Government Response to the Review of Organ and Tissue Donation Procedures Select Committee’s Report

April 2009
Government Response to the Organ and Tissue Donation: Report of the Review of Organ and Tissue Donation Procedures Select Committee

Australia has a successful record of organ transplantation however there remains a significant waiting list which cannot be resolved without increasing numbers of organ and tissue donation. In response to this the Commonwealth Government has dedicated significant funding towards reviewing organ and tissue donation in Australia and establishing a coordinated and consistent approach from all the jurisdictions.

As part of the Queensland Government’s commitment to increasing organ and tissue donation, the Legislative Assembly appointed the Review of Organ and Tissue Donations Procedures Select Committee (the Committee) on 12 May 2008. The Committee was tasked with investigating whether a system of presumed consent (‘opt-out’) should be introduced and additional options that should be considered to increase public awareness of and improve the organ and tissue donation rates in Queensland.

On 28 October 2008 the Committee’s report was tabled in the Legislative Assembly. The report does not support Queensland adopting a system of presumed consent. The Committee found presumed consent did not have strong public support and considered vulnerable members of the community could be disadvantaged. The Committee found a number of reasons associated with low organ and tissue donation rates such as identifying organ donors in emergency departments, uncoordinated procedures, lack of access to beds, and difficulties with obtaining consent from the next of kin. In response the “Organ and Tissue Donation: Report of the Review of Organ and Tissue Donation Procedures Select Committee” makes 24 recommendations across a number of areas including donor identification and community education; reinforcing and improving donor consent and processes; a coordinated organ and tissue donation system and community education. These were all considered of more significance in increasing organ and tissue donation rates than moving to a system of presumed consent.

With the exception of recommendation 16 and 22, all of the Committee’s recommendations are supported by the Government. Recommendation 4 is supported in principle. The Government recognises and supports the benefits inherent in a consistent approach however it is proposed that any amendments required not be undertaken by Queensland as this will form part of the work of the newly established Australian Organ Donation and Transplantation Authority (National Authority). Recommendation 16 is no longer relevant due to the new five year Australian Health Care Agreement finalised on 28 November 2008 which includes increased funding for acute care services. Consent for non-harmful medical intervention for the purposes of preserving organ integrity for potential Donation after Cardiac Death (DCD) (Recommendation 22) should be referred to an ethics committee for further consideration rather than occur under the current review of the Guardianship and Administration Act 2000 and Powers of Attorney Act 1998.

A number of recommendations to be implemented align with the national reforms being progressed through the Commonwealth Government’s $151 million “Worlds Best Practice National Reform Package for Organ and Tissue Donation for Transplantation”. Queensland has actively participated in the development of these national reforms and will continue to be represented on the National Reform Package on Organ Donation for Transplantation Implementation Group.
The Government recognises the work of Queenslanders Donate and the Tissue Banks in working hard to ensure an effective process for organ and tissue donation in Queensland. To improve donation rates, an internal review of organisational structure and reporting mechanisms will be undertaken, in line with national recommendations. Greater numbers of dedicated staff will also help educate a wider circle of health professionals to best practice for organ and tissue donation.

The Government’s specific response to each of the Select Committee’s recommendations is set out below. A Terminology Guide is also included.
Queensland Government Response

Recommendation 1
As the Committee did not identify any convincing evidence that introduction of a system of presumed consent would have a positive effect on organ and tissue donation rates, it should not be introduced in Queensland.

Response to Recommendation 1
The Government supports an “opt-in” system of consent in line with the Committee’s recommendation and review of the evidence. Additionally the Commonwealth Government has not supported presumed consent. A change in consent in one jurisdiction at a time of substantial reform would risk creating community confusion about organ and tissue donation.

Recommendation 2
That the Queensland Government, in partnership with other governments, health services, clinicians and non-government organisations, work to more than double the number of organ donors by 2013, increasing from 39 in 2007 to 60 by 2011 and 80 by 2013.

Response to Recommendation 2
The Government supports this recommendation. In 2008, Queensland increased donor numbers on the previous year. The implementation of a range of strategies and training focused on improved rates will assist the identification of potential donors.

Recommendation 3
That the Minister for Health report to the Legislative Assembly, initially within two years, on progress in increasing the rate of organ donation, identification of potential donors and consent rates, and strategies that have been implemented to increase the donation rate.

Response to Recommendation 3
The Government supports this recommendation. The establishment of a State Medical Director for Organ and Tissue Donation will ensure data collection and reporting occurs regularly and will enable the Minister to update Cabinet and Parliament as required. Targets / key performance indicators will align with the National Authority. These performance indicators will be based on activities funded by the Commonwealth.

