost	X	X		X	X	X	
11	Sonographer failure to provide continuum of care: Patient K was sent for an ultrasound on a weekend to confirm a possible miscarriage. The sonographer advised Patient K to collect the results from their GP. However, the GP clinic would not be open for a couple of days. The sonographer failed to provide continuum of care, as Patient K should have been given options to ensure they received information promptly. Patient K had to go to the hospital the next day following heavy bleeding.	Emotional: High level of distress by patient due to lack of information about her condition		X		X		X	

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12	Ongoing mental health issues and impaired performance: Sonographer L's mental health issues became apparent following an aggressive outburst witnessed by staff and patients. Sonographer L was suspended while the matter was investigated. The investigation revealed serious mental health concerns, and an inability to appropriately complete examinations, resulting in requests for rescans by the reporting doctor. Sonographer L took extended sick leave; however, the longer-term outcome is unknown, including whether they have taken up work elsewhere.	Economic: Patients needed to be rescanned		X	X	X		X	X
13	Ongoing failure in practice standards resulting in misdiagnosis: Ongoing and persistent issues were identified concerning the quality of ultrasound examination performed by Sonographer M. Despite additional supervised training in the workplace, Sonographer M continued to underperform, resulting in poor patient diagnostic results and significant rescanning of patients.	Physical: Patients are receiving technically and clinically poor quality examinations; some have been identified as requiring rescanning	X	X	X	X	X	X	X
14	False-positive kidney abnormality causing distress to pregnant patient: Sonographer N incorrectly indicated an issue with a baby's development (kidneys) at the 12-week scan. Sonographer N also provided their opinion directly to the patient at the examination, which is not usual practice. Typically, any abnormality should be checked by another qualified sonographer or reporting specialist.	Emotional: Significant patient distress due to incorrect diagnosis and failure to respond to the complaint	X	X		X		X	

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18	Lack of anatomical knowledge and scanning ability resulted in misdiagnosis: A sonographer wrongly identified a cardiac abnormality when there was no abnormality. This resulted in an incorrect diagnosis being reported by the medical practitioner, with Patient R subjected to painful treatment (compression) which could have resulted in thrombosis.	Physical: Unnecessary and unpleasant treatment was provided, which put Patient R at medical risk		X		X	X	X	
21	Ongoing substandard quality of practice: Sonographer U provided multiple substandard obstetric examinations, including incomplete and inaccurate morphology scans and worksheets, resulting in repeat examinations and patient anxiety. Sonographer U's employment was terminated; however, they are free to practice elsewhere.	Emotional: Patient anxiety over repeated examinations and uncertain diagnosis Economic: Repeated examinations	X	X		X	X		
28	Missed diagnosis post-surgery contributing to premature death: Patient AB was recovering after surgery for a partial liver removal. When they began to decline, the attending sonographer undertook an ultrasound examination, recording no abnormalities. A subsequent ultrasound examination identified a problem. Patient AB underwent further surgery. However, the patient died three days later.	Physical: Delayed diagnosis and action either contributed to or resulted in patient death	X				X	X	

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29	<p>Missed diagnosis of significant fetal anomalies at screening exam: First-trimester screening ultrasound of Patient AC failed to identify multiple serious fetal abnormalities, which are reasonably expected to be recognised in this ultrasound examination by the sonographer. They were later identified at the 20-week scan, at which time Patient AC required urgent medical termination of the pregnancy.</p>	<p>Physical: Required later-term termination of pregnancy</p> <p>Emotional: Significant distress for first-time parents</p> <p>Economic: Financial outlay for the ineffective screening exam</p>	X	X		X	X	X	
30	<p>Clinical error made during vascular examination: Sonographer AD measured an indicator incorrectly during a vascular ultrasound examination. The error was identified later during a repeat ultrasound. While there may have been no negative impact on this patient, the incorrect measurement suggests that Sonographer AD is not complying with standard practice. Underestimation of the size of this measurement has the potential to lead to life-threatening consequences.</p>	<p>Physical: Potential for severe consequences</p> <p>Economic: Repeated examination required</p>	X	X		X	X	X	
31	<p>Substandard performance resulting in repeated missed diagnosis: The workplace received numerous complaints about Sonographer AE regarding apparent failure to accurately detect anomalies, which resulted in missed gastroschisis (fetal anomaly) in a morphology examination and missed dermoids of up to 10 cm in gynaecological examinations being reported by the reporting medical practitioner.</p>	<p>Physical: Missed diagnosis of fetal abnormality put mother and baby at risk</p> <p>The risk remains for other patients, as errors are reoccurring</p>	X	X		X		X	

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32	Failure to undertake examinations as requested: A referring doctor contacted a workplace to complain that an internal examination had not been offered or undertaken on Patient AF, who had risk factors for cancer indicating one should be provided. A second examination by an alternate sonographer needed to be arranged.	Physical: Had another scan not been organised, there was potential for missed diagnosis Economic: Repeated examination required		X		X	X	X	
38	Incorrect information recorded, resulting in missed abnormalities: Sonographer AL entered incorrect information into obstetric screening software, incorrectly recording a low patient risk for fetal abnormalities. Subsequent ultrasound examinations detected placental and fetal abnormalities. However, due to the late detection and resulting diagnosis, some medical options were no longer available to the patient. Meaning the patient was not able to make a fully informed decision on the outcome of their pregnancy.	Physical: The late diagnosis limited the medical options available to the patient Emotional: Distressing due to delayed diagnosis	X	X		X		X	
39	Failure to follow guidelines resulting in an avoidable miscarriage: Sonographer AM failed to follow industry guidelines when undertaking a morphology ultrasound scan. This resulted in an inaccurate worksheet, on which the reporting medical practitioner determined there were no issues. Three days later, the patient went into spontaneous premature labour, and the baby died. The miscarriage could have been avoided had guidelines been followed.	Physical: Avoidable death of the baby due to spontaneous premature birth Emotional: Significant emotional distress of the patient and family	X	X		X	X		

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41	Cardiac anomalies missed in pregnancy exam: Poor quality ultrasound of Patient AO and failure to adhere to guidelines resulted in multiple cardiac abnormalities going undetected during a typical obstetric ultrasound. This resulted in a missed diagnosis and postnatal complications for the baby, who required emergency surgery at birth, which could have been avoided.	Physical: Postnatal complications for the baby due to heart defects and high risk of infant death Emotional: Significant distress for patient	X						
42	Poor quality scans resulting in multiple cases of missed diagnosis: Due to the poor quality of Sonographer AP's ultrasound examinations, a reporting medical practitioner refused to report on Sonographer AP's work. An audit found the poor quality of Sonographer AP's work had resulted in multiple missed diagnoses over some years.	Physical: Risk of missed diagnosis Economic: Repeated examinations, where relevant	X	X	X		X	X	X
43	Ongoing underperformance by a sonographer, including missed diagnosis of a major fetal anomaly: Sonographer AQ had not accurately captured relevant patient information and had performed an inadequate ultrasound examination resulting in a major fetal abnormality not being identified. The missed condition was not diagnosed until birth when the baby required immediate medical intervention. The child had numerous issues and required multiple surgeries. Concerns about the quality of examinations undertaken by Sonographer AQ had been raised several times across several years.	Physical: Baby was born with a major fetal anomaly requiring multiple surgeries and ongoing care. The missed diagnosis meant informed decisions could not be made, pregnancy was not appropriately monitored, and delivery did not take place in a suitably equipped hospital Emotional: Significant distress for the parents, who were not given a chance to make informed decisions	X	X	X	X	X	X	X

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			Nationally enforceable minimum standards of practice (inc. recency of practice reqs)	Centralised reporting of incidents	Enforceable mandatory notification requirements	National complaints handling with consistent processes	Impartial committee of peers to review a sonographer's practice where issues are raised	Enforceable supervised training, conditions on practice, and other practice improvement	Authority to suspend or stop sonographer from further practice
48	Examination undertaken using inadequate equipment: Patient AV underwent a cardiac examination to investigate concerning symptoms. However, the equipment used did not have the specific capabilities to assess the condition fully. This created a risk of incorrect diagnosis and mistreatment.	Physical: Patient at risk of inaccurate diagnosis and treatment due to insufficiency of the equipment	X	X		X			
49	Inadequate cardiac imaging resulting in delayed diagnosis: Patient AW was provided with inaccurate information about their condition due to a limited and suboptimal ultrasound examination, which resulted in delayed treatment. A subsequent scan a year later identified the need for surgery. If the cardiac condition had been identified at the first examination, Patient AW might have been better prepared for surgery, both physically and financially.	Physical: Delayed diagnosis led to worsening of symptoms and lack of time to prepare for surgery Financial: Lack of time to prepare for surgery		X		X	X	X	
55	Poor ultrasound examination resulted in a missed diagnosis: A sonographer undertook an ultrasound examination on Patient Q and recorded no abnormality. It was later identified that the sonographer failed to correctly undertake part of the standard protocol and had missed an abnormality. This resulted in the report being labelled as normal by the reporting medical practitioner. A few days later the patient's symptoms worsened, and subsequently a major abnormality was detected. The missed diagnosis could have severely impacted the integrity of one of Patient Q's limbs. The sonographer concerned was not required to be involved in a review or undertake training.	Physical: Potential for avoidable damage to one of Patient Q's limbs		X		X	X	X	

REF	SUMMARY	HARM TO PUBLIC HEALTH AND SAFETY	HOW WOULD NRAS LIMIT OR MITIGATE RISK						
			Nationally enforceable minimum standards of practice (inc. recency of practice reqs)	Centralised reporting of incidents	Enforceable mandatory notification requirements	National complaints handling with consistent processes	Impartial committee of peers to review a sonographer's practice where issues are raised	Enforceable supervised training, conditions on practice, and other practice improvement	Authority to suspend or stop sonographer from further practice
UNPROFESSIONAL BEHAVIOUR									
1	Inappropriate conduct during an internal examination: Following a pelvic examination, Patient A complained that the sonographer had acted inappropriately in their language and demeanour towards Patient A. The employee was asked to leave the practice; however, there was no further action or record of this instance.	Emotional: Significant distress		X		X	X		X
23	Misconduct claim resulting from failure to communicate: Following a sonographer performed pelvic ultrasound, Patient W made a complaint about the manner in which the examination was undertaken. The complaint was reported to the police, and after investigation, it was determined there was a likely failure to communicate the required technique to the patient, and that on this occasion, best practice had been followed.	Emotional: Distress, from suspected misconduct	X	X		X	X	X	
24	Disgruntled sonographer accessed private patient history: Patient X made a complaint about the attending sonographer. This followed several other minor conduct complaints about the sonographer in question. The sonographer then accessed the company database to view personal information about Patient X. The sonographer resigned before any disciplinary action could take place.	Emotional: Distress and breach of privacy		X		X		X	

REF	SUMMARY	HARM TO PUBLIC HEALTH AND SAFETY	HOW WOULD NRAS LIMIT OR MITIGATE RISK						
			Nationally enforceable minimum standards of practice (inc. recency of practice reqs)	Centralised reporting of incidents	Enforceable mandatory notification requirements	National complaints handling with consistent processes	Impartial committee of peers to review a sonographer's practice where issues are raised	Enforceable supervised training, conditions on practice, and other practice improvement	Authority to suspend or stop sonographer from further practice
25	Rough treatment and unprofessional manner by a sonographer: Patient Y complained to a workplace that the attending sonographer was quite aggressive and rude, causing pain and discomfort during the examination. As a result of the poor treatment, Patient Y had left the examination before it was complete.	Physical: Pain and discomfort, and incomplete examination		X		X		X	
34	Sonographer displayed disrespect towards a patient: Patient AH registered a complaint with the workplace about a sonographer's unprofessional communication and interaction – where the sonographer was laughing at Patient AH and making jokes with colleagues at Patient AH's expense following the examination.	Emotional: Distress and loss of trust in the profession		X		X		X	
35	Sonographer displayed unprofessional communication with a patient: Patient AI made a complaint following an examination outlining unprofessional communication by the sonographer, which undermined the referring doctors' professional opinions as well as the value of diagnostic ultrasounds. Patient AI quoted the sonographer as saying: 'I don't know why the doctors order these, as they don't know anything' and 'It will help pay for my (car)'.	Emotional: Loss of trust in the profession		X		X		X	

REF	SUMMARY	HARM TO PUBLIC HEALTH AND SAFETY	HOW WOULD NRAS LIMIT OR MITIGATE RISK						
			Nationally enforceable minimum standards of practice (inc. recency of practice reqs)	Centralised reporting of incidents	Enforceable mandatory notification requirements	National complaints handling with consistent processes	Impartial committee of peers to review a sonographer's practice where issues are raised	Enforceable supervised training, conditions on practice, and other practice improvement	Authority to suspend or stop sonographer from further practice
FAILURE TO ACT APPROPRIATELY WHEN ENCOUNTERING URGENT OR UNEXPECTED FINDINGS									
36	<p>Key information not communicated to the reporting doctor: Following a cardiac examination, Sonographer AJ noted concern on the provisional report, but did not mention it to a doctor, as per the usual protocol. The patient was discharged from the hospital prior to the final report being finalised and a few days later collapsed and ultimately suffered serious brain damage.</p>	<p>Physical: Failure to communicate a finding contributed to missed diagnosis and serious brain damage</p>				X	X	X	
LACK OF INFECTION CONTROL									
19	<p>Failure to sterilise ultrasound transducer: Sonographer S did not sterilise an ultrasound transducer between transvaginal examinations. Following identification of the issue, patients were notified and tested for potential transmissible disease. The sonographer received training; however, there is no record of the incident beyond the workplace.</p>	<p>Emotional: Distress for multiple patients</p> <p>Physical: Potential for significant infection and physical harm</p>	X	X		X			

APPENDIX 2: CASE EXAMPLES – LEGAL, MEDIA AND CORONIAL CASES

On average there are one or two media, legal or coronial case examples per year about poor or detrimental sonographer practice or conduct. Below is a summary of key Australian legal, media and coronial cases, and a selection of comparable international cases. Full articles are available on request.

