

Time, blood and money

By Rosie McCrossin, NSW WEN member and Second Place in the Credible Economist writing competition.

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You are rushed to hospital with severe burns, or a brain disorder, or tetanus, or measles, liver disease or haemophilia. But you survive because you received treatment made from a special kind of blood product: plasma. As you recover, you begin to wonder, where did that plasma come from? You may assume its journey began in Australia, from the arm of a volunteer. However, it is equally likely that before it entered your body, it had travelled tens of thousands of kilometres, from a foreign donor who was paid for it.

In Australia, you cannot be paid to donate your blood. However, voluntary donations only generate enough supply to meet around half of demand for some plasma products (noting that some cannot be processed in Australia)¹. So where does the rest come from? The United States - where there is a price on plasma, around \$20 to \$50USD per session². The degree to which Australia's reliance on America for plasma represents a crisis depends on who you ask, but it would have any national security expert worried. Even in the last year, the COVID pandemic has created plasma shortages in

¹ National Blood Authority. (2021). 2020-21 Annual Report.

<https://www.blood.gov.au/sites/default/files/20211103_Annual%20Report%202020-21-digital.pdf>

² Sydney Morning Herald. (2021). CSL forced to offer more cash to US plasma donors.

<<https://www.smh.com.au/business/companies/csl-forced-to-offer-more-cash-to-us-plasma-donors-20210505->

[p57p0c.html#:~:text=Biotechnology%20giant%20CSL%20has%20been, stopping%20donors%20from%20turning%20up.>](https://www.smh.com.au/business/companies/csl-forced-to-offer-more-cash-to-us-plasma-donors-20210505-p57p0c.html#:~:text=Biotechnology%20giant%20CSL%20has%20been, stopping%20donors%20from%20turning%20up.>)

both America, with collections below 2019 levels³, and in Australia⁴. Exacerbating this, demand continues to increase, and new uses continue to be discovered⁵.

The most common solution proposed to this problem is to pay donors. However, the key problem with cash payments is they attract the most vulnerable in society, who can be exploited, or may have incentives to lie about their health in order to donate. This can be detrimental to both their health and the quality of the blood supply⁶. Ethics aside however, would cash for donors solve all our supply problems? Behavioural economics tells us that people don't always respond to financial incentives rationally. Intrinsic motivation to do a good thing for society can be very strong, and if people are given a small payment, the nature of the motivation changes, perhaps to something much weaker⁷. Many papers indicate that small payments turn off some people, especially women, from donating blood^{8,9,10}. While the effect of cash payments could be a net increase to supply, deterring anyone, particularly existing donors, is extremely undesirable.

So, we need to get more people into donation centres, but maintain their feeling of doing good, while avoiding donation when it endangers themselves or others. One lesson from behavioural economics is that small friction costs and inconveniences can have huge impacts on people's decisions¹¹. Further, Australian research indicates the most common barrier to donation is a lack of time¹². So, what is the solution? Give people the time they need to do it, and let it be time they don't mind using up – time at work.

A national system of paid plasma donor leave could be a key method of increasing supply, and there is evidence that this approach works. When paid donor leave was offered in Italy, research tracking a group of donors found annual donations rose by 40%, and they maintained higher frequencies even without the leave. The paper also finds that in the decade following the introduction of the leave,

³ Sydney Morning Herald. (2021). CSL offers \$40,000 to help solve its plasma problem. <<https://www.smh.com.au/business/companies/csl-offers-40-000-to-help-solve-its-plasma-problem-20210414-p57j1q.html>>

⁴ Sydney Morning Herald. (2021). Critically low blood banks spark urgent call for 22,000 donors. <<https://www.smh.com.au/national/critically-low-blood-banks-spark-urgent-call-for-22-000-donors-20210302-p5770q.html>>

⁵ Hartmann, J., & Klein, H. G. (2020). Supply and demand for plasma-derived medicinal products - A critical reassessment amid the COVID-19 pandemic. *Transfusion*, 60(11), 2748–2752. <https://doi.org/10.1111/trf.16078>

⁶ WHO. (2010). Towards 100% voluntary blood donation: a global framework for action. <<https://www.who.int/publications/i/item/9789241599696>>

⁷ Gneezy, U., & Rustichini, A. (2000). Pay Enough or Don't Pay at All. *The Quarterly Journal of Economics*, 115(3), 791–810. <<http://www.jstor.org/stable/2586896>>

⁸ Glynn, S. A., Williams, A. E., Nass, C. C., Bethel, J., Kessler, D., Scott, E. P., Fridey, J., Kleinman, S. H., Schreiber, G. B., & Retrovirus Epidemiology Donor Study (2003). Attitudes toward blood donation incentives in the United States: implications for donor recruitment. *Transfusion*, 43(1), 7–16. <https://doi.org/10.1046/j.1537-2995.2003.00252.x>

⁹ Mellström, C., & Johannesson, M. (2008). Crowding Out in Blood Donation: Was Titmuss Right? *Journal of the European Economic Association*, 6, 845–863.

¹⁰ Howden-Chapman, P., Carter, J., & Woods, N. (1996). Blood money: blood donors' attitudes to changes in the New Zealand blood transfusion service. *BMJ (Clinical research ed.)*, 312(7039), 1131–1132. <https://doi.org/10.1136/bmj.312.7039.1131>

¹¹ Department of Prime Minister and Cabinet. (2019). Richer veins for behavioural insights: An exploration of the opportunities to apply behavioural insights in public policy. <<https://behaviouraleconomics.pmc.gov.au/sites/default/files/resources/richer-veins.pdf>>

¹² Thorpe, R., Masser, B. M., Nguyen, L., & Davison, T. E. (2020). Understanding donation frequency: insights from current plasma donors. *Vox sanguinis*, 115(2), 174–181. <https://doi.org/10.1111/vox.12861>

the number of registered donors in the total Italian population more than tripled from 0.25% to 0.8% of the population¹³. This solution would still put Australia in line with WHO guidelines on compensating donors, so long as the leave was not above and beyond the time it takes to make the donation. While it would only capture those in the workforce, the working age population (15-64), captures most eligible plasma donors (18-75).

Some employees, including myself, already have access to this leave. My employer offers two hours of paid leave per quarter for blood donation. In my experience, not only did this allow me the time to donate, but also triggered the idea of donating for the first time. The leave could be adapted to focus specifically on plasma. Initially, there may be challenges in convincing employers to offer it. However, corporate social responsibility metrics are increasingly important, and a couple of hours of leave is likely a worthwhile trade-off. To encourage participation, the government could provide official commendations for companies to use in legitimising their social impact metrics.

The core of this issue is that people possess the motivation to do something good for society by donating plasma, but seemingly small barriers hugely decrease their likelihood of acting on this motivation. Offering cash incentives does little to remove these barriers, instead merely replacing them with more complex issues. Economics, and behavioural economics, aren't built to deal with ethics but with incentives. In the context of plasma donation, what they tell us is that even a small incentive, if it's the right incentive, can be enough to save lives.

¹³ Lacetera N, Macis M. (2013). Time for blood: The effect of paid leave legislation on altruistic behavior. *Journal of Law, Economics & Organization*, 29: 1384-420