How we can increase Australia’s organ donation rate

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The Australian government has commissioned a private consultancy to review the country’s poor organ donation rates. While the review may make some interesting observations, the answer to increasing the rate is already clear: we need to better manage patients nearing brain death.

In 2008, the Rudd Labor government allocated A$136 million to create a nationwide government body called the Organ and Tissue Authority (OTA), and charged it with increasing Australia’s low deceased organ and tissue donation rates.

The initiative failed. After initially increasing rates to our highest-ever of 16.9 deceased organ donors per million population (pmp) in 2013, the rate fell again to 16.1 in 2014. And our year-to-date projections point to a further decrease in this rate for 2015.

Even though there has been a small relative increase in the number of people who have received transplants – 56.3 transplants pmp in 2008 to 58.9 transplants in 2014 – this 4.6% increase has cost more than A$250 million. And Australia’s donation rate remains in the bottom half of developed countries, with a rate less than half that of world-leading Spain.

The OTA’s failure to achieve higher donation levels or to maintain its early improvements raises questions about its strategic approach. We believe there are three key areas where its approach differs from world’s best practice.

1. A focus on donation after cardio-circulatory death has decreased the number of organs available for transplant
The kinds of deaths that can lead to organ donation are very rare; they typically comprise around two in 100 deaths. There are two main kinds of “eligible” deaths. The first, and most common, is donation after brain death. People who are brain dead can normally donate many organs because even though their brain is dead, their heart continues to beat and their organs remain viable for transplant.

The second is donation after cardio-circulatory death, which is donation after the donor’s heart stops beating under controlled conditions in hospital. Because circulation has ceased, the number of organs able to be retrieved is normally fewer than that following brain death; they donate, on average, 1.5 times fewer organs than brain dead donors.

Under the OTA, Australia’s level of donation after brain death has increased by 4.5% (from 11.04 pmp donors in 2008 to 11.54 pmp in 2014), while donation after cardio-circulatory death has increased by 422% (from 1.08 pmp in 2008 to 4.56 pmp in 2014). This picture is completely different to countries with world-leading donation rates, all of which have greatly improved their donation after brain death rates relative to their donation after cardio-circulatory death rates.

The OTA’s focus on donation after cardio-circulatory death may well have come at the expense of donation after brain death. And this has potentially reduced the number of organs available for transplantation. While technological advances, including “re-animation”, will likely reduce barriers to organ retrieval from non-heart-beating donors, changing the focus from donation after cardio-circulatory death to donation after brain death still represents the most effective way for improving organ donation rates in this country.

2. Publicity campaigns to increase public support for organ donation have wasted resources and are unlikely to achieve significant long-term benefit

It may sound counter-intuitive but high organ donation rates don’t correspond with public support for organ donation. In fact, many countries with the world’s highest organ donation rates have among the lowest public support for donation, which suggests public education campaigns are unlikely to significantly improve organ donation rates.

But each year the OTA spends significant resources trying to increase community awareness through advertising, public relations and merchandise. These efforts include “Have you had the chat that saves lives,” the DonateLife Corporate Partnership Program and other public outreach campaigns.

While such campaigns may have high public, media and political profile, there is little evidence they directly influence organ donation rates.

It’s noteworthy that many world-leading donor countries, including Spain (which has approximately twice Australia’s population), provide considerably less financial support for their equivalent national organ authorities. In 2015 the Spanish ONT – Spain’s equivalent of the OTA – received the equivalent of A$5.66 million for its total funding, whereas the OTA has a budget of approximately A$40 million. Spain’s donation authority has little to no budget for advertising, public relations or marketing and relies primarily on systematic organisation of the health-care system to support organ donation.
3. Focusing on consent to donation doesn’t yield the same benefit as early identification of potential donation after brain death donors

Australia’s 2014 consent rate (the percentage of families who give their consent to donate their loved one’s organs) of 61% is almost identical to that of France and similar to many other countries with world-leading deceased organ donation rates. Clearly, while consent plays an important role in the success of any organ donation program, it’s not the main determinant of whether a country achieves high organ donation rates.

Politicians, policymakers and transplant advocates have also raised the prospect of making it impossible for families to veto a potential donor’s expressed wish to donate their organs. But this may be counterproductive. It may increase family distrust and alienation regarding donation. And it’s unnecessary as virtually all countries with world-leading organ donation rates allow families to veto organ donation.

In fact, there’s only one factor that determines whether or not a country will have a high deceased organ donation rate and that’s how often it treats critically ill patients until they reach brain death. International data suggests it’s impossible to raise organ donation rates to more than 20 donors per population without implementing effective programs that focus on effectively identifying critically ill patients who may be approaching brain death.

Increasing donation after brain death

Australia has struggled to increase its deceased organ donation rates for more than 25 years. To achieve better rates, the OTA must shift its focus away from public awareness campaigns and instead focus on improving effectiveness in early identification of critically ill patients who are likely to become brain dead.

The conditions that lead to brain death are just as prevalent in Australia as they are in other leading donor countries. Indeed more Australians die from traumatic brain injury – the primary cause of death for donation after brain death donors in Australia – than in many other world-leading donor countries. This indicates the potential for Australia to achieve world-leading organ donation rates is real. The clinical identification of brain death must, of course, go hand in hand with appropriate, timely and sensitive discussions with a patient’s loved ones.

It is up to the OTA to lead on this potential and help the Australian medical community identify cases of brain death more effectively, and increase the number of organs being donated.