Australian case examples

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
MISSED OR MISDIAGNOSIS			
2	Gold Coast parents who say they would have aborted their daughter if they had known she had a severe brain defect are suing the medical professional who allegedly failed to identify the condition for \$2.5 million in damages	Physical, emotional and economic harm from missed fetal anomaly	Queensland couple sue over Down syndrome baby The West Australian, 2016, Australia
3	The parents of a two-year-old boy with Down syndrome are suing a radiologist and sonographer for \$1.1 million, for failing to identify the condition They claim the ultrasound images were poor quality. If first trimester testing had led to a diagnosis of the condition, the couple say they would have chosen to terminate the pregnancy	Physical, emotional and economic harm from missed fetal anomaly	Parents in \$1.1m suit over disability Courier Mail, 2016, Australia
4	Parents claim they were told by a sonographer and a doctor that the risk (of Down syndrome) was in the 'low range', and were advised not to undergo more extensive testing. The baby was born with Down syndrome (in 2015)	Physical, emotional and economic harm from missed fetal anomaly	Aussie couple sue ultrasound clinic over Down syndrome baby News.com.au, 2019, Australia Stephens & Anor v Paradise Ultrasound Specialists Pty Ltd & Anor (2019) QSC 134
5	Parents take legal action, alleging hospital failed to properly interpret and report the 20-week ultrasound resulting in the baby's premature birth and related conditions, including cerebral palsy. The hospital denied the claims. Baby was born in 2002	Physical, emotional and economic harm resulting from unexpected pregnancy outcome	We would have aborted: Parents sue over car crash birth defect 7 News, 2019, Australia
20	Submissions into the Northern Beaches Hospital inquiry include those from a GP who indicated poor quality care, particularly poor quality radiology and pathology The GP indicated several cases where patients had received inaccurate results of CT and ultrasound scans, including one who was informed that she had cancer that had spread to her liver. However subsequent investigations revealed misdiagnosis	Risk of misdiagnosis resulting in likely physical and emotional harm	Northern Beaches Hospital inquiry: Patient death and inaccurate cancer diagnoses claims, 2019 Daily Telegrapher, 2019, Australia
NCI 1	Poor quality images contributed to an incorrect diagnosis of DVT and commencement of incorrect treatment. The patient was later correctly diagnosed and correct treatment commenced. However, the patient's condition deteriorated and they passed away	Misdiagnosis and delay in appropriate treatment contributing to death	National Coronial Information Database, report prepared for ASA, 2019, Australia
NCI 13	Misdiagnosis in an older patient resulted in unnecessary surgery. When the mistake was realised, surgery was terminated. However, her condition soon deteriorated. Further surgery was undertaken to try to remedy the issue. Despite successful surgery, the patient passed away the following day	Misdiagnosis contributing to death	National Coronial Information Database, report prepared for ASA, 2019, Australia
NCI 16	Despite multiple ultrasounds the diagnosis of DVT was missed. The patient deteriorated and passed away	Misdiagnosis contributing to death	National Coronial Information Database, report prepared for ASA, 2019, Australia

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
UNPROFESSIONAL BEHAVIOUR			
19	A Sydney-based sonographer has been charged with assault, alleged to have taken place while the patient underwent a medical procedure. An interim prohibition order is currently in place while the matter is investigated further	Likely emotional harm resulting from risk of unprofessional behaviour	Dharam Gajjar charged with sexually assaulting patient at clinic Daily Telegraph, 2020, Australia
1	This article analyses the Victorian Court of Criminal Appeal's decision in Mobilio. While the accused was classified as a radiographer, this landmark case set the precedent that determined the inappropriate use of an ultrasound transducer can be viewed as rape	Expected physical and emotional harm resulting from assault	Court appeal decision: Rape in Medical Treatment: The Patient as Victim Morgan, 1991, Australia
13	Sonographer, Samir Ishak, was convicted of indecent assault of multiple patients	Significant emotional harm, resulting from assault	Sydney sonographer Samir Ishak jailed for indecent assaults Sydney Morning Herald, 2017, Australia
14	Sonographer, Samir Ishak, was convicted of indecent assault of multiple patients	Significant emotional harm, resulting from assault	Ultrasound technician guilty of groping female patients ABC News, 2016, Australia
15	Statement of decision from the NSW Health Commission regarding Samir Ishak, including the decision to permanently prohibit Ishak from providing any health services, in any capacity	Significant emotional harm, resulting from assault	NSW Health Commission Statement of Decision – Samir Ishak, 2019, Australia
16	Sonographer, Morrissey, convicted of assault (QLD)	Significant emotional harm, resulting from assault	Suspended sentence male sonographer assaulted patient – Morrissey Gold Coast Bulletin, 2014, Australia
FAILURE TO ACT APPROPRIATELY WHEN ENCOUNTERING URGENT OR UNEXPECTED FINDINGS			
NCI 3	Lack of communication between the sonographer and referring doctor resulted in a technical finding being communicated to the parents by sonographer (breech birth position) without them receiving information on the serious medical implications of this. The mother continued with a planned homebirth, complications occurred, and the baby passed away	Lack of communication contributing to death	National Coronial Information Database, report prepared for ASA, 2019, Australia

International cases

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
MISSED OR MISDIAGNOSIS			
8	Mother sues after child born with Down syndrome, saying she would have aborted the baby had she known the child had the condition. The mother believed she had agreed to the 12-week screening exam and that it had been recorded as normal; however, the sonographer believed the mother declined the test and had not undertaken the test. The judge awarded compensation and determined that the sonographer who conducted the 12-week scan had failed to obtain 'informed consent' to go ahead without undertaking the Down syndrome screening test.	Physical and emotional harm, resulting from lack of communication and subsequent missed diagnosis	Mum, who would have aborted baby with Down syndrome, receives NHS payout The Sun, 2019, United Kingdom
9	A mother is suing the NHS for millions of pounds over the 'wrongful birth' of her daughter after medical practitioners failed to detect a significant fetal anomaly. A series of tests later revealed Aicardi syndrome, a rare brain defect. The parents claim the interpretation of the scan was below standard for a competent sonographer, and they would have aborted had they known the diagnosis.	Missed diagnosis of fetal anomaly, resulting in physical, emotional and economic harm	Mother sues NHS for millions of pounds – medics failed to detect the baby was missing a key part of her brain Daily Mail, 2019, United Kingdom
10	An early scan at a private clinic undertaken by an experienced sonographer failed to detect a significant fetal anomaly (Edward's syndrome) and determined incorrect gender. A subsequent scan at a different practice detected the abnormality.	Significant emotional harm resulting from missed fetal anomaly of a condition that will result in death of baby before or soon after birth	Mother-to-be reveals a private ultrasound failed to pick up on her baby's deadly disease Daily Mail, 2019, United Kingdom
12	Parents sued an obstetrician-gynaecologist and an ultrasound technician for \$9 million in a wrongful birth claim, due to missed fetal anomaly. The baby was born with missing limbs. The parents were awarded \$4.5 million. The judge deemed the obstetrician-gynaecologist and sonographer to be professionally negligent (85%:15% respectively).	Physical, emotional and economic harm resulting from professional negligence and related missed diagnosis	Couple wins \$4.5 million in 'wrongful birth' lawsuit after claiming they would have aborted disabled son The Blaze, 2011, USA
UNPROFESSIONAL BEHAVIOUR			
18	A patient accuses sonographer of misconduct during an examination. The lawsuit also claims the hospital failed to have appropriate rules in place regarding contact with the patient and failed to adequately investigate the serious complaint.	Emotional harm resulting from unprofessional behaviour	Patient accuses ultrasound technician of inappropriately touching Oregon Live, 2016, USA

APPENDIX 3: JOURNAL ARTICLES, GUIDELINES AND REPORTS

The table below provides a summary of relevant articles, guidelines and reports highlighting risks associated with the activities of sonographers. Full articles are available on request.

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
GENERAL			
1	Outpatient care settings face unique risks of adverse events and medico-legal liability, often worsened by inconsistent processes and fragmented care A malpractice consortium found that ambulatory care cases (including office practises, outpatient hospital settings, and emergency departments) accounted for 30–35% of annual medical malpractice costs, and missed or delayed diagnoses account for approximately 50% of office practice liability risk Communication and follow-up of diagnostic test results are key areas	Risk of harm to patients in outpatient care can be impacted by inconsistent processes and fragmented care; and can include missed or delayed diagnosis	Prioritizing Patient Safety Efforts in Office practice Settings Kravet et al., 2019, USA https://doi.org/10.1097/PTS.0000000000000652
2	The study found inconsistency in sonographer communication practises, in the event of adverse findings in obstetric care. Where there is a lack of formal policy, there is often confusion about the role of the sonographer, with the sonographer forced to make a personal judgement on the level of communication with pregnant patients The study found the extent of communication was highly dependent on experience, type of adverse finding and directives from the reporting sonologist	Potential risk of emotional harm to patients due to lack of formal policies and complexity of sonographer/patient relationship in obstetric setting	Sonographers' communication in obstetrics: Challenges to their professional role and practice in Australia Thomas, O'Loughlin and Clark, 2019, Australia https://doi.org/10.1002/ajum.12184
3	This article highlights some of the potential risks from the activities of sonography, including failure to observe and communicate key ultrasound images The article also indicates a lack of up-to-date evidence regarding potential biological risks, and advises caution, including limiting acoustic power and exposure duration, particularly given the use of newer technologies. Several studies also show sonographers (and other health professionals) have poor knowledge of how to find and interpret safety information on their own machines	Potential risk of harm resulting from operator dependency, complexity of diagnostic tasks, potential biological risks, and role of sonographer in communicating to physician	Diagnostic Sonographers: A Literature Review Health Professions Regulatory Advisory Council, 2013, Canada
4	This article highlights the types of risks to patients and associated medical malpractice lawsuits in cardiovascular sonography in the USA Medical malpractice cases include: neglect to properly treat the patient, failure to inform the patient of risk of a procedure or medication, unprofessional conduct, patient abuse, inadequate record keeping, over medication, and practising medicine without a licence Recommendations for sonographers include: understand the scope of practice and know your limitations as a sonographer; practice without bias and be culturally competent and sensitive to others	Potential risk of harm resulting from failure to properly treat patient, failure to inform, unprofessional conduct or abuse, and poor record keeping	Legal Issues for the Cardiovascular Sonographer McIlwain, 2014, USA https://doi.org/10.1016/j.echo.2014.04.006
5	This article presents the findings of a review of legal cases in Canada related to diagnostic sonographers and the risk of harm posed to the public Four cases are discussed, two involving assault/unprofessional conduct, and two involving failing to detect/inform fetal anomaly	Potential risk of harm associated with assault/unprofessional behaviour, and missed or misdiagnosis	Diagnostic Sonographers: A Jurisprudence Review Health Professions Advisory Council, 2013, Canada

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
MISSED OR MISDIAGNOSIS			
6	This article highlights technical reasons why misdiagnosis may occur in prenatal second and third trimester exams. Visualisation of the cavum septi pellucidum (CSP) is considered an integral part of the prenatal second- and third-trimester sonographic evaluations of the fetal neural axis. Another anatomic structure, the columns of the fornix, can be mistaken for the CSP and result in the missed diagnosis of agenesis of the corpus callosum	Potential risk of harm resulting from misdiagnosis in obstetrics	Columns of the Fornix; Not to be mistaken for the Cavum Septi Pellucidum on Prenatal Sonography Callen et al., 2008, USA https://doi.org/10.7863/jum.2008.27.1.25
7	This article points to the risk of misdiagnosis in early pregnancy ultrasounds Despite significant technological advances that have improved the quality of imaging of early pregnancy considerably over the past decade, scans in very early pregnancy continue to fail to identify a viable fetus due to performing the scan at a stage before a heartbeat can be recognised, inadequacy of equipment, or lack of operator expertise. First ultrasounds in early pregnancy may not be diagnostic in 8–31% of examinations, even in specialist hands	Potential risk of harm resulting from misdiagnosis in early pregnancy ultrasounds	Implementation of the findings of a national enquiry into the misdiagnosis of miscarriage in the Republic of Ireland: impact on quality of clinical care Ledger, Phil & Turner, 2016, Ireland https://doi.org/10.1016/j.fertnstert.2015.11.002
8	This study looks at the underlying cognitive and perceptual processes involved in the visual task of the sonographer, and potential for errors Results point to potential for diagnostic errors and benefits to be gained from ongoing education regarding anatomy, scanning techniques, and appearances of pathology	Potential for risk of harm due to complexity of diagnosis task and potential for diagnostic errors even among experienced sonographers	A snapshot of the visual search behaviours of medical sonographers Australasian Journal of Ultrasound in Medicine, 2015, Australia https://doi.org/10.1002/j.2205-0140.2015.tb00045.x
9	This article considers diagnostic errors in radiology, with many issues also applicable to sonography. Complaints against radiologists typically focus on a failure to diagnose. Errors fall into recurrent patterns including, poor technique, failures of perception, lack of knowledge and misjudgements. Performing obstetric sonography carries significant medico-legal risk, because missing a detectable fetal abnormality due to negligence often results in the largest indemnification payments in medical malpractice	Potential for risk of harm due to diagnostic errors	Spectrum of diagnostic errors in radiology Pinto & Brunese, 2010, Italy https://doi.org/10.4329/wjr.v2.i10.377
10	This article suggests there is potential to harm the public through over-diagnosis, misdiagnosis or missed diagnosis	Potential risk of harm resulting from missed or misdiagnosis	Experiences of Newly Qualified Sonographers – A Case Study Design, Phillips, 2015, UK
11	This presentation highlights findings from a search conducted in the US Public Library of Law for cases regarding obstetrical imaging. Of the 270 cases reviewed, 100 directly related to obstetrical imaging. Of missed diagnoses, 20% were due to inaccurate fetal biometry, 10% missed ectopic pregnancy, and the remainder were missed diagnoses of fetal abnormalities Three out of six sonographer-related cases involved sexual assault. A subset of cases specifically related to wrongful life, wrongful birth, and wrongful death were brought in 20% of cases	Potential risk of harm resulting from missed or misdiagnosis including in obstetric ultrasound	Presentation: Litigation in Obstetrical Sonography: Lessons Learned From 100 Consecutive Cases in the Public Library of Law (7P). Abstract. Malik & Jackson, 2017, USA
12	The article reviews the major challenges related to the principles of the correct technique of musculoskeletal ultrasound (MSK US) and resulting risk of misdiagnosis Like each imaging modality, ultrasound still has its limitations, potentially leading to misdiagnosis. Multiple factors affect the correct performance and interpretation of MSK ultrasound, including: <ul style="list-style-type: none"> • the quality of an US machine • the choice of an appropriate transducer • the correct machine settings • the correct scanning technique, including proper positioning of the transducer or use of an ultrasound stand-off pad where necessary • knowledge of the capabilities and limitations of the modality, including knowledge of typical artifacts • knowledge of normal MSK anatomy, functional MSK anatomy and MSK pathophysiology 	Potential risk of harm resulting from misdiagnosis related to musculoskeletal ultrasound	Diagnostic errors in MSK US imaging; how to avoid Polish Ultrasound Society, 2017, Poland https://doi.org/10.15557/JoU.2017.0028

