



OVO

CLINIQUE

# CUMULATIVE PREGNANCY RATES ARE THE ANSWER IN PUBLIC IVF PROGRAMS: THE OVO CLINIC EXPERIENCE

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## INTRODUCTION

Public financing of assisted reproductive technologies (ART) aims at increasing access to fertility treatments while decreasing government's health expenses associated with multiple pregnancies. Critics of public financing of ART emphasize that public programs are also associated with lower pregnancy rates. The present study aims to evaluate the clinical impact of the Quebec public IVF program.

## MATERIALS & METHODS

IVF cycles performed at **clinique ovo** during 2009 (Period I), were compared to IVF cycles performed during the first year following implementation of the program (Period II, August 5th 2010 - August 4th 2011). Only first fresh IVF cycles performed during Period I and fresh IVF cycles along with their corresponding first frozen cycle during period II, were analyzed.

## RESULTS