Recommendation 4
That the Minister for Health propose to the Australian Health Ministers Council (AHMC) that the consent provisions of all Australian Human Tissue Acts be amended to provide a consistent scheme for consent to organ and tissue donation, with the following features:

- explicit consent to organ and tissue donation
- strengthen the capacity for donation to proceed in accordance with the consent of the deceased potential donor
- obligation to consult with the senior next of kin
- simplify arrangements for the senior next of kin to object to organ and tissue donation and review the definition of senior next of kin to accommodate contemporary domestic and family relationships;

and that the Minister for Health propose to AHMC that Queensland draft legislation to amend the consent provisions of the Human Tissue Acts, for adoption by other jurisdictions.
**Response to Recommendation 4**
The Government supports this recommendation in principle. While the Government recognises and supports the benefits inherent in a consistent approach across all jurisdictions for consent under the Tissues Act, it supports these legal amendments being undertaken by the National Authority. The National Authority was established 1 January 2009 to oversee the development of consistent approaches to tissue donation and therefore assumes the responsibilities for amendments. This is progressing through the National Implementation Group which provides advice to the State Medical Director and Chief Executive Officer. In addition there is a National Protocol for the Development of Nationally Consistent Legislation which is overseen by the Parliamentary Counsel’s Committee. Proposals for nationally consistent legislation or amendments should be appropriately progressed through this body. While the Queensland Government can amend Queensland legislation, Queensland has no authority to influence other jurisdictions to amend their legislation for organ and tissue donation.

**Recommendation 5**
To make donor registration more accessible, that the Minister for Health:
- support the introduction of electronic registration on the Australian Organ Donor Register (AODR) without the need to later sign and submit a written registration form; and
- to facilitate electronic registration, introduce amendments to the Transplantation and Anatomy Act 1979 to replace the reference in section 22(5) to consent “by signed writing” with a provision suitable for electronic registration of consent on the AODR.

**Response to Recommendation 5**
The Government supports this recommendation which aligns with the National Authority public awareness campaign due to begin February 2009. It is proposed that the Bill to amend the *Transplantation and Anatomy Act 1979* will be introduced into Parliament the second half of 2009.

**Recommendation 6**
That the Minister for Health recommend to the Commonwealth Minister that people who register on the AODR be given brochures or cards for family members to promote discussion about the decision to register.

**Response to Recommendation 6**
The Government supports this recommendation and the national campaign focus which will be “talk to your family”. New branded promotional and educational material will be available from the National Authority in 2009-2010. Communication and education for the community regarding registration for the AODR will be actively progressed by our state based agency Queenslanders Donate.

**Recommendation 7**
That the Attorney General and Minister for Justice ensure that the Advance Health Directive form (Form 4, *Powers of Attorney Act 1998* s. 44(2)) is revised to provide separately for consent to organ and tissue donation for transplantation, and consent for other purposes, to
accommodate the needs of people who wish to consent to donation for transplantation but not donation for research.

**Response to Recommendation 7**
The Government supports this recommendation. The Advance Health Directive (AHD) is currently being reviewed at a national and state level. The Attorney-General and Minister for Justice has advised the AHD form will be revised in accordance with this recommendation. A final report is expected 2010.

**Recommendation 8**
To reduce the stress experienced by bereaved families, and subject to any relevant protocols, standards or codes issued by the Australian Organ and Tissue Donation and Transplantation Authority, that the Minister for Health:

- ensure that consent for donation and retrieval of organs and tissue is sought by staff with appropriate skills and expertise, including a high level of interpersonal skills and capacity to engage empathetically, the ability to assess a family’s circumstances and an understanding of grieving processes;
- ensure that donor screening processes, particularly the social/medical history questions asked of the family of a potential tissue donor, are revised so that only relevant and necessary questions are asked, and that questions are linked to screening criteria that are based on evidence.

**Response to Recommendation 8**
The Government supports this recommendation in recognition of the need to reduce the stress experienced by bereaved families. It also recognises that the training of staff in organ and tissue donation directly correlates with donation rates. Queenslanders Donate and the tissue banks already have training programs in place and these programs are in the process of being reviewed and updated in line with the national reforms. Additional medical and nursing positions with appropriate orientation and training will be established in Queensland hospitals by June 2009. The questionnaire for the family/next of kin is also currently being reviewed. The process of Nucleic Acid Testing (NAT) which screens for the potential transmission of diseases such as Human Immunodeficiency Virus (HIV), Hepatitis B and C and Cytomegalovirus (CMV) will help soften the need for confronting social questions which can cause offence.