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
13	This article discusses risks in obstetric ultrasound, and the limitations of technology e.g. need to perform at appropriate gestational age by experienced practitioner It suggests the largest risk of obstetric sonography is related to misdiagnosis	Potential risk of harm resulting from misdiagnosis in obstetric ultrasound	Obstetric sonography: Who to Scan, When to Scan, by Whom Bofill & Sharp, 1998, USA https://doi.org/10.1016/S0889-8545(05)70022-X
14	This study sought to identify knowledge gaps and/or perceived limitations in the performance of paediatric appendiceal ultrasound by Australasian sonographers It highlights that diagnosis of appendicitis in children can be complex	Potential risk of harm resulting from missed or misdiagnosis of appendicitis in children	Paediatric appendiceal ultrasound: a survey of Australasian sonographers' opinions on examination performance and sonographic criteria. Reddan, Corness, & Mengersen, 2018, Australia https://doi.org/10.1002/jmrs.310
15	This article suggests the accuracy of ultrasound in appendicitis in children depends on the ability to visualise the appendix, which can be challenging, and the potential contribution from secondary signs	Potential risk of harm resulting from missed or misdiagnosis of appendicitis in children	Sonographic diagnosis of acute appendicitis in children: a 3-year retrospective. Reddan et al., 2016, Australia https://doi.org/10.1002/sono.12068
16	This guideline outlines GP assessment pathway for diagnosis of DVT, and highlights potential areas that may contribute to misdiagnosis, including in obese patients	Potential risk of harm resulting from missed or misdiagnosis of DVT	DVT Risks and Diagnosis; GP Assessment Pathway Guideline, 2010, Australia
17	This guideline indicates the process for treatment and management of venous thromboembolism (VTE), which includes role of imaging in diagnosis This also highlights the difficulties in diagnosis of some vascular conditions	Potential risk of harm resulting from missed or misdiagnosis of venous thromboembolism	Venous thromboembolism: Guidelines for diagnosis and management Tran et al., 2019, Australia and New Zealand
18	This article highlights the potential for missed or underreported lower leg DVT if calf veins are not imaged fully	Potential risk of physical harm from missed DVT	Patterns and distribution of isolated calf deep vein thrombosis Labropoulos et al., 1999, USA https://doi.org/10.1016/S0741-5214(99)70002-9
19	This article highlights that congenital heart defects are the most often missed congenital anomalies in prenatal screening programs It also highlights high degree of operator dependency i.e. involvement of personal characteristics in decision to refer, and highlights the preference to see an anomaly multiple times in convincing the sonographer that an anomaly is present	Potential risk of physical and emotional harm from missed congenital anomalies	Decision-making referral process of sonographers in primary care screening centers Oosterhuis et al., 2016, the Netherlands https://doi.org/10.1002/pd.4822
20	This article reviews medical malpractice claims, and identifies common diagnostic errors, including interpretation errors and poor communication	Potential risk of harm from incorrect diagnosis, and poor communication	Role of radiology in diagnostic error – a medical malpractice claims review Siegal et al., 2017, USA https://doi.org/10.1515/dx-2017-0025
UNPROFESSIONAL BEHAVIOUR			
22	This communique provides updated guidelines that aim to provide guidance to doctors about establishing and maintaining sexual boundaries in the doctor-patient relationship	Potential risk of harm resulting from unprofessional behaviour, including boundary violation	Medical Board of Australia Guidelines: Sexual Boundaries Dr-Patient Relationship 2019, Australia
23	This article highlights the trend towards increasing allegations of sexual assault against doctors, and greater public awareness of high profile cases. The article makes suggestions regarding ways to minimise risk of allegations through effective communication, etc.	Potential risk of harm resulting from unprofessional behaviour	Protection against allegations of sexual assault when undertaking ultrasound examinations Thomson & Moloney, 2017, UK https://doi.org/10.1177/1742271X16676223 org/10.1177/1742271X16676223

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
FAILURE TO ACT APPROPRIATELY WHEN ENCOUNTERING URGENT OR UNEXPECTED FINDINGS			
24	This article indicates there exists ambiguity and inconsistency in understanding the sonographer role and with practice protocols around communication when delivering 'bad news' to pregnant patients The article states that most of the participants had not received any formal training in communication techniques. Policy reform, improved clarity and standardised protocols are needed to improve practice guidelines for sonographers in communicating adverse outcomes to an expectant mother	Potential risk of harm resulting from a failure to act appropriately when encountering unexpected findings	21st century sonographer: Role ambiguity in communicating an adverse outcome in obstetric ultrasound Thomas et al., 2017, Australian https://doi.org/10.1080/2331205X.2017.1373903
25	This article indicates that communication failures are increasingly a cause of malpractice litigation and patient harm. The article focuses on radiology, but has relevance for sonography	Potential risk of harm resulting from a failure to act appropriately when encountering urgent or unexpected findings, including poor communication	Failure of radiologic communication: An increasing cause of malpractice litigation and harm to patients Berlin, 2010, USA Available from: https://www.appliedradiology.com/articles/failure-of-radiologic-communication-an-increasing-cause-of-malpractice-litigation-and-harm-to-patients
LACK OF INFECTION CONTROL			
26	These guidelines for reprocessing ultrasound transducers provide recommendations for the cleaning and disinfection of all medical ultrasound transducers and any additional equipment that may be utilised during the procedure Failure to adhere to minimum infection control standards, including the proper cleaning and reprocessing of the equipment and transducers, increases the risk of pathogen transmission and subsequent infection	Potential risk of physical harm resulting from lack of infection control	Guidelines for reprocessing ultrasound transducers ASUM/ACIPC, 2017, Australia https://doi.org/10.1002/ajum.12042
27	This blog article summarises outbreak caused by infections from ultrasound procedures. It indicates potential risks due to lack of infection control, including from contaminated gel and endocavity ultrasound procedures	Potential risk of physical harm resulting from lack of infection control	Nanosonics Blog: Outbreaks caused by infections from ultrasound procedures Nanosonics Ltd, 2017, Australia
28	This bulletin summarises key risks and areas re ultrasound-guided procedure risks, outbreaks from ultrasound gel, infection transmission from ultrasound transducers, regulator alerts and recalls. Appendix includes alerts and publications on outbreaks and deaths from ultrasound procedures in Australia, UK, Canada, USA. It identifies patient population (e.g. ICU patients), infection organism, no. of cases involved	Potential risk of physical harm resulting from lack of infection control	Clinical Bulletin, Outbreaks and death caused by infections from ultrasound procedures Nanosonics Ltd, 2017, Australia
29	This document outlines Australian guidelines for the prevention and control of infection in health care, including those relevant to ultrasound and sonography	Potential risk of physical harm resulting from lack of infection control	Australian guidelines for the prevention and control of infection in health care National Health & Medical Research Council, 2017, Australia
30	The article outlines research that suggests intracavity ultrasound transducers still pose a risk of cross-infecting patients even after undergoing a standard manual disinfection procedure (i.e. the process of soaking the transducer in a liquid disinfectant) The report concludes that stricter disinfection standards or techniques are required to ensure high level disinfection of the entire transducers including its handle, or use of trophon EPR decontamination units, which were found to remove all traces of infectious bacteria	Potential risk of physical harm resulting from lack of infection control	Expecting Parent Alert: Ultrasounds Linked to Infection Risk Jagar, 2013, Australia

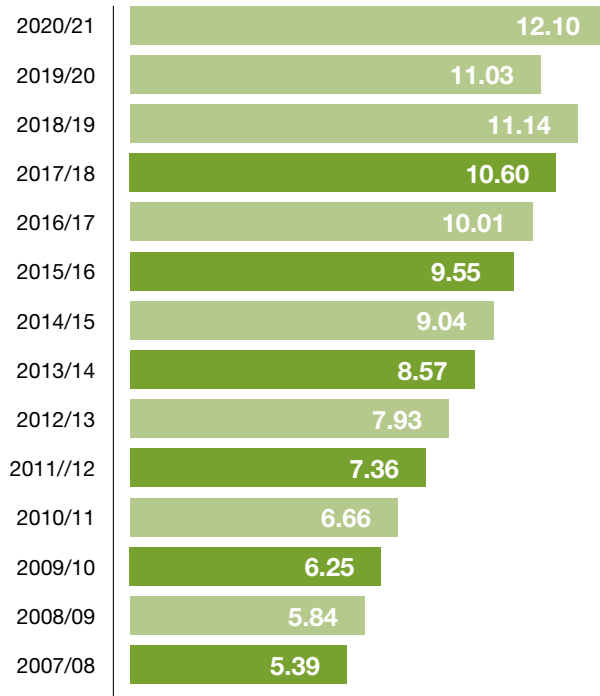
REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
BIOLOGICAL EFFECTS			
31	<p>The British Medical Guidelines outline key principles for the safe use of ultrasound, including:</p> <ul style="list-style-type: none"> • medical ultrasound imaging should only be used for medical diagnosis • ultrasound equipment should only be used by people who are fully trained in its safe and proper operation • examination times should be kept as short as is necessary to produce a useful diagnostic result • output levels should be kept as low as is reasonably achievable while producing a useful diagnostic result <p>Specific risks are associated with sensitive tissue, Doppler modes, exposure time, and endocavity transducers</p>	Potential risk of physical harm resulting from biological effects	BMUS Guidelines for the Safe Use of Diagnostic Ultrasound Equipment BMUS, 2010, UK
32	<p>This book, published by the British Institute of Radiology, provides information on all aspects of the safe use of diagnostic ultrasound, including ultrasound-induced heating and its biological consequences, non-thermal effects of diagnostic ultrasound, bioeffects – cells and tissues, and the safe use of contrast-enhanced diagnostic ultrasound, among other things</p> <p>It highlights that the safe use of diagnostic ultrasound is the responsibility of the person conducting the scan</p>	<p>Potential risk of physical harm resulting from biological effects</p> <p>It also outlines requirements for safe use of diagnostic ultrasound</p>	The Safe Use of Ultrasound in Medical Diagnosis (3rd Edition) The British Institute of Radiology, 2012, UK
33	<p>This national survey sought to identify gaps in Australian sonographers' knowledge and application of as low as reasonably achievable (ALARA) principles during first trimester imaging; identify relationships between demographic variables and knowledge or application of the output display standard (ODS) value thermal index (TI) and compare Australian sonographers to their international peers</p> <p>Despite poor ODS usage, with half of all respondents never monitoring the ODS, Australian sonographers outperform their international peers for ALARA literacy, and show better application of ALARA principles in the first trimester</p>	<p>Potential risk of physical harm resulting from biological effects</p> <p>It also highlights the high level of operator dependency</p>	National survey of Australian sonographer knowledge and behaviour surrounding the ALARA principles when conducting the 11–14 week obstetric screening ultrasound Beirne G., Westerway S., Ng C., 2016, Australia https://doi.org/10.1002/ajum.12008
34	<p>This study sought to evaluate knowledge, attitudes, and practises of Australasian sonographers on bioeffects and safety of ultrasound scanning</p> <p>The study found that while familiar with safety terms, knowledge of safety guidelines was lacking. Many sonographers were uncertain about their attitudes to the safety of scans, and safety practises involving monitoring for bioeffects were not a high priority</p>	Potential risk of physical harm resulting from biological effects	Safety of Ultrasound Exposure: Knowledge, attitudes and practises of Australian sonographers McEvoy, Childs, and Esterman. 2018, Australia https://doi.org/10.1002/sono.12113
35	<p>The article concludes that while studies conducted on humans have failed to provide evidence of ultrasound exposure causing tissue damage, evidence from more recent animal studies has demonstrated that ultrasound applied under similar conditions to those used in humans can cause adverse bioeffects</p>	Potential risk of physical harm resulting from biological effects	Ultrasound biosafety during pregnancy: what do operators know in the developing world Akhtar et al., 2011, Pakistan https://doi.org/10.7863/jum.2011.30.7.981

REF	SUMMARY	RISK TO PUBLIC HEALTH AND SAFETY	SOURCE
36	This article discusses the possible biological risks associated with neonatal cranial ultrasound. It indicates that studies on animals suggest ultrasound can result in temperature rises above the recommended safety threshold. Current safety recommendations are based on results of outdated studies that do not account for the effect of technological advances. More research is needed to identify the effects using modern ultrasound machines. In the meantime, operators are advised to limit the use of Doppler mode and reduce overall duration of the neonatal cranial scan	Potential risk of physical harm to neonates resulting from (thermal and mechanical) biological effects	Neonatal cranial ultrasound – are current guidelines appropriate? Lalзад, Wong & Schneider, 2017, Australia https://doi.org/10.1016/j.ultrasmedbio.2016.11.002
37	The article highlights potential risk during neonatal cranial US and apparent poor knowledge that reducing scanning time is the best way to reduce total exposure. Practitioners may benefit from greater education to minimise biological risks	Potential risk of physical harm to neonates resulting from biological effects	Knowledge of Safety, Training, and practice of Neonatal Cranial Ultrasound: A Survey of Operators Lalзад et al., 2017 https://doi.org/10.1002/jum.14481
38	This article states that ultrasound is a sound wave that can produce mechanical effects and temperature elevation in tissues that it traverses. However, the risk to human fetuses when using diagnostic ultrasound appears to be minimal if certain rules are followed, such as performing a scan when medically indicated, and observing the ALARA principle (using the lowest output power consistent with acquiring the necessary diagnostic information and keeping the exposure time as low as possible for accurate diagnosis)	Potential risk of physical harm resulting from biological effects	Obstetrical ultrasound: can the fetus hear the wave and feel the heat? Abramowicz, Kremkau & Merz, 2012 https://doi.org/10.1055/s-0032-1312759
39	This article states that ultrasonography and MRI are considered to have low risk and are the imaging techniques of choice for the pregnant patient. However, they should be used prudently and only when use is expected to answer a relevant clinical question or otherwise provide medical benefit to the patient	Potential risk of physical harm to pregnant patients resulting from biological effects	ACOG Guidelines for Diagnostic Imaging During Pregnancy and Lactation American College of Obstetricians and Gynecologists, 2017, USA
40	This article states that available evidence, experimental or epidemiologic, is insufficient to conclude that there is a causal relationship between obstetric diagnostic ultrasound exposure and obvious adverse thermal effects to the fetus. However, very subtle effects cannot be ruled out and indicate a need for further research, although research in humans may be extremely difficult to realise	Potential risk of physical harm to fetus resulting from biological effects	Fetal Thermal Effects of Diagnostic Ultrasound American Institute of Ultrasound in Medicine, 2008, USA https://doi.org/10.7863/jum.2008.27.4.541
41	This paper addresses the issues of ultrasound considering both medical and nonmedical use in the embryonic stage of human development (up to 10 weeks of gestation). It points to potential for biological effects and states while the risk is likely to be small, the effect on developing conceptus (< 10 weeks) remains uncertain	Potential risk of physical harm to fetus resulting from biological effects	Ultrasound from Conception to 10+ weeks of Gestation – Scientific Impact Paper No. 49, March 2015 Royal College of Obstetricians and Gynaecologists, 2015, UK
42	The statement states that while diagnostic ultrasound has been widely used for many years with no proven harmful effects, investigations into the possibility of subtle or transient effects are still at an early stage. Diagnostic ultrasound can only be considered safe if used prudently. Examinations should only be performed by competent personnel and ultrasound devices must be appropriately maintained Ongoing vigilance is important given expanding clinical application of ultrasound, increasing number of patients undergoing examinations, and new techniques with higher acoustic output levels	Potential risk of physical harm resulting from biological effects	WFUMB Clinical Safety Statement for Diagnostic Ultrasound – An Overview World Federation for Ultrasound in Medicine and Biology, 2019, UK

APPENDIX 4: ADDITIONAL TABLES, CHARTS, DIAGRAMS

4A. Medicare – Ultrasound utilisation and benefits paid

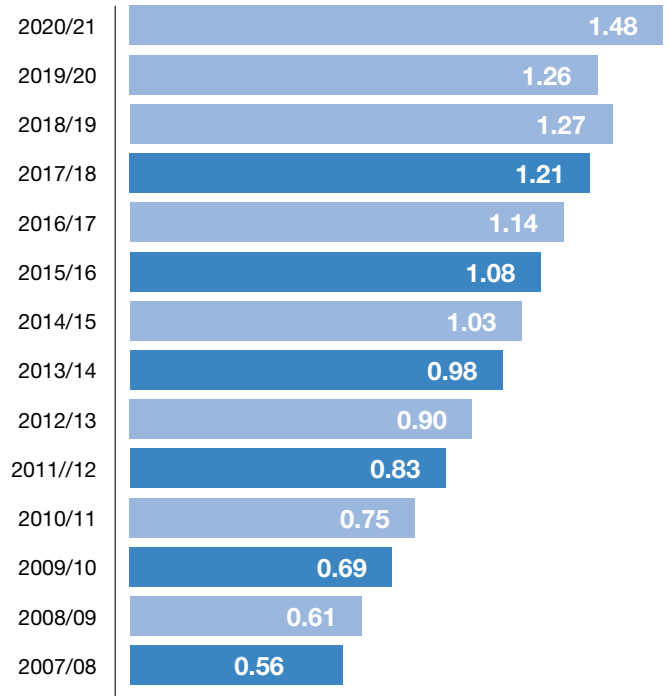
Chart 4A-1. Ultrasound Medicare Service Utilisation \$ Millions



Source: Australian Government, Department of Human Services. Medicare Australia Statistics: Diagnostic Imaging Services: MBS category by group and subgroup (Internet). Canberra: ACT (Cited 2022 January 6).

Available from:
medicarestatistics.humanservices.gov.au/statistics/mbs_group.jsp

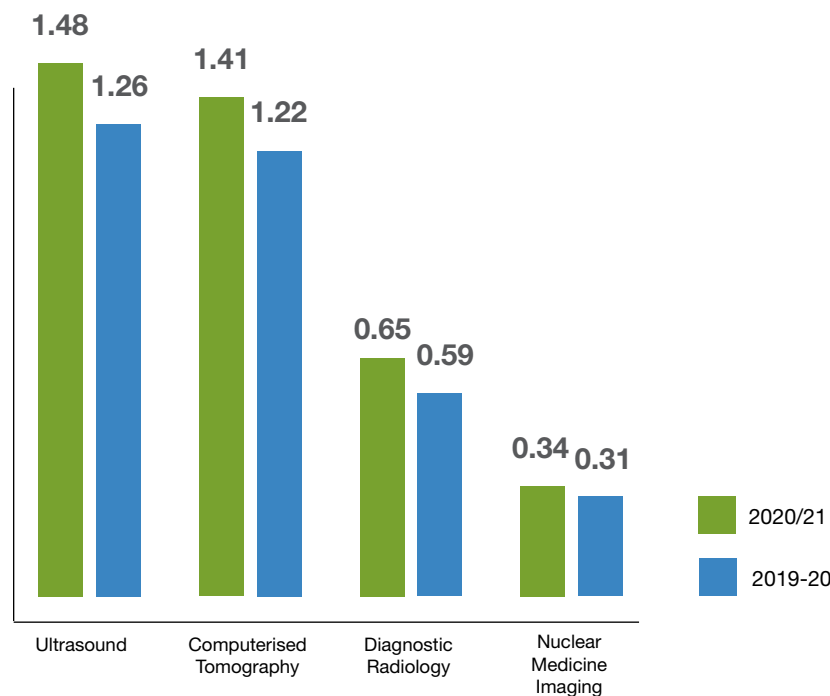
Chart 4A-2. Ultrasound Medicare Benefits Paid \$ Billions



Source: Australian Government, Department of Human Services. Medicare Australia Statistics: Diagnostic Imaging Services: MBS category by group and subgroup (Internet). Canberra: ACT (Cited 2022 January 6).

Available from:
medicarestatistics.humanservices.gov.au/statistics/mbs_group.jsp

Chart 4A-3. Diagnostic Imaging Services – Medicare Benefits Paid \$ Billions



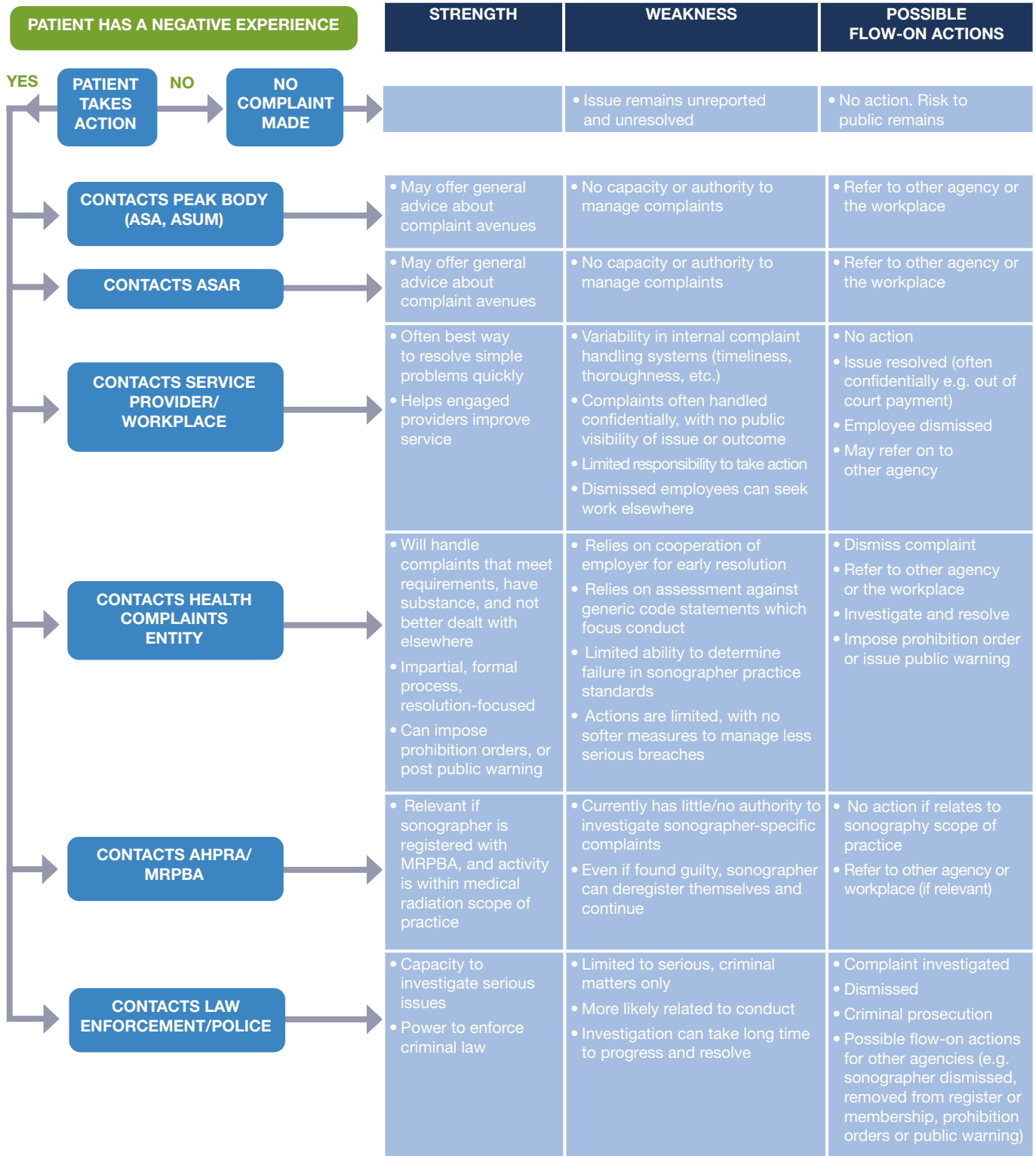
Source: Australian Government, Department of Human Services. Medicare Australia Statistics: Diagnostic Imaging Services: MBS category by group and subgroup (Internet). Canberra: ACT (Cited 2022 January 6).

Available from:
medicarestatistics.humanservices.gov.au/statistics/mbs_group.jsp

4B: Multiple avenues a patient with a complaint about sonographers may take

The current complaints handling process for sonographers is complex and ineffective. The diagram below profiles the multiple avenues a patient with a complaint may take; the strengths and weaknesses of each option; and any flow-on action.

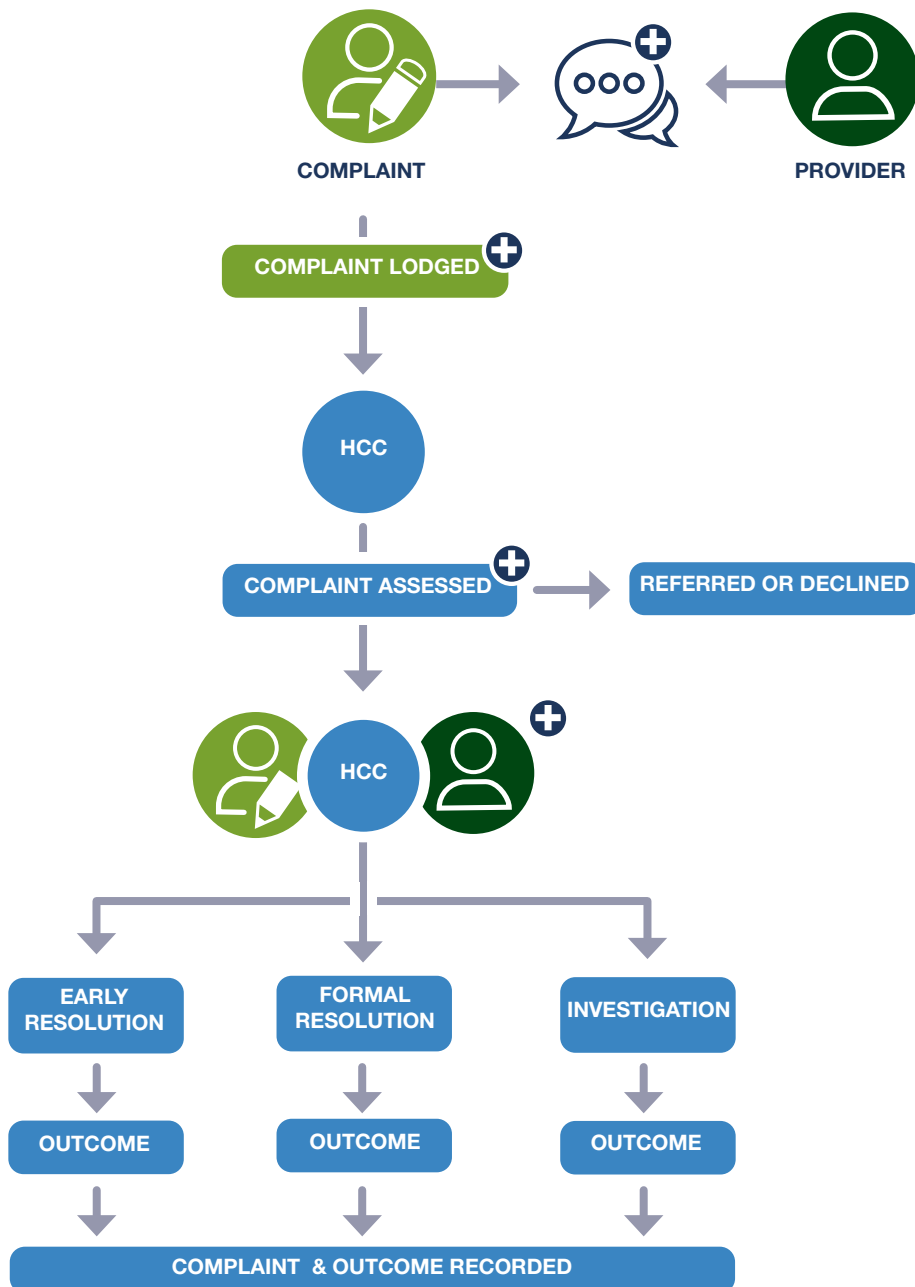
Multiple complaint avenues available to patients



As an unregulated profession there are currently two main avenues where complaints about a sonographer can be addressed: through the state or territory health complaints entity which relies on the National Code of Conduct for Health Care Workers to determine whether a breach has occurred, or the sonographer's employer.

