



February 2020 | A periodic e-bulletin to share results of organ donation and transplantation projects funded by the Division of Transplantation.

Is there a Registration Equation?

Studies show four factors that, when presented simultaneously, increase donor registration rates.

The results of a series of studies funded by the Health Resources and Services Administration's Division of Transplantation point the way to an effective formula for boosting donor registration rates.

In 2010, a research team led by psychologist Jason Siegel and researcher Eusebio Alvaro of Claremont Graduate University developed and tested the IIFF model that determined people are most likely to register when four factors (see chart below) are simultaneously present.



In another round of studies between 2015 and 2018, Siegel and colleagues reexamined the IIFF model to see if changing the type of emotion provoked in an individual would change

the rates of registration. For example, would a feeling of gratitude make people more likely to register than a feeling of guilt?

Siegel and colleagues presented Hispanics, at two Mexican consulates (in Tucson, Arizona, and Albuquerque, New Mexico) and a Phoenix health clinic, with all four IIFF factors: an immediate opportunity to register, information about registration eligibility, focused engagement, and favorable activation. However, for favorable activation, some participants were shown Spanish-language videos that tried to provoke elevation (i.e., feeling uplifted or inspired) while others were shown videos that tried to provoke gratitude, guilt, serenity, or no emotion at all.

The researchers found that there was a high rate of registration across all participants—between 24% and 36%—regardless of the emotion that was induced by the videos. Siegel said it's likely that having all four IIFF factors present pushed registration likelihood so high that differences in the type of favorable activation were not enough to significantly influence donor decisions.

Strategies that work:

- Presenting all four factors of the IIFF model simultaneously
- Offering registration via iPad



“Even though 24% to 36% of participants had years to register as organ donors, they didn’t do so until all four components of the IIFF model were simultaneously present – which is not often encountered in everyday life,” Siegel said. “So it seems there are four things that, combined together, will increase donation rates: Give people a way to register right then and there, provide them with relevant information, put them in the right mindset, and get them focused on donation. If you do all those things, you’ll get good results.”

Another unexpected finding was that people were significantly less likely to register as organ donors using pen and paper than they were using an iPad.

“That surprised us, because we thought some people would be afraid to use an iPad due to unfamiliarity,” Siegel says. “One possibility is that people were more nervous about putting personal information on paper, where someone else might see it, than they were about entering it on an iPad.”

Siegel notes that others have also gotten positive results using the IIFF model – e.g., researchers in Australia found that providing an immediate opportunity to register boosted

registration rates to 60%, compared to less than 12% when the opportunity to register was not immediately available.

Want to implement the IFF model in your region? You can access inspiring videos about organ donation in English and Spanish on the Division of Transplantation's [website](#). You can also learn more about Siegel's project by contacting him at Jason.siegel@cgu.edu and by using the resources below. To learn more about organ, eye and tissue donation, please visit organdonor.gov.

Want to know more?

¹Maximizing Donor Registrations among Hispanics: A Positive Psychology Approach

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Blazek, D., & Siegel, J. T. (2018). Positive Emotions and Organ Donor Registration: The Differential Effects of Discrete Positive Emotions. *Applied Psychology: Health and Well Being*. Advanced online publication. doi:10.1111/aphw.12134

Navarro, M. A., Siegel, J. T., Thomson, A. Alvaro, E. M., Nakamura, J. & Csikszentmihalyi, M. (2018). A mixed mode exploration of discrete positive emotions among Spanish-Language Dominant Hispanics: Elevation, gratitude, and some serenity. Manuscript submitted for publication.

Siegel, J. T., Alvaro, E. A., & Hohman, Z. (2010b). A dawning recognition of factors for increasing donor registration: The IFF Model. In Siegel J. and Alvaro E. (Eds.), *Understanding Organ Donation: Applied Behavioral Science Approaches* (pp. 313-330). Malden: MA, Blackwell-Wiley.

Siegel, J. T., Alvaro, E. A., Crano, W. D., Gonzalez, A., Tang, J., & Jones, S. P. (2010). Passive-positive organ donor registration behavior: A mixed method assessment of the IFF Model. *Psychology, Health and Medicine*, 15, 198-209.

Alvaro, E.A., Siegel, J. T., & Jones, S. P. (2011). Increasing organ donor registration rates by providing an Immediate and Complete Registration Opportunity: An experimental assessment of the IFF Model. *Psychology, Health and Medicine*, 16, 686-694.

Siegel, J. T., Tan, C. N., Rosenberg, B. D., Navarro, M. A., Thomson, A., Lyrintzis, E. A., Alvaro, E. A., & Jones, N. D. (2016). Anger, frustration, boredom and the Department of Motor Vehicles: Can negative emotions impede organ donor registration? *Social Science and Medicine*, 153, 174-181.

Siegel, J. T., Alvaro, E. A., Tan, C. N., Navarro, M. A., Garner, L. & Jones, S. P. (2016). Increasing organ donor registrations: The IFF Model and (f)utility of a lone ICRO. *Progress in Transplantation*, 26, 103-108.

Sharpe, E., Moloney, G., Sutherland, M., & Judd, A. (2017). The Power of an Immediate Donor Registration Opportunity: Translating Organ Donation Attitudes Into Registration Behavior, *Basic and Applied Social Psychology*, 39, 49-59

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