**Recommendation 9**
That the Minister for Health provide financial support of up to $100,000 for Queensland to commence a trial of real-time nucleic acid test screening for organ and tissue donation to increase the reliability of testing and reduce the range of questions that need to be asked of families in donor screening interviews.

**Response to Recommendation 9**
The Government supports this recommendation in principle and from 1 January 2009, Queensland commenced Nucleic Acid Testing for all potential donors. Pathology Queensland purchased an Automated High Throughput Nucleic Acid Extraction System with capacity for extracting and purifying DNA from a wide range of samples. This machine is not dedicated solely to the organ donation investigation process, which is necessary to reduce testing time. Pathology Queensland has advised that a dedicated machine will cost approximately $250,000, and Queensland Health is currently investigating funding options.
Recommendation 10
That the Premier and Minister for Health host a meeting in early 2009 with clinicians, senior health service managers and others in the organ and tissue donation and transplantation fields on planning and implementation for:
- national reforms in the organ and tissue donation and transplantation sector
- action on the Select Committee’s recommendations.

Response to Recommendation 10
The Government supports this recommendation, and a forum for organ and tissue donation was held on 31 March 2009. In attendance was the newly appointed Chief Executive Officer of the National Authority. This forum was used as an opportunity to explain the role of Queenslanders Donate, the tissue banks and the Donation and Transplantation Clinical Network, and to actively engage Queenslanders in the process of reform and best practice.

Recommendation 11
That the Minister for Health review Queensland’s current organisational arrangements for organ and tissue donation and tissue banking to better integrate functions, remove unnecessary duplication in tissue retrieval, and create a single point of reporting and accountability to support effective implementation of changes in organ and tissue donation.

Response to Recommendation 11
The Government supports this recommendation. The reporting and operational arrangements for organ and tissue donation and tissue banking in Queensland are currently fragmented. Duplication and reduced efficiency are the risks of current arrangements. Current reporting arrangements for organ and tissue services throughout Australia are also inconsistent and uncoordinated and the National Authority has called for a review of all reporting arrangements across the jurisdictions. Queensland will shortly commence this review involving key stakeholders to ensure alignment with the new national structure and new role of State Medical Director for Organ and Tissue Donation. Any reorganisation of these arrangements will ensure appropriate governance and accountability. It is also proposed performance and accountability measures for organ and tissue donation will be included in future Queensland Health District Chief Executive Officer agreements.

Recommendation 12
That the Minister for Health ensure that relevant Queensland hospitals implement clinical trigger checklists and other protocols as soon as possible to ensure that all potential donors are identified.

Response to Recommendation 12
The Government supports this recommendation and the Clinical triggers (see Terminology Guide) will be implemented as soon as they are finalised. Draft clinical triggers are awaiting endorsement by medical and nursing colleges. An annual report to the Minister for Health will include the use of and effectiveness of these clinical triggers in emergency and intensive care units throughout Queensland.
**Recommendation 13**
That the Minister for Health ensure that relevant Queensland hospitals implement protocols as soon as possible to ensure that all potential donors’ families are approached to discuss consent to organ donation.

**Response to Recommendation 13**
The Government supports this recommendation as training medical and nursing staff in protocols significantly correlates with increased donation rates and supports effective communication with potential donors’ families. Appointment of additional Medical Director and Nurse Coordinator roles to include more widespread education to emergency departments, intensive care and operating theatre staff will facilitate appropriate discussion about organ and tissue donation when appropriate. These roles will shortly be advertised and appointed. Some regional Nurse Donor Coordinators will expand their roles to fulfil the new position descriptions provided by the Commonwealth.

**Recommendation 14**
That the Minister for Health ensures that appropriate and ongoing data collection is implemented in hospitals as soon as possible, to report on the identification of potential donors and requests for consent to donation and outcomes, to facilitate evaluation of the effectiveness of measures introduced in each hospital.

**Response to Recommendation 14**
The Government supports this recommendation and implementation will proceed when there is consensus on the data to be reported on and resources received from the National Authority. This is likely to include the auditing of approved national transplantation protocols and standards; and point of care information in emergency departments and intensive care units for reporting and benchmarking of activities related to the new National Authority funding.

**Recommendation 15**
Noting that performance measures for organ donation specialist staff and state based organ donation agencies will be introduced by the Australian Organ and Tissue Donation and Transplantation Authority, that the Minister for Health introduce performance and accountability measures for hospital Clinical Chief Executives on the identification of potential donors, consent requests and the outcomes.

**Response to Recommendation 15**
The Government supports this recommendation and where relevant, performance and accountability measures will become part of the Queensland Health Director-General’s performance agreements with District Chief Executive Officers.

**Recommendation 16**
Given the importance of adequate intensive care beds and staff to care for intending organ donors and the Commonwealth’s announcement of a funding stream to address the additional staff, bed and other infrastructure costs associated with organ and tissue donation, that the Minister for Health negotiate with the Commonwealth for funds to increase intensive care beds and staffing.
Response to Recommendation 16
The Government considers this recommendation to be no longer relevant. The Commonwealth has committed funding for additional staffing, beds, and infrastructure associated with organ and tissue donation. The figure for each jurisdiction is being negotiated and will be finalised in the near future. In addition, on 29 November 2008, Council of Australian Governments agreed to a new Australian Health Care Agreement which will result in increased funds for acute care services. Accurate reporting and auditing of activity should support any future funding bids to the Commonwealth.

Recommendation 17
Given that Queensland Health intends to review appropriate care arrangements for people in intensive care units who need permanent artificial ventilation, but may not need to be located in an intensive care unit, that the Minister for Health ensure that action is taken to establish alternative arrangements to support patients who require permanent artificial ventilation.

Response to Recommendation 17
The Government supports this recommendation and recognises there is a cohort of patients residing in intensive care beds who might enjoy greater quality of life if they are cared for in other health care settings. The Government is actively managing this cohort of patients within the Resource Allocation Model now used for funding within Queensland Health. Queensland Health is also working in partnership with Disability Services Queensland to transition patients where possible to community based accommodation.

Recommendation 18
That the Minister for Health promotes ongoing professional education about organ and tissue donation by:

- ensuring that resources and time away from clinical duties are available for relevant Queensland Health clinicians for professional education
- ensuring that continuing medical education resource materials developed by Queenslanders Donate are promoted and distributed to relevant Queensland Health clinical staff, particularly those in emergency departments and intensive care units
- encouraging the Australian Medical Association (Qld), the Royal Australasian College of General Practitioners and Divisions of General Practice to promote the use of continuing medical education materials about organ and tissue donation by their members.

Response to Recommendation 18
The Government supports this recommendation and once the National Authority positions are established, the Medical Directors and Donor Coordinators/Educators will assume responsibility for ongoing professional education within facilities. Incorporating education around organ and tissue donation into undergraduate training for both medical and nursing staff and including education in hospital/district orientation will help ensure a coordinated multidisciplinary approach throughout the State. Discussions with relevant organisations will take place to progress issues around undergraduate training.
**Recommendation 19**
That, if necessary to facilitate Queensland’s participation in the proposed national matched paired kidney exchange program, the Minister for Health introduce, as soon as possible, relevant amendments to the Transplantation and Anatomy Act 1979.

**Response to Recommendation 19**
The Government supports this recommendation. It is proposed the amendments to the *Transplantation and Anatomy Act 1979* will be introduced in the second half of 2009 to reflect National Authority guidelines for a Paired Kidney Exchange (PKE) program for Queenslanders.

**Recommendation 20**
That the Minister for Health reviews the adequacy of funding provided to non-government organisations which support living donors to enable those organisations to assist living donors with the costs associated with travel and accommodation associated with organ donation surgery.

**Response to Recommendation 20**
The Government supports this recommendation in recognition of the hardship some live donors experience relocating to Brisbane for the duration of treatment and follow up care. This issue has been referred to the Queensland Medical Transport Board for consideration.

**Recommendation 21**
That the Minister for Health support extension of the current Queensland trial of donation after cardiac death to all relevant hospitals and ensure that adequate resources are provided for staff training and briefings to enable timely expansion of the trial.

**Response to Recommendation 21**
The Government supports this recommendation due to the success of the current pilot program of Donations after Cardiac Death (DCD) trials in progress. Five cases have progressed as of December 2008. The pilot program tests the guidelines around DCD. Guidelines remain in draft form until National Authority guidelines are handed down to all jurisdictions in 2009. Kidneys have been successfully transplanted through the DCD program. This program will be extended to include lungs.