4C: Example of health complaints entity process – Victorian Health Complaints Commission

The following diagram profiles an example of a complaint process used by a health complaints entity, in this case the Victorian Health Complaints Commission.



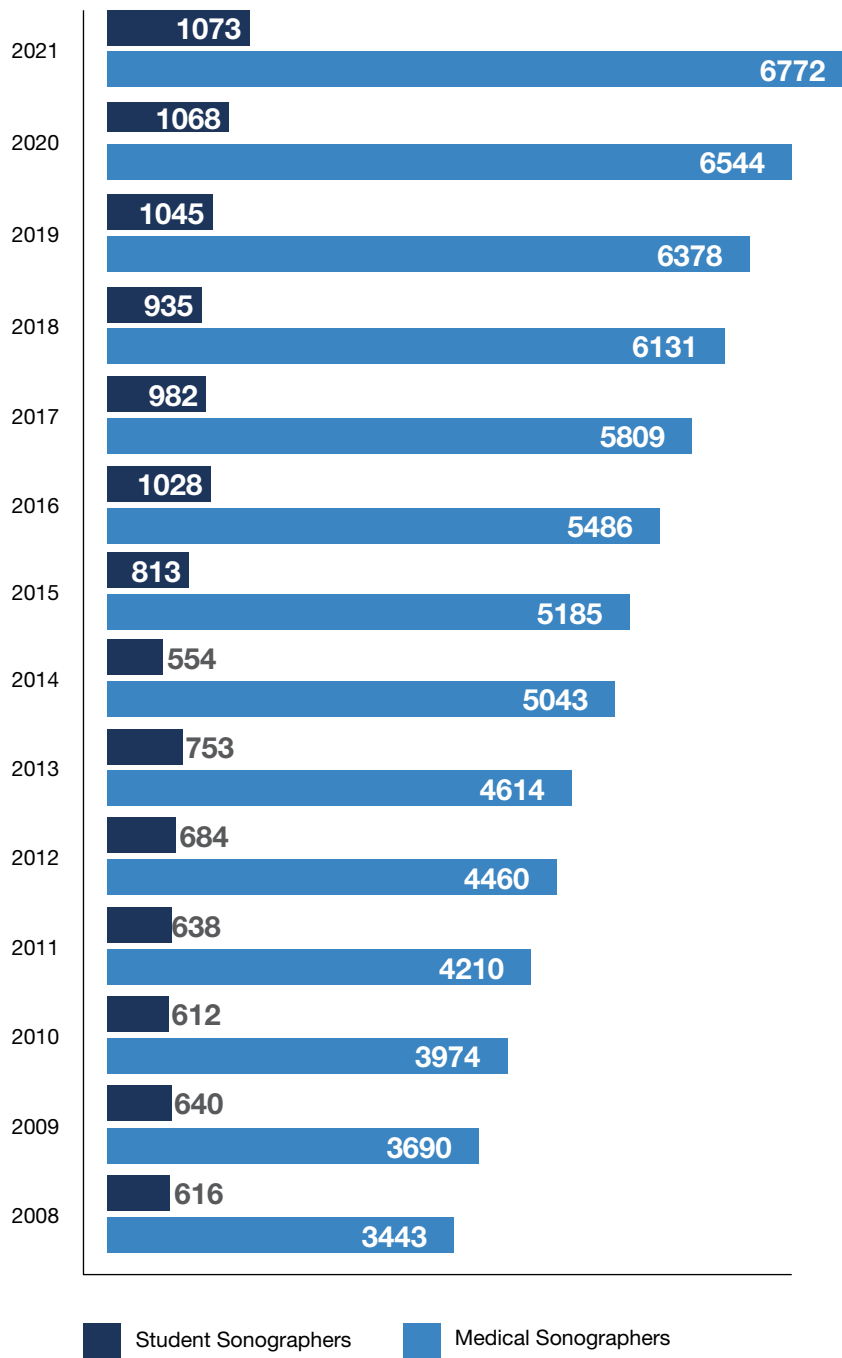
Here, the complainant will first be encouraged to try to resolve the problem directly with the provider. If it remains unresolved the complaint will be lodged and assessed by the Victorian Health Complaints Commissioner (HCC). It may be declined if it doesn't meet the requirements or lacks substance, or it may be referred to a more appropriate agency. All remaining complaints will then be managed by the HCC in consultation with the patient and the provider, and depending on the complexity may be resolved through early resolution, formal resolution or an investigation. The entity keeps records of the complaint and the outcome.

Source: Victorian Health Complaints Commissioner. For the Public – Our process (Internet). Melbourne (VIC): Victorian Health Complaints Commission (Cited 16 January 2020).

Available from: <https://hcc.vic.gov.au/public/our-process>

4D: ASAR accredited medical sonographers and student sonographers in Australia 2008–2021

This chart profiles the growth in the number of accredited medical sonographers and student sonographers from 2008 to 2021, for year ending June.



Historical numbers are approximate

Source: Australian Sonographer Accreditation Registry

APPENDIX 5: SONOGRAPHER PEAK BODIES

AUSTRALASIAN SOCIETY FOR ULTRASOUND IN MEDICINE (ASUM)

www.asum.com.au

ASUM is a multidisciplinary society whose vision is to ensure quality health outcomes when using ultrasound. Its membership includes any health care practitioners who use ultrasound in clinical practice and research. It has over 3,500 members across Australia and New Zealand; approximately one-third of these are sonographers.

ASUM provides an extensive range of education and standards providing a highly respected and diverse profession with essential diagnostic ultrasound guidance for the best of patient care.

AUSTRALASIAN SONOGRAPHERS ASSOCIATION (ASA)

www.sonographers.org

The ASA is the peak body for sonographers in Australasia. With almost 7,000 members, the ASA represents more than 70% of accredited sonographers across Australia.

The ASA provides professional standards and protocols including: the ASA's Sonographer Code of Conduct, Competency Standards for the Entry Level Sonographer, and a range of clinical statements and guidelines.

AUSTRALIAN SOCIETY OF MEDICAL IMAGING AND RADIATION THERAPY (ASMIRT)

www.asmirt.org

ASMIRT is the peak body representing medical radiation practitioners in Australia. With one-quarter of sonographers dual qualified as medical radiation practitioners, a proportion of sonographers hold membership with ASMIRT.

ASMIRT is also responsible for assessing the qualifications and experiences of all sonographers with qualifications obtained outside Australia and facilitates the process for assessing temporary or overseas residents that have graduated with an ASAR accredited postgraduate qualification in ultrasound who want to work in Australia.

AUSTRALIAN SONOGRAPHER ACCREDITATION REGISTRY (ASAR)

www.asar.com.au

ASAR is the accreditation body for sonography education programs and maintains a register for all accredited sonographers for Medicare purposes. Any sonographers who perform Medicare-funded ultrasound examinations on behalf of a medical practitioner must be listed on the ASAR registry. In December 2021 there were: 19 accredited sonographer courses offered across Australia; 7,022 accredited medical sonographers and 1,042 student sonographers.

The ASAR also facilitates a CPD program and approves CPD programs offered by ASA, ASUM and ASMIRT.

MEDICAL RADIATION PRACTICE BOARD OF AUSTRALIA (MRPBA)

www.medicalradiationpracticeboard.gov.au

The MRPBA is responsible for regulating Australia's medical radiation practitioners. As at 2020/21, there were 17,844 medical radiation practitioners registered with MRPBA.

The ASA estimates that 24.5% of Australian accredited medical sonographers are dual qualified and currently maintain their registration as a medical radiation practitioner under the MRPBA.

ATTACHMENT 1: LETTERS OF SUPPORT

Letters received to date:

- Australasian College for Emergency Medicine
- Australasian College for Infection Prevention and Control
- Australasian College of Phlebology
- Australasian College of Physical Scientists and Engineers in Medicine
- Australasian Society for Breast Disease
- Australian College of Rural and Remote Medicine
- Australian Commission on Safety and Quality in Health Care
- Australian Diagnostic Imaging Association
- Australian Health care and Hospitals Association
- Australian Medical Association
- Australian and New Zealand Society for Vascular Surgery
- Australian Rheumatology Association
- Australian Society of Medical Imaging and Radiation Therapy
- Cardiac Society of Australia and New Zealand
- Charles Sturt University
- College of Intensive Care Medicine of Australia and New Zealand
- Dietitians Australia
- Emergency Medicine Ultrasound Group
- Gold Coast Radiology
- Guild Insurance Limited
- Health Services Union (National)
- I-Med Network Radiology
- Indigenous Allied Health Australia
- Integral Diagnostics
- Monash University
- National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners
- National Heart Foundation of Australia
- Perinatal Anxiety and Depression Australia
- Professionals in Cardiac Sciences Australia
- Public Service Association of South Australia
- Qscan Radiology Clinics
- Queensland X-Ray
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists
- Royal Australian and New Zealand College of Radiologists
- Services for Australian Rural and Remote Allied Health Inc.
- United Workers Union Queensland
- University of South Australia
- Victorian Allied Health Professionals Association
- Western Sydney University
- ZEDU – Ultrasound Training Solutions

Friday, 27 November 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

It is surprising that sonographers, who perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,

Dr Elissa Kennedy-Smith

Chair of ACEM Emergency Department Ultrasound Committee



1 October 2021

Jodie Long
Chief Executive Officer
The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000
Email: policy@sonographers.org

Dear Jodie,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

I note sonographers, who perform the majority of diagnostic ultrasound in Australia are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner may be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I support the Australasian Sonographers Association seeking national regulation of sonographers through the Medical Radiation Practice Board of Australia.

Please let me know if there is anything I can do to support this important reform.

Yours sincerely,

Associate Professor Phil Russo
President
ACIPC Ltd





19 November 2020

To the Working Group for Sonographer Regulation

Dear Sir/Madam,

The Australasian College of Phlebology fully supports the Working Group's proposal to formalize sonographer regulation in Australia.

The lack of such regulation for sonographers is surprising and I applaud the Working Group for driving this submission that can only be of great benefit to patients and the community.

Our College members (phlebologists) work closely with vascular sonographers and we fully appreciate the skill, training and professionalism of sonographers. We understand the operator-dependent nature of sonography, and we rely greatly on the technical and interpretive skills of sonographers, which underscore the importance of effective regulation to ensure ultrasound related healthcare is delivered safely and in an accountable manner.

Regulating sonographers under the existing Medical Radiation Practice Board of Australia (MRPBA) makes a great deal of sense and will place sonography on par with other imaging modalities, which is overdue and urgent.

Again, ACP offers its full support for sonographer regulation through MRPBA.

Kind Regards,

Dr Adrian Lim
President, Australasian College of Phlebology

The Australasian College of Phlebology
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Phone +612 9386 1811 Facsimile +612 9386 1822
acp@phlebology.com.au
www.phlebology.com.au
ABN: 48 390 641 608



ACPSEM

Australasian College of Physical Scientists & Engineers in Medicine
ABN 44 005 379 162

10th December 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

Dear Sir/Madam,

On behalf of the Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM), I'm writing to confirm our support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers play a very important role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process. Hence there would be no enforceable measure of professional standards for sonographers, and other patient protections such as recency of practice requirements would be missing.

The ACPSEM supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

If you require any further information regarding the above, please feel free to contact our CEO Sharon Flynn via Sharon.flynn@acpsem.org.au

Yours faithfully,

Richard Dove
President of ACPSEM

Suite 7.12, Aero247 Building
247 Coward St, Mascot NSW 2020, Australia

t: +61 (2) 8305 3901 f: +61 (2) 9700 8023 e: admin.support@acpsem.org.au w: www.acpsem.org.au

The ACPSEM Mission is to advance services and professional standards in clinically-related physical science and engineering professions for the benefit and protection of patients, staff and the community

To the Working Group for Sonographer Regulation
Via email to sonographer_regulation@sonographers.org

RE: letter of support for the proposal to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms the support of the Australasian Society for Breast Disease (ASBD) of the proposal for regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

It remains surprising that sonographers, the highly skilled professionals that perform the large number of diagnostic breast ultrasounds required in Australia, are the only medical imaging professionals not regulated.

They play a vital role in the provision of quality ultrasound services and in particular the detection or exclusion not only of primary breast lesions, but also the complications of breast cancer. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate, in turn causing delayed or additional treatment to the patient. This results not only in adverse outcomes to the patient and their families, but also increased costs to the community.


Patients expect regulation and a good standard of competence in all health practitioners that examine them. Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards, and other patient protections, such as recency of practice requirements, are missing.

We strongly support this proposal as patients across Australia are at risk until this happens.

Please let us know if there is anything we can do to further support this reform.

Yours sincerely,

Elisabeth Elder



ASBD President

On behalf of the ASBD Board of Directors and our multidisciplinary members.



9 November 2020

Working Group for Sonographer Regulation
Via email: sonographer_regulation@sonographers.org

*Re: Support for proposal to add sonographers to the professions regulated under the
Medical Radiation Practice Board of Australia*

To whom it may concern

The Australian College of Rural and Remote Medicine (ACRRM) supports the proposal for sonographers to be regulated by the Medical Radiation Practice Board of Australia under the National Registration and Accreditation Scheme (NRAS).

ACRRM is accredited by the Australian Medical Council to set standards for the specialty of general practice. The College's programs are specifically designed to provide Fellows with the extended skills required to deliver the highest quality Rural Generalist model of care in rural and remote communities, which often experience a shortage of face-to-face specialist and allied health services.

