Social and structural disparity in possible organ donor discards in Chile

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TTS 2024 - September 22-25

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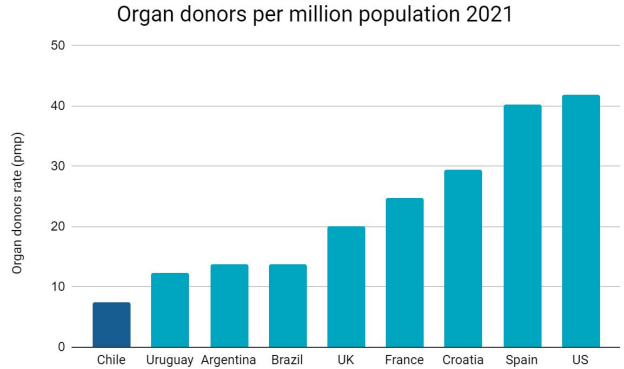
Introduction

Financial disclosure: This research was not financed by any organization or agency. We have no conflicts of interest to declare.



Chile has a very low organ donation rate

50% Familial refusal

80% possible donors are discarded*

87% possible donors not detected or referred

Why so many discards?

What factors influence possible donors to be discarded?

Are there differences between Local Procurement Coordinations (LPC), hospitals, or socioeconomic level?

* A possible donor (PD) is discarded when it is considered as not suitable for organ donation throughout the procurement process. Could be because of comorbidities, lack of resources, inaccurate maintenance, or many other factors.

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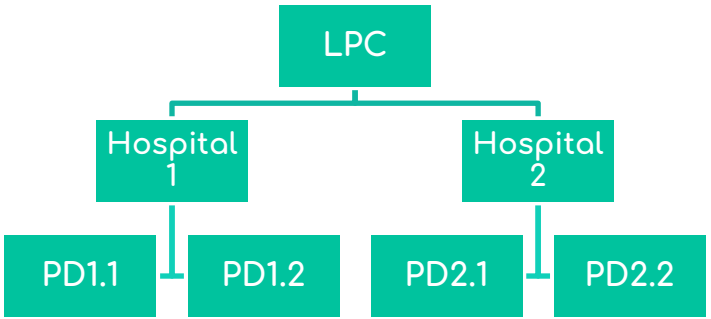
Methods

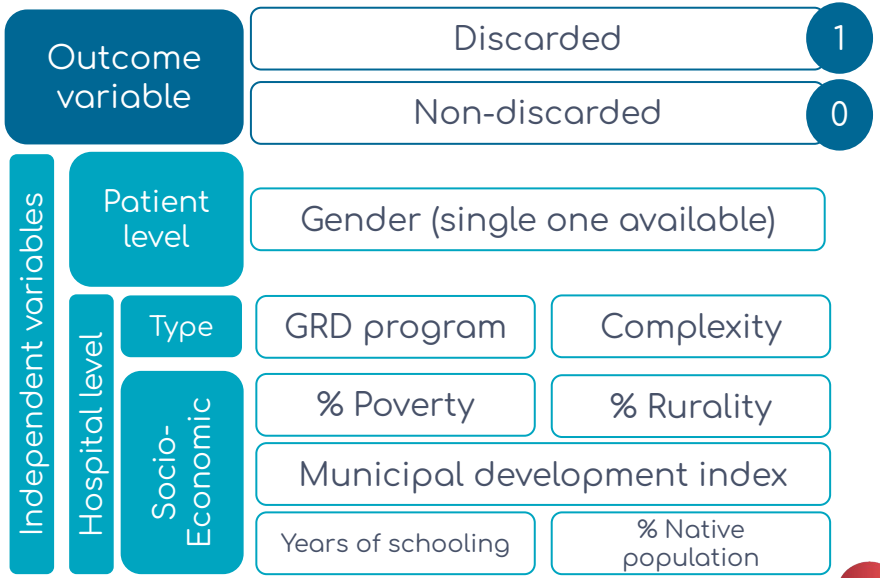
Multi-level model



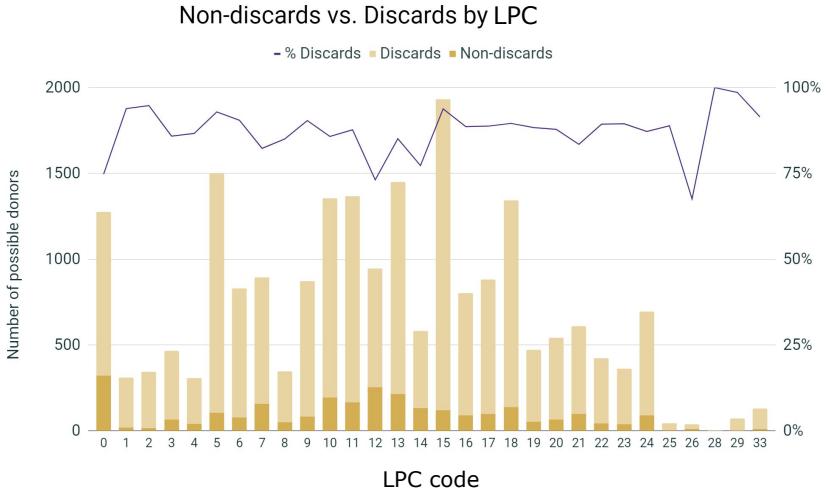
National Organ Procurement and Transplant Coordination Database

Possible organ donors entering procurement follow-up between 2013 - 2022

Multivariate logistic regression for clustered data



Results



Model level	Variable	Fixed Effects	Random Effects
LCP	-	-	Variance = 0,12 0 ∉ (0,075 ; 0,615)*
Hospital	% Poverty	OR = 28.160 (p<0,00015)*	Variance = 0,13 0 ∉ (0,29 ; 0,67)*
	% Rurality	OR = 14,65 (p=0,00728)*	
Patient	Gender (male=1)	OR = 1,21 (p<0,000023)*	-
Intercept	-	OR = 5,8 (p<0,00001)*	-

* = significant at 95% confidence. We did not include not significant independent variables

Results

All significant values, we did not include not significant ones.

Then we grouped discard causes in 4 groups and run an independent model for each group of causes

	OR Fixed effects					Variance Random effects	
	Intercept	**Gender**	**% Poverty**	**% Rurality**	**Years of schooling**	**Hospitals**	**LPC**
Social Cause	0,0057	1,45	1.448.342	231,8	-	0,78	-
Patient Cause	-	1,38	2.575	-	-	0,13	0,23
Process Cause	31,94	1,31	-	-	**0,64**	0,23	0,48
Other Cause	-	-	663.187	9,85	-	0,29	-

Conclusions

Large inequality among LPCs is greatly explained by significant variance between hospitals and LPCs

➡ Proving a lack of standardization of the procurement process.

Chilean organ donation system is unexpectedly impacted by social inequities, specially POVERTY

➡ We can't target and solve that problem from our field

What we can do is improve and standardize the procurement process at the hospital and LPC levels, thus increasing organ donation efficiently

Good option: By using technological tools for managing, monitoring, and evaluation