**Recommendation 22**
That the Attorney General and Minister for Justice ask the Queensland Law Reform Commission, during its current reference about review of the Guardianship and Administration Act 2000 and the Powers of Attorney Act 1998, to consider whether the “best interests” of a patient who wishes to be an organ donor can include consent to non-harmful medical intervention for the purposes of organ donation, and to propose suitable amendments to facilitate this.

**Response to Recommendation 22**
The Government does not support this recommendation. Donation after Cardiac Death (DCD) is a practice whereby deceased patients may be able to become organ donors following the irreversible cessation of circulation and breathing, as distinct from the other more common scenario of brain death. DCD is already occurring in Queensland.
Non-harmful medical intervention for the purposes of organ donation requires consent. Organ integrity can be preserved further by treatments such as the administration of heparin specifically in liver transplantation. In the context of donation, this is termed ante-mortem medical intervention (see Terminology Guide) and occurs in the period after withdrawal of life sustaining treatment but before the patient’s death. It is currently not legally permissible in Queensland for DCD.

A related question is whether Queensland should allow ante-mortem medical interventions for DCD. Both New South Wales and Victoria have decided that they will not allow the use of ante-mortem medical intervention for DCD. The National Health and Medical Research Council (NHMRC), the national body which provides advice to the Commonwealth, is currently undertaking a review of its guidelines on ethical issues surrounding DCD. A final position is expected by the end of 2009.

The Government considers that the Queensland Law Reform Commission should not consider the issues that are raised in Recommendation 22 under the review of the Guardianship and Administration Act 2000 and Powers of Attorney Act 1998 and that instead, an ethics committee is a more appropriate body to determine whether the ante-mortem medical interventions should be used. The Minister for Health will report back to the Government on the Ethics Committee’s advice by June 2009. A review of clinical and legislative policy in Queensland (associated with reform activities such as PKE and DCD) has commenced, and is anticipated to identify elements of the Transplantation and Anatomy Act 1979 that will require amendment.

**Recommendation 23**

That the Queensland Government advance community education to promote organ and tissue donation and family discussion about donation - consistent with proposed national community education programs - by:

- undertaking and funding intensive and ongoing community education activities
- distributing community education material through public health services, Queensland Transport customer centres, Queensland Legal Aid offices and other Queensland government agencies
- providing funds to non-government organisations, in addition to funds provided by the Commonwealth, to implement approved community education activities focused on family discussion about donation
- providing funds of up to $50,000 to ensure that the school curriculum material under development by Queenslanders Donate and Education Queensland is implemented on a sustainable basis in both non-government and government schools in Queensland
- the Minister for Health writing to the Australian Medical Association (Qld), to ask it to encourage its members to discuss organ and tissue donation with clients and patients, and to promote family discussion about organ and tissue donation
- the Attorney General and Minister for Justice ensuring that information about organ and tissue donation is provided to clients at the offices of the Public Trustee
- the Attorney General and Minister for Justice writing to the Queensland Law Society to ask it to encourage its members to provide information about and discuss organ and tissue donation with clients, particularly those clients who seek advice on wills, powers of attorney and advance health directives.
Response to Recommendation 23
The Government supports this recommendation and recognises community education and awareness are vital to increasing rates of organ and tissue donation in Queensland. The Commonwealth Government is funding a national advertising campaign scheduled to commence March/April 2009. The Queensland Government will be able to source material from this campaign relating to its own audience. As part of the national Communication Strategy, Queensland will produce information where appropriate that is not covered by the national materials. All parties mentioned in this recommendation will receive an invite to the Organ and Tissue Donation Forum in March 2009.

Recommendation 24
That direct incentives for organ and tissue donation should not be implemented in Queensland.

Response to Recommendation 24
The Government supports this recommendation and does not support the introduction of any incentives for cadaveric organ and tissue donation beyond the recognition of the donor and their family as having saved or improved the lives of multiple unknown individuals. The Government considers direct incentives for organ and tissue donation to be ethically unacceptable, as it would influence members of the public who are most at risk of exploitation.
Terminology Guide

**Ante-mortem interventions**: interventions may be carried out before death with the aim of maintaining organ viability following irreversible cessation of circulation. Such interventions include:
- a) administration of drugs that enhance organ quality (e.g., heparin);
- b) moving the patient to the operating room before discontinuation of treatment so that organs and tissues may be obtained immediately after death; and
- c) cannulation of femoral vessels, to facilitate infusion of preservation solutions once death has occurred.1