Sonographers are skilled professionals who perform the majority of diagnostic ultrasound procedures in Australia. They play an important role in the provision of quality ultrasound services, working autonomously to capture medical images under the supervision of a medical practitioner who then interprets the results. The resultant diagnosis and treatment is therefore dependent on the provision of appropriate and high quality services. This is especially important for rural and remote patients who may have to travel long distances for these services with resultant economic and personal hardship.

Regulation will promote quality and safety by providing enforceable measures of professional standards for sonographers including recency of practice requirements and other patient protections.

The College commends this initiative.

Yours sincerely

Marita Cowie
Chief Executive Officer

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

TRIM: D20-37427

Jodie Long
CEO
Australasian Sonographers Association

To the Working Group for Sonographer Regulation

Email: sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

This letter confirms the Australian Commission on Safety and Quality in Health Care's support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers work autonomously within radiology and hospital practices and undertake a range of potentially highly invasive investigations which would benefit from the frameworks for professional practice overseen by the Australian Health Practitioner Regulation Agency. Regulating these highly skilled professionals will allow an appropriate national oversight of performance and complaints handling which will further enhance the importance of sonography in the Australian health care system.

The Commission strongly supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia and believes that this will contribute to valuable improvements in patient safety and quality.

Yours sincerely



Dr Robert Herkes
Chief Medical Officer

26 November 2020

19 July 2019

Ms Jodie Long
Chief Executive Officer
Australian Sonographers Association
Delivered via email: Jodie.Long@sonographers.org

Dear Ms Long,

Regulation of Australian sonographers

The Australian Diagnostic Imaging Association (ADIA) strongly supports the Australian Sonographers Association's (ASA) application to register sonographers as a regulated profession under the National Registration and Accreditation Scheme (NRAS).

ADIA is the peak body for private and not-for-profit radiology practices in Australia. Our members provide radiology services in more than 500 locations around country and employ around 2000 sonographers.

Sonographers play a vital role in the provision of quality ultrasound services. Ultrasound is a dynamic imaging modality, with sonographers working autonomously to capture medical images under the supervision of a radiologist or sonologist who interprets the examination. Where a sonographer fails to produce quality images or identify pathologies, the report prepared by the radiologist or sonologist is likely to be inaccurate.

We share the ASA's concerns about sonographers being unregulated in Australia. Should a sonographer behave unethically or inappropriately while providing an ultrasound, there is currently no central complaints process available to the patient; nor is there an enforceable measure of professional standards. ADIA is aware of sonographers who have engaged in highly inappropriate behaviour during intimate ultrasound examinations, but continue to practice due to the lack of regulation.

Regulating sonographers as a medical imaging profession under the Medical Radiation Practice Board of Australia will protect the health and safety of Australian patients, and increase public confidence in the profession.

If there is anything ADIA can do to further support this important reform, please contact me.

Yours sincerely,



Chris Kane
CEO

Tuesday, 28 September 2021

Jodie Long
Chief Executive Officer
The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

Dear Jodie,

This letter confirms that the Australian Healthcare and Hospitals Associations (AHHA) support the regulation of Australia's sonographers under the National Registration and Accreditation Scheme. We agree that such registration can be easily achieved by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia. AHHA understands that your association has already been in discussions with that regulatory body, and they are supportive of this approach.

AHHA understand the critical role sonographers play and recognise that they often work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment. The importance of strategies to improve diagnostic accuracy to maximise patient outcomes and system sustainability was reflected in a recent report we published.¹

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, requirement for professional indemnity insurance and other patient protections. A regulatory framework would also mandate registered practitioners maintaining their competencies to practice and formally undertake accredited continuing professional development which is in line with expectations of the Commonwealth to assure high quality health care.

Please let me know if there is anything else AHHA can do to support this important reform.



John Gregg
Chief Executive Officer

¹ Docking, S & Haddock, R (2021) Issues Brief No. 44: Reducing diagnostic errors relating to medical imaging, Deeble Institute for Health Policy Research, <https://ahha.asn.au/publication/health-policy-issue-briefs/deeble-issues-brief-no-44-reducing-diagnostic-errors-related>

Ref: D19/4307

17 March 2020

COAG Health Council
C/- The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

By email: policy@sonographers.org



AUSTRALIAN MEDICAL
ASSOCIATION
ABN 37 008 426 793

T | 61 2 6270 5400
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42 Macquarie St Barton ACT 2600
PO Box 6090 Kingston ACT 2604

Dear COAG Health Council

The Australian Medical Association (AMA) supports the initiative of the Australasian Sonographers Association to seek regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers are skilled health professionals that perform the majority of diagnostic ultrasound services in Australia. Ultrasound is integral in the diagnosis and management of a wide range of conditions from pregnancy to cancer, and is often the first diagnostic imaging service accessed by patients.

Sonographers capture medical images as part of a multidisciplinary team, under the supervision of medical practitioners who interpret findings of a patient's examination. The outcome of the examination is reliant among other things on the competence and expertise of the sonographer. Where a sonographer fails to produce quality images or identify pathologies, a medical practitioner receives incomplete information, which can delay diagnosis and medical treatment.

Sonographers are the only imaging professionals not regulated under the Australian Health Practitioner Regulation Agency. Should a sonographer behave unethically or inappropriately while providing an ultrasound, there is currently no central complaints process available to the patient, just as there is no enforceable measure of professional standards.

The wellbeing of patients would benefit by adding sonographers to the list of professions regulated by the existing Medical Radiation Practice Board of Australia, and the AMA will support any decision of the COAG Health Council to seek this outcome.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Tony Bartone', written in a cursive style.

Dr Tony Bartone
President

Friday, 26 February 2021

Jodie Long
Chief Executive Officer
The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

Dear Jodie,

This letter confirms our support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Sonographers are highly skilled professionals who perform the majority of diagnostic ultrasound in Australia, and yet are the only medical imaging professionals who are not regulated. Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

We strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Kind Regards,



Mr Peter Subramaniam, FRACS
President, ANZSVS



From the President

20 November 2020

Ms Jodie Long
Chief Executive Officer
Australasian Sonographers Association
On behalf of the Working Group for Sonographer Regulation
Level 2, 93-95 Queen Street
MELBOURNE VIC 3000

Via email: sonographer_regulation@sonographers.org.

Dear Ms Long

Re: Letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

This letter confirms the Australian Rheumatology Association's (ARA) support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia. We have provided support and feedback specifically in relation to Musculoskeletal sonography.

The ARA was concerned to hear that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated. We understand Musculoskeletal sonographers play a role in the provision of quality ultrasound services for people with Musculoskeletal Disease. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

The ARA supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything further, the ARA can do to support this vital reform.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Catherine Hill'.

**Professor Catherine Hill MBBS MSc MD FRACP
President**



Friday, 4 December 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms ASMIRT's support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers play an important role in the provision of quality ultrasound services. They work to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner may be inaccurate. This could impact on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

ASMIRT supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia.

Yours sincerely,

Sally Kincaid
Chief Executive
Australian Society of Medical Imaging and Radiation Therapy

Registered Office:

Suite 1040-1044 (Level 10)
1 Queens Road
Melbourne Vic 3004
Australia

All Correspondence to:

P.O. Box 16234
Collins Street West Vic 8007
Australia

Contact us:

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of Australia and
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ABN 23 003 635 505

Monday, 30 November 2020

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

I write this letter on behalf of the Imaging Council of the Cardiac Society of Australia and New Zealand (CSANZ). This society is the professional body for cardiologists and those working in the area of cardiology including researchers, scientists, cardiovascular nurses, allied health professionals and other healthcare workers. The Society is the chief advocacy group for the profession and aims to facilitate training, professional development and improve medical practice to enhance the quality of care for patients with cardiovascular disease. The imaging council of this society provides guidelines, recommendations and position statements regarding medical imaging practices including echocardiography (also known as cardiac ultrasound).

Importantly, we support the concept of regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

As you may be aware, sonographers are highly skilled medical professionals who perform the majority of diagnostic ultrasound examinations within Australia. Whilst there is mandatory sonographer accreditation via the Australia Sonographers Accreditation Registry (ASAR), there is no regulation of this group of medical imaging professionals. As such, sonographers who are clinically incompetent or unsafe cannot be disqualified or prohibited from practice. Unsafe sonographer practice significantly impacts on the patient outcomes. For example, failure to produce high quality diagnostic images, failure to adequately investigate pathologies, or failure to identify critical, life-threatening complications may result in suboptimal or delayed treatment, unnecessary surgery, or even death. Therefore, there is a significant risk of harm to the health and safety of patients undergoing ultrasound examinations by clinically incompetent or unsafe sonographers.

Without regulation, there is no means to protect patients from unsafe practitioners, there is no avenue for a central patients' complaints process, and there is no enforceable measure of professional standards for sonographers.

Thus, we strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything that the CSANZ I can do to support this vital reform.

Yours sincerely,

A/Prof. Sudhir Wahi, MBBS, MD, FRACP, FCSANZ
Chair, CSANZ Imaging Council



30 November 2020

RE: Letter of support to add Sonographers to the professions regulated under the Medical Radiation Practice Board of Australia.

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers are highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, and are the only medical imaging professionals not regulated and yet involves much more contact with patients.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be very inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing and desperately needed like any other medical profession.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,

A handwritten signature in black ink that reads "Amanda Chandler".

Amanda Chandler

Lecturer in Medical Ultrasound
Course Director | Medical Radiation Science | Faculty of Science

T: +61 2 65829417 | E: achandler@csu.edu.au

CRICOS Provider Number for Charles Sturt University is 00005F. ABN: 83 878 708 551



College of Intensive Care Medicine Of Australia and New Zealand

ABN: 16134292103

24th November 2020 (via email)

Working Group for Sonographer Regulation

Via email: sonographer_regulation@sonographers.org

Re: Letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

On behalf of the College of Intensive Care Medicine of Australia and New Zealand, this letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

I was surprised to hear that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,

Dr Felicity Hawker

Director of Professional Affairs

College of Intensive Care Medicine of Australia and New Zealand

College of Intensive Care Medicine of Australia and New Zealand
Suite 101, 168 Greville St Prahran, Victoria 3181 Australia - Telephone + 61 3 9514 2888 Fax + 61 3 9533 2657
Email: cicm@cicm.org.au – Website: www.cicm.org.au

30 November 2020

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

I was surprised to hear that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,



Bree Murray
General Manager Regulatory Services



Saturday 28 November 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms the support of the Emergency Medicine Ultrasound Groups (EMUGs) organisation, for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

EMUGs is a group of Emergency Physicians who both regularly use, and are interested in advancing the practice of, focused ultrasound in the Emergency Department. We therefore frequently collaborate with our sonographer colleagues, and also rely on their skills, knowledge and expertise in our day-to-day practice. Many of us were surprised to hear that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment, or, in the worst cases, an adverse outcome or death.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

We strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia.

Please let us know if there is anything we can do to support this vital reform.

Yours sincerely,



Dr Melody Hiew

Emergency Physician

Co-Chairperson of Emergency Medicine Ultrasound Groups (EMUGs)

Thursday, 22 August 2019

TO: COAG Health Council
C/- The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

To Australia's Health Ministers,

Re: Regulation of Australian Sonographers

Gold Coast Radiology strongly supports the application to regulate sonographers as a registered profession under the Australian Health Practitioner Regulation Agency (AHPRA).

As a health service that employs many diagnostic imaging professionals, part of our responsibility is to ensure that our patients receive quality medical imaging services that are delivered safely and respectfully. Our organisation employs a total of 25 clinical staff, including 13 sonographers.

Sonographers play a vital role in the provision of quality ultrasound services. Ultrasound is a dynamic imaging modality, with sonographers working autonomously to capture medical images under the supervision of a radiologist or sonologist who interprets the examination. Where a sonographer fails to produce quality images or identify pathologies, the report prepared by the radiologist or sonologist is likely to be inaccurate.

Sonographers are also the only medical imaging profession which is not regulated under AHPRA. We have ongoing concerns about sonographers not being regulated. Should a sonographer behave unethically or inappropriately while providing an ultrasound, there is currently no central complaints process available to the patient; nor is there an enforceable measure of professional standards. We have also heard about sonographers in other companies who have engaged in highly inappropriate behaviour during intimate ultrasound examinations but continue to practice due to the lack of regulation.

I urge you to regulate sonographers as a registered medical imaging profession under the Medical Radiation Practice Board of Australia. This change is essential to protect the health and safety of Australian patients and increase public confidence in the profession.

Please let me know if there is anything I can do to support this information reform.

Yours sincerely,



Dr Michael Ryan
Managing Radiologist
Gold Coast Radiology

Hope Island
Phone: 07 5514 2555 Fax: 07 5514 2511
Suites 1-4 Harbour Point, 10 Santa Barbara Road,
Hope Island Qld 4212

Surfers Paradise
Phone: 07 5655 1988 Fax: 07 5655 1911
Circle On Cavill, Shop 5, 3184 Surfers Paradise Boulevard,
Surfers Paradise Qld 4217 **GPS: Search for 9 Ferry Avenue**

Monday, 25 January 2021

To the Working Group for Sonographer Regulation

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms Guild Insurance Limited support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Guild Insurance represents a considerable portion of individual practitioners in the Allied Health sector who require registration with their respective Boards as regulated by Ahpra. This places Guild Insurance in a unique situation where we are intimately involved in defending allegations against these registered practitioners and have significant database of risk information and how it relates to the safety of the Australian public. We are also the professional indemnity insurance provider to most Australasian sonographers.

We understand the role sonographers play in the provision of ultrasound services in the Australian community. We also appreciate the complexities involved in defending sonographers against allegations of wrongdoing and how this can impact both the sonographer and the member of the public who has made the allegation. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process (hence the absence of enforceable undertakings for disciplinary matters), there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

Guild Insurance, with our extensive knowledge of representing Australia Allied Health practitioners support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,



Chris Ristevski
Partner Acquisition Manager
Guild Insurance Limited

Tuesday, 8 December 2020

Email: sonographer_regulation@sonographers.org

To whom it may concern

RE: Letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

The Health Services Union writes to add support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

HSU cover all areas of health, occupations, sectors, and industries, and is the only union covering health professionals across Australia. Our members include all health professions, regulated and unregulated, and include many sonographers in all states and territories. Sonographers, along with other medical imaging professionals, hold both branch and national offices within the union.

Sonographers are highly skilled professionals who perform most diagnostic ultrasounds in Australia, and yet are the only medical imaging professionals not regulated.

They play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the, principally, indirect supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

The dangers and benefits of including sonographers on the Medical Radiation Practice Board of Australia as regulated practitioners are detailed in the submission of the Australasian Sonographers Association to include them in National Registration and Accreditation Scheme. HSU supports the submission of the Australasian Sonographers Association. HSU supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia.

If you have any queries please contact Leigh Svendsen at the national office on 0418 538 989 or leighs@hsu.net.au

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Lloyd Williams', written in a cursive style.

Lloyd Williams
National Secretary

HSU National

Suite 46, Level 1, 255 Drummond Street, Carlton VIC 3053
(03) 8579 6328 | hsu@hsu.net.au | www.hsu.net.au | ABN 68 243 768 561



Tuesday, 24 November 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms the strong support of the I-MED Radiology Network for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers play a vital role in the provision of quality ultrasound services. They are highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They more often than not work independently to capture medical images under the supervision of a medical practitioner who interprets the examination. Sonography is a dynamic Imaging Modality and if they fail to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,



Dr Ronald C Shnier

MBBS FRANZCR

Chief Medical Officer I-MED Radiology Network



8 January 2021

Working Group for Sonographer Regulation
sonographer_regulation@sonographers.org

To whom it may concern

Re: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

Indigenous Allied Health Australia (IAHA) support the submission to the Ministerial Health Council, prepared by the Working Group for Sonographer Regulation, seeking for sonography to be added to the professions regulated under the National Registration and Accreditation Scheme (NRAS), specifically through the Medical Radiation Practice Board of Australia.

Sonographers are highly skilled professionals that perform the majority of diagnostic ultrasound in Australia and, we understand, are the only medical imaging professionals not currently regulated under NRAS. The submission prepared for Health Ministers by the Working Group for Sonographer Regulation presents a substantial and compelling case, which addresses the objectives and requirements for professional practice and regulation under the NRAS.

IAHA is the national, member-based Aboriginal and Torres Strait Islander allied health peak organisation and represent 29 different allied health disciplines within our membership, including sonography. IAHA lead in health workforce development and support, to increase the Aboriginal and Torres Strait Islander health workforce, to increase accessibility and quality of care, and to improve the health and wellbeing of Aboriginal and Torres Strait Islander peoples.

IAHA does not contend for all health professions to be regulated under the NRAS and note that several allied health professions that provide highly specialised clinical health services are not regulated under NRAS. That said, the sonography profession believes this is the appropriate way forward for the profession and have developed a strong case to be regulated through the Medical Radiation Practice Board of Australia. IAHA believes this is entirely consistent with the overarching imperative of protecting public health and safety. We note the Working Group for Sonographer Regulation's concern that, without regulation, patients have no central complaints process; there is no enforceable measure of professional standards for sonographers; and other patient protections, such as recency of practice requirements.

On a related matter, professions regulated under NRAS have, since 2019, expressed a commitment to ensuring Aboriginal and Torres Strait Islander Peoples have access to health services that are culturally safe and free from racism.

IAHA have worked closely with Ahpra, through the Aboriginal and Torres Strait Islander Health Strategy Group, in the development of the *National Scheme's Aboriginal and Torres Strait Islander Health and Cultural Safety Strategy*, to support the inclusion of cultural safety within professional standards for registered professions. Cultural safety is a key aspect of patient health and safety and one that has not been addressed adequately to date.

Increasing culturally safety of the health workforce is vital for Aboriginal and Torres Strait Islander people to have equitable access to care which supports long, healthy lives. Culturally safe and responsive care is as important for the provision of sonography services as it is any other health professional care. IAHA understands the sonography profession recognises the role they must play in improving the health and wellbeing of Aboriginal and Torres Strait Islander people and to ensure services are cultural safe and responsive. Regulation under NRAS will reinforce that commitment.

Finally, very little information on health workforce and service capacity is collected or made available nationally for health professions that are *not* regulated under NRAS. This severely compromises health service planning and capacity assessment for several allied health professions that provide vital services, are employed in public hospital and health services, and/or are eligible for rebates under the MBS. This gap in key information obscures the lack of access many Aboriginal and Torres Strait Islander people and communities have to crucial health services, including sonography, as well as the growth required in Aboriginal and Torres Strait Islander representation within the discipline. Action that helps to highlight and add impetus to those gaps being filled is welcome and aligns with the imperative of public safety that is the purpose of the NRAS.

These issues have been raised on many occasions previously, including in the June 2020 report by the then National Rural Health Commissioner, Professor Paul Worley, to the Australian government on *Improvement of Access, Quality and Distribution of Allied Health Services in Regional, Rural and Remote Australia*.

IAHA supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia as an important development in the profession and as a suitable way to increase patient safety.

Kind regards



Paul Gibson
Director, Policy and Research
Indigenous Allied Health Australia



Friday, 6 September 2019

TO: COAG Health Council
C/- The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

To Australia's Health Ministers,

Re: Regulation of Australian Sonographers

Integral Diagnostics strongly supports the application to regulate sonographers as a registered profession under the Australian Health Practitioner Regulation Agency (AHPRA).

As a health service that employs many diagnostic imaging professionals, part of our responsibility is to ensure that our patients receive quality medical imaging services that are delivered safely and respectfully. Our organisation employs a total of 548 clinical staff, including 123 sonographers.

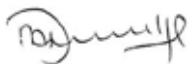
Sonographers play a vital role in the provision of quality ultrasound services. Ultrasound is a dynamic imaging modality, with sonographers working autonomously to capture medical images under the supervision of a radiologist or sonologist who interprets the examination. Where a sonographer fails to produce quality images or identify pathologies, the report prepared by the radiologist or sonologist is likely to be inaccurate.

Sonographers are also the only medical imaging profession which is not regulated under AHPRA. We have ongoing concerns about sonographers not being regulated. Should a sonographer behave unethically or inappropriately while providing an ultrasound, there is currently no central complaints process available to the patient; nor is there an enforceable measure of professional standards. We have also heard about sonographers in other companies who have engaged in highly inappropriate behaviour during intimate ultrasound examinations but continue to practice due to the lack of regulation.

I urge you to regulate sonographers as a registered medical imaging profession under the Medical Radiation Practice Board of Australia. This change is essential to protect the health and safety of Australian patients and increase public confidence in the profession.

Please let me know if there is anything I can do to support this information reform.

Yours sincerely,



Mica Duncalfe
Group HR Director
Integral Diagnostics
mduncalfe@idxgroup.com.au





DR JENNY SIM PHD
PROFESSOR
HEAD

DEPARTMENT OF MEDICAL IMAGING AND RADIATION SCIENCES
SCHOOL OF PRIMARY AND ALLIED HEALTH CARE
FACULTY OF MEDICINE, NURSING AND HEALTH SCIENCES
Phone: (03) 9905 3753
Mobile: +61 (0)456 969 462
Email: jenny.sim@monash.edu

30th November 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

**RE: letter of support to add sonographers to the professions regulated under the
Medical Radiation Practice Board of Australia**

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers, who are highly skilled professionals performing the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,

Professor Jenny Sim
Head of Department Medical Imaging and Radiation Sciences

Friday, 4 December 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

I was surprised to hear that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely



Karl Briscoe

Chief Executive Officer

National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners
Formerly NATSIHWA (National Aboriginal and Torres Strait Islander Health Worker Association)

27th October 2021

Jodie Long
Chief Executive Officer
The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

Dear Jodie,

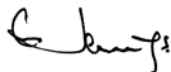
This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme, adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

I support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this important reform.

Yours sincerely,



Garry Jennings
Prof Garry Jennings AO
Interim Group CEO
National Heart Foundation

Canberra ACT

Unit 1, Level 1,
17-23 Townshend St
Phillip ACT 2606
(02) 6282 5744

Sydney NSW

Level 3,
80 William St
East Sydney
NSW 2011
(02) 9219 2444

Darwin NT

Level 3,
21 Knuckey St
Darwin NT 0800
(08) 8982 2700

Brisbane QLD

1 Abbotsford Rd
Bowen Hills
QLD 4006
(07) 3872 2500

Adelaide SA

155-159 Hutt St
Adelaide
SA 5000
(08) 8224 2688

Melbourne VIC

Level 2,
850 Collins St
Docklands
VIC 3008
(03) 9329 8511

Perth WA

334 Rokeby Rd
Subiaco
WA 6008
(08) 9388 3343

Hobart TAS

Level 1,
89 Brisbane St
Hobart
TAS 7000
(03) 6224 2722



27 September 2021

Jodie Long
Chief Executive Officer
The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000
policy@sonographers.org

Dear Jodie,

I am writing to confirm my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

At Perinatal Anxiety & Depression Australia, we understand the vital role sonographers play in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This then impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

We also see sonographers as a part of the key 'care team' that support people on their parenting journey and as such can greatly influence and contribute to the well-being of the expecting parent. Without regulation, there is no best practice approach to professional practice, including enforceable measures of professional standards for sonographers. There is also the risk of other patient protections not being in place and people have no central complaints process.

I therefore strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia.

I would welcome an opportunity to discuss this letter of support with you directly and can be reached on 0430 496 460 or via Julie.borninkhof@panda.org.au

Yours sincerely

Julie Borninkhof
Chief Executive Officer

PANDA – Perinatal Anxiety & Depression Australia Inc A007201S

810 Nicholson St
North Fitzroy
VIC 3068

T 03 9926 9090
F 03 9482 6210
E info@panda.org.au

National Helpline
1300 726 306
panda.org.au

ABN 64 063 647 374
All donations over \$2
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Working Group for Sonographer Regulation

Consultation questions – Submission to add sonographers to the NRAS

Tuesday, 1 December 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms Professionals in Cardiac Sciences Australia (PiCSA) support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia (MRPBA).

While there is a registry body already available, Australian Sonographers Accreditation Registry (ASAR), they do not have the power to enforce remedial action on any sonographers reported as not meeting a safe standard of practice. It is PiCSA's belief that adding this profession to the MRPBA will provide greater transparency, accountability and safety to the public.

Sonographers perform their duties with no medical involvement during the image acquisition and quantification process. Decisions made regarding patient care need to be based on a sonographer that is fully competent in image acquisition and quantification. Specialists depend on competent sonography to ensure diagnoses are not missed or the wrong treatment is provided to the patient putting them at increased risk for morbidity and mortality. The sonography profession works hard in its educational requirement but they do not have the power to enforce regulatory measures. There needs to be robust mechanisms in place to ensure that the public is safe from unregulated and unmonitored behaviour.

PiCSA are unaware of any existing complaints process available to the public in regulating sonography. Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements.

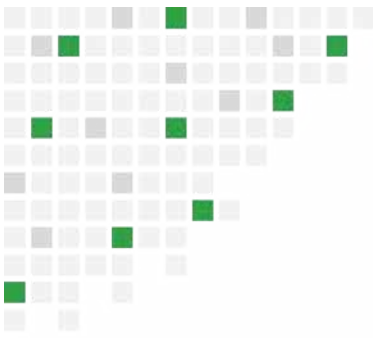
PiCSA strongly supports the national regulation of sonographers through the MRPBA as sonography is a complex field with a high level of inter user variability depending on competency attained and regulation in process.

Please feel free to contact PiCSA should you have any further enquiries.

Yours faithfully

Dean Metwally

Dean Metwally
Chair of Professionals in Cardiac Sciences Australia
chair@picsa.org.au



GPO Box 2170, Adelaide, SA 5001
122 Pirie Street, Adelaide, SA 5000
Phone: (08) 8205 3200
Fax: (08) 8223 6509
enquiries@cpsu.asn.au
www.cpsu.asn.au

25 November 2020

Ms Jodie Long, CEO
Australasian Sonographers Association
on behalf of the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

Dear Jodie

Re: Letter of support to add Sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

This letter confirms the Public Service Association's support for the regulation of Australia's Sonographers under the National Registration and Accreditation Scheme, by adding Sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia. There were no objections from PSA members to this proposal.

The PSA is aware that Sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated. We understand that some Sonographers are already registered under APHRA due to having other professions such as Radiographers.

The PSA understands Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a Sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

The PSA acknowledges that without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for Sonographers, and other patient protections, such as recency of practice requirements, are missing.

However, the PSA seeks reassurance that our members who are Sonographers within South Australia with existing qualifications will not be disadvantaged in any way and will be able to continue to practice.

The PSA strongly supports the national regulation of Sonographers through the Medical Radiation Practice Board of Australia, as patients across Australia are at risk until this happens.

Yours sincerely

Nev Kitchin
General Secretary



Friday, 27 November 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

I was surprised to hear that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, are the only medical imaging professionals not regulated.

I understand sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,



Lynda Hansen

Qscan Radiology Ultrasound Modality Head.

6 September 2019

TO: COAG Health Council
C/- The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

To Australia's Health Ministers,

Re: Regulation of Australian Sonographers

Queensland X-Ray strongly supports the application to regulate sonographers as a registered profession under the Australian Health Practitioner Regulation Agency (AHPRA).

As a health service that employs many diagnostic imaging professionals, part of our responsibility is to ensure that our patients receive quality medical imaging services that are delivered safely and respectfully. Our organisation employs a total of 614 clinical staff, including 154 sonographers.

Sonographers play a vital role in the provision of quality ultrasound services. Ultrasound is a dynamic imaging modality, with sonographers working autonomously to capture medical images under the supervision of a radiologist or sonologist who interprets the examination. Where a sonographer fails to produce quality images or identify pathologies, the report prepared by the radiologist or sonologist is likely to be inaccurate.

Sonographers are also the only medical imaging profession which is not regulated under AHPRA. We have ongoing concerns about sonographers not being regulated. Should a sonographer behave unethically or inappropriately while providing an ultrasound, there is currently no central complaints process available to the patient; nor is there an enforceable measure of professional standards. We have also heard about sonographers in other companies who have engaged in highly inappropriate behaviour during intimate ultrasound examinations but continue to practice due to the lack of regulation.