**Brain death**: The irreversible loss of all function of the brain. Brain death is determined when a person receiving artificial ventilation is diagnosed independently by two experienced doctors as having permanently lost all brain function. When loss of all brain function occurs, control of the functions of the body ceases and the functions of the body are no longer integrated. The individual organs of the body may live temporarily, if mechanical support is provided and circulation continues.2 In Queensland, brain death must be certified by two independent doctors, neither of whom is associated with possible organ or tissue donation from the patient, and one of whom is a specialist in neurology, neurosurgery, anaesthesics, cardiology, emergency medicine, general surgery, intensive care, internal medicine, paediatrics, paediatric surgery or thoracic medicine.3

**Cardiac death**: Death when the heart stops (cardiac arrest) and there is irreversible cessation of circulation. Criteria for diagnosing cardiac death clearly differentiate it from irreversible cardiac disease in which circulation is failing or is maintained artificially, or where cessation of circulation is predicted but has not yet occurred.4

**Cerebrovascular accident (CVA)**: Also known as a stroke - the rupture of an artery of the brain causing bleeding into the brain; or the obstruction of an artery into the brain.

**Clinical triggers**:
Clinical Triggers for Emergency Department settings
A simple clinical trigger for identification of potential organ donors in the emergency department environment is required and should include three elements:
- clinical criteria present including a low and descending Glasgow Coma Scale (GCS), the patient is intubated and has severe irreversible brain injury due to traumatic brain injury, Cerebral vascular Accident (CVA) cerebral hypoxia or similar causes;
- extubation being considered; and
- patient younger than 80 years although pragmatic review of the cut-off age may be required.

The presence of these conditions would then prompt a call to the intensive care unit prior to extubation with agreed local protocols for review of end-of-life care being implemented. The intensive care unit team will then assume clinical ownership and directing care for patients who are potential organ donors.

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1 National Health and Medical Research Council (2007)
2 National Health and Medical Research Council (2007)
3 *Transplantation and Anatomy Act 1979 (QLD)*s. 45 and *Transplantation and Anatomy Regulation 2004*, s13
4 National Health and Medical Research Council. (2007)
Clinical Triggers in the Intensive Care Unit

A systemised approach to identification of clinically ill patients with potential to become an organ donor is also required in the intensive care unit. This should include both brain dead and deceased cardiac donors. Clinical triggers in intensive care settings would include:

- severe irreversible brain injury; and/or
- patient has several absent brain stem reflexes; and
- advance in disease trajectory to the point where the withdrawal of life-sustaining therapy is appropriate.

The presence of two or more of these indicators would trigger referral to an intensive care unit consultant and management of the patient in accordance with local organ donation protocols.5

Donor: A donor is a person (usually deceased; however there are live donors of a kidney or part of the liver) where organ or tissue retrieval for transplantation is commenced.

Donation after cardiac death (DCD): Donation after cardiac death (see definition above) was previously known as non heart beating donation; it is possible only if death occurs in hospital and organ retrieval occurs a short time after death.

Donation rate: The two commonly used donation rates are: the number of people from whom one or more organs are retrieved for transplantation (eg. 198 in Australia in 2007); and the donor rate per million of population (dpmp), (9 dpmp in Australia in 2007). The dpmp is often used for international comparisons.

Donor registration: The number of people who have registered their willingness to become an organ and tissue donor when they die. Human Tissue Acts: The legislation regulating organ and tissue donation in each state and territory, variously called the Transplantation and Anatomy Act or the Human Tissue Act. The Acts are listed in the References at the end of this Report.

Nucleic Acid Testing (NAT): Is often called a “NAT test” and is a biochemical technique used to detect a virus or bacterium. These tests are developed to shorten the window period, a time when a patient has been infected and when they show up as a positive antibody test. The term includes any test that directly detects the genetic material of the infecting organism or virus. NAT screens blood for potential transmission of diseases such as HIV, Hepatitis B, Hepatitis C and Cytomegalovirus (CMV) in potential organ donors.

Paired kidney exchange (PKE): Kidney donation where two separate live donors who are both unable to donate to their intended recipients due to blood group incompatibility, are matched with the other’s recipient.

Potential organ donor: A potential donor is a patient with confirmed brain death, or whose death is anticipated, and who is medically suitable for organ donation.

Presumed consent system: In a presumed consent system it would be assumed that a person wishes to donate organs and tissue for transplantation unless the person has registered their refusal to donate.

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**Tissue donor**: A donor of tissue, such as bone, corneas and/or heart valve tissue, but not of organs.

**Whole organ donor**: A donor of one or more organs such as a kidney, lung or liver (partial liver donation is also possible); differentiated from a tissue donor.