We urge you to regulate sonographers as a registered medical imaging profession under the Medical Radiation Practice Board of Australia. This change is essential to protect the health and safety of Australian patients and increase public confidence in the profession.

Please let me know if there is anything I can do to support this information reform.

Yours faithfully



Peter Davis
General Manager
Queensland X-Ray



30 November 2020

Working Group for Sonographer Regulation

Via email sonographer_regulation@sonographers.org

To whom it may concern,

Re: Letter of support | inclusion of the sonographer profession in the National Registration and Accreditation Scheme

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) is pleased to support the Australasian Sonographers Association (ASA) in its application to include the sonographer profession in the National Registration and Accreditation Scheme under the Medical Radiation Practice Board of Australia.

The College believes patients receiving medical ultrasound examinations should reasonably expect that the person who is scanning them is held to a high regulatory standard to ensure they are safe and provided with a high-quality service. However, sonographers who perform the majority of diagnostic medical ultrasound services are not regulated.

RANZCOG understands sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

The College supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia; patients across Australia are at risk until this happens.

If RANZCOG can provide any further advice in relation to this matter, please do not hesitate to contact me at president@ranzco.edu.au.

Yours sincerely,

Dr Vijay Roach
President



4 November 2022

Ms Jodie Long
Chief Executive Officer
Australian Sonographers Association

Delivered via email: Jodie.Long@sonographers.org

Dear Ms Long,

Regulation of Australian sonographers

The Royal Australian and New Zealand College of Radiologists (RANZCR) is the peak body advancing patient care and quality standards in the clinical radiology and radiation oncology sectors. It represents over 4,500 members in Australia and New Zealand.

RANZCR's role is to drive the appropriate, proper and safe use of radiology and radiation oncology medical services. This includes supporting the training, assessment and accreditation of trainees; the maintenance of quality and standards in both specialties; and workforce mapping to ensure we have the specialists available to support the sectors in the future.

Ultrasound is an important diagnostic modality that is used in the diagnosis and treatment of a large proportion of the Australian population with more than 11 million Medicare-funded ultrasound services performed each year.

Sonographers are highly-trained and highly-valued members of the medical imaging team who often work autonomously to capture ultrasound images under the supervision of a radiologist or reporting medical practitioner who interprets the examination and provides a written report back to the referrer. Sonographers often interact with patients on a one to one basis and regularly perform intimate examinations as part of their role.

We know that the vast majority of sonographers are professional and demonstrate a high level of integrity. However, we believe that it is essential that sonographer registration is regulated to ensure that patients have a mechanism to call out inappropriate practice and know that enforceable action can be taken to provide patient safety.

RANZCR has reviewed the submission *Protecting the Public and Preventing Harm by Completing the Regulation of Medical Imaging Professionals* (May 2022) and is very supportive of the Australian Sonographer's Association (ASA) goal to have sonographers registered and regulated under the Medical Radiation Practice Board of Australia and believe this a necessary step in protecting the health and safety of the Australian population.



Please let me know if we can assist in any way with advancing this important reform. I can be contacted via Melissa Doyle, Senior Manager, Policy, Advocacy and Faculties, at Melissa.doyle@ranzcr.edu.au or 02 9268 9777.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Gerard Goh', written in a cursive style.

Prof Gerard Goh
Dean
Faculty of Clinical Radiology



SARRAH

Services for Australian Rural and Remote Allied Health

Tuesday, 1 December 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

Letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter is to confirm that Services for Australian Rural and Remote Allied Health (SARRAH) supports the submission prepared by the Working Group for Sonographer Regulation to the Ministerial Health Council for Australia's sonographers to be added to the professions regulated under the National Registration and Accreditation Scheme (NRAS), specifically through the Medical Radiation Practice Board of Australia.

By way of background, SARRAH is a national, multidisciplinary member-based association and has operated for 25 years as the peak body representing rural and remote allied health professionals (AHPs) working across the public, community and private sectors, across health, disability, aged care and other settings. SARRAH advocates on behalf of rural and remote communities in order to promote access to allied health services and support equitable and sustainable health and well-being. SARRAH is the only peak body to be fully focused on rural and remote allied health working across all disciplines. More information is available at <http://www.sarrah.org.au/>.

Sonographers are highly skilled professionals that perform the majority of diagnostic ultrasound in Australia and, we understand, the only medical imaging professionals not regulated. The submission prepared for Health Ministers by the Working Group for Sonographer Regulation presents a substantial and compelling case, directly addressing the objectives and requirements for professional practice and regulation under the NRAS.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed, inadequate or additional treatment and risk.

There are numerous university qualified professions that provide highly specialised and impactful clinical health services to patients, but are not regulated under NRAS: generally being self-regulated and effectively so. We understand this is not the case for sonographers and believe their argument to be regulated through the Medical Radiation Practice Board of Australia is appropriate to their practice and entirely consistent with the overarching imperative of protecting public health and safety.

We note the Working Group for Sonographer Regulation's concern that without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements. The situation is clearly inconsistent with the expectations and requirements of other health professions and it is commendable that sonographers are seeking to have these patient safety protections established.

On a broader front, SARRAH notes that many of the allied health professionals who self-regulate very effectively, and while some of those are actively seeking regulation under NRAS not all do. SARRAH does not seek to argue universally for professional regulation through NRAS, but will consider supporting allied health professions where they believe inclusion under NRAS is of benefit to the public and are able to present a compelling case: as is the present case.

Notwithstanding arguments about the necessity or otherwise of NRAS registration, there are very significant negative implications at a health system and planning level which are, unfortunately, associated with whether health professions are NRAS regulated or not. Specifically, very little health workforce and service capacity information is available nationally for non-NRAS health professions, including numerous allied health professions. Yet, they provide vital services, are employed in public hospital and health services and/or are eligible for rebates under the MBS. The lack of information, especially for non-NRAS health professionals, obscures the difficulty many people in rural and remote Australia have accessing much needed health services. This contributes to long-standing and well recognised differential in health outcomes experienced by people living in rural and remote Australia. Some population groups can be at particular risk, including Aboriginal and Torres Strait Islander Australians, aged Australians and those with disability.

The present default situation is that regulation under NRAS determines whether governments and others seeking to ensure the health of Australians have important information on service delivery and patient access options or not. Many of the health services crucial to ensuring people are able to develop, retain and recover good health are not regulated with NRAS. These issues have been raised on many occasions previously, including in the June 2020 report by the then National Rural Health Commissioner, Professor Paul Worley, in his report to the Australian government on *Improvement of Access, Quality and Distribution of Allied Health Services in Regional, Rural and Remote Australia*. Action in response to the Commissioner's report should also be prioritised.

SARRAH strongly supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia as an important development in patient safety.

I hope this information is of assistance.

Yours faithfully,

A handwritten signature in cursive script, appearing to read 'C. Maloney', written in dark ink on a white background.

Catherine Maloney

CEO, SARRAH



BIGGER. STRONGER. UNITED.
THE NATIONAL SECRETARY
JO SCHILLER PRESIDENT

Wednesday, 25 November 2020

The Working Group for Sonographer Regulation

Via email: sonographer_regulation@sonographers.org

RE: The urgent addition of sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms the support of the United **Workers** Union for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme, by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Sonographers are highly skilled professionals that perform the majority of diagnostic ultrasound in Australia yet are the only medical imaging professionals not currently regulated.

Sonographers are vital in the provision of quality ultrasound services as they work autonomously to provide the medical **images** in collaboration with a supervising medical practitioner.

If a sonographer fails to identify pathology, or produces substandard images, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment which leads to poorer health outcomes

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements are missing.

United Workers Union strongly supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia. This vital reform requires your urgent attention, as patients across Australia are at risk until this occurs.

Please also find attached our short responses to questions 1A and detailed response to question 5 (5.1; 5.2; 5.3)



BIGGER. STRONGER. UNITED.

TIMCSIHEDY SECR:TM Y
JO SCFOFELII PAESICENT

If there is anything further required to support this reform, please contact us via our Public Sector Health Lead Toni Blake on email: toni.blake@unitedworkers.org.au or call on mobile: **0400 144 286**.

Yours sincerely,

A handwritten signature in black ink that reads "Sharron Caddie".

Sharron Caddie

Public Sector Director



Tuesday, 15 December 2020

To the Working Group for Sonographer Regulation
Via email to sonographer_regulation@sonographers.org

RE: letter of support to add sonographers to the professions regulated under the Medical Radiation Practice Board of Australia

To whom it may concern,

This letter confirms my support for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

It is frustrating to note that sonographers, the highly skilled professionals that perform the majority of diagnostic ultrasound in Australia, remain the only medical imaging professionals not regulated.

Sonographers play a vital role in the provision of quality ultrasound services. They work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.

Without regulation, patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as recency of practice requirements, are missing.

I strongly support the national regulation of sonographers through the Medical Radiation Practice Board of Australia, as patients across Australia are at risk until this happens.

Please let me know if there is anything I can do to support this vital reform.

Yours sincerely,

Brooke Osborne

Program Director: Medical Sonography
UniSA: Allied Health & Human Performance

Bonython Jubilee Building Rm BJ1-25 | City East Campus
University of South Australia
GPO Box 2471 Adelaide SA 5001 | Internal Post Code CEA-14
t +61 8 8302 9919 | e brooke.osborne@unisa.edu.au

31 October 2019

COAG Health Council
C/- The Australasian Sonographers Association
Level 2, 95 Queen Street
Melbourne VIC 3000

Email: policy@sonographers.org

To Whom it may concern

SONOGRAPHERS NEED NATIONAL REGULATION PATIENTS ARE AT RISK

This letter confirms the Victorian Allied Health Professionals Association's (VAHPA) strong support to regulate Australia's sonographers under the National Registration and Accreditation Scheme by including sonographers to the professions regulated by the Medical Radiation Practice Board of Australia.

Victoria Allied Health Professionals Association (VAHPA)

The Victorian Allied Health Professionals Association ("VAHPA") is a specialist union representing thousands of Allied Health members working in many sectors, including in public hospitals, integrated and stand-alone community health, disability, as well as in private radiology, podiatry, physiotherapy, occupational therapy clinics, Sonography and so on.

Medical Diagnostic Ultrasound

Medical diagnostic ultrasound is often the first diagnostic imaging service accessed by patients during pregnancy, for diagnosing cancer and the diagnosis of a wide range of other medical conditions. It is also the preferred diagnostic imaging service for children, as it does not use radiation.

Sonographers have a fundamental role in providing ultrasound examinations to these patients. Without national regulation, the safety of our patients are at risk, and there is no enforceable measure of the quality of ultrasound examinations they receive.



National regulation of sonographers is required to protect the health and safety of patients from harm due to practitioner failures such as missed or misdiagnosis, unprofessional behaviour, lack of infection control, and incorrect use of equipment.

The regulation of sonographers will provide nationally consistent and enforceable patient protections. The public will also benefit from a simplified complaint handling mechanism, replacing what is currently complex and confusing.

If you require any further information regarding this letter of support, or the need for sonographer regulation please contact, Andrew Hewat, VAHPA Assistant Secretary, by phone on 0427 673 205 or email on Andrew.hewat@vahpa.asn.au

I look forward to hearing of ongoing progress towards national sonographer regulation.
Yours sincerely,

Yours sincerely,

A handwritten signature in black ink, appearing to read 'C. McGregor', with a stylized flourish at the end.

Craig McGregor
Secretary
Victorian Allied Health Professionals Association
(By Email)



26th November 2020

To whom it may concern,

Re: Sonographer regulation

With this letter I wish to confirm my support for the regulation of Australian sonographers under the National Registration and Accreditation Scheme.

Sonographers are highly skilled health professionals who play an essential role in the provision of quality patient care by the acquisition, measurement and reporting of ultrasound images.

Regulation would help to enable the continuation of such care by ensuring more consistent professional standards for sonographers and improved protections for patients.

Adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia would be a very positive step.

Yours sincerely,

Paul Stoodley

Dr Paul Stoodley | Senior Lecturer

School of Medicine [Blacktown Clinical School and Research Centre]

E: P.Stoodley@westernsydney.edu.au

P: (02) 9851 6052 | M: 0432 688 511

westernsydney.edu.au



25 November 2020

To the Working Group for Sonographer Regulation

Via email to sonographer_regulation@sonographers.org

**RE: letter of support to add sonographers to the professions regulated under the
Medical Radiation Practice Board of Australia**

To whom it may concern,

This letter confirms the support of Zedu Ultrasound Training and its Directors for the regulation of Australia's sonographers under the National Registration and Accreditation Scheme, achieved by adding sonographers to the list of professions regulated by the Medical Radiation Practice Board of Australia.

Zedu – its predecessor organisation and current clinical Director – has provided training services over several decades. Over that time it has been a constant source of frustration to know that sonographers – highly skilled professionals that perform the majority of diagnostic ultrasound in Australia – are the only medical imaging professionals that are not regulated.

Sonographers play a vital role in the provision of quality ultrasound services, as well as the training of other sonographers and medical professionals.

- In the diagnostic context they work autonomously to capture medical images under the supervision of a medical practitioner who interprets the examination. If a sonographer fails to produce quality images or identify pathologies, the report prepared by the medical practitioner is likely to be inaccurate. This impacts on the diagnosis and treatment of the patient, which may include delayed or additional treatment.
- In a training context they work to pass on knowledge and skills to sonographers in training – and other medical professions – necessary to fully utilise the technology safely and effectively.

In the absence of regulation:

- Patients have no central complaints process, there is no enforceable measure of professional standards for sonographers, and other patient protections, such as continuing medical education and recency of practice requirements, are absent.
- Sonographers in training and other medical professionals receiving guidance from sonographers cannot be assured that they are receiving education to an appropriate standard.

As an organisation Zedu – and in turn its Directors – strongly supports the national regulation of sonographers through the Medical Radiation Practice Board of Australia as patients, students of ultrasound and other stakeholders are at risk until this happens.

Please contact us if there is anything we can do to support this vital reform.

Yours sincerely,

Suean Pascoe
Director

Michael Duncan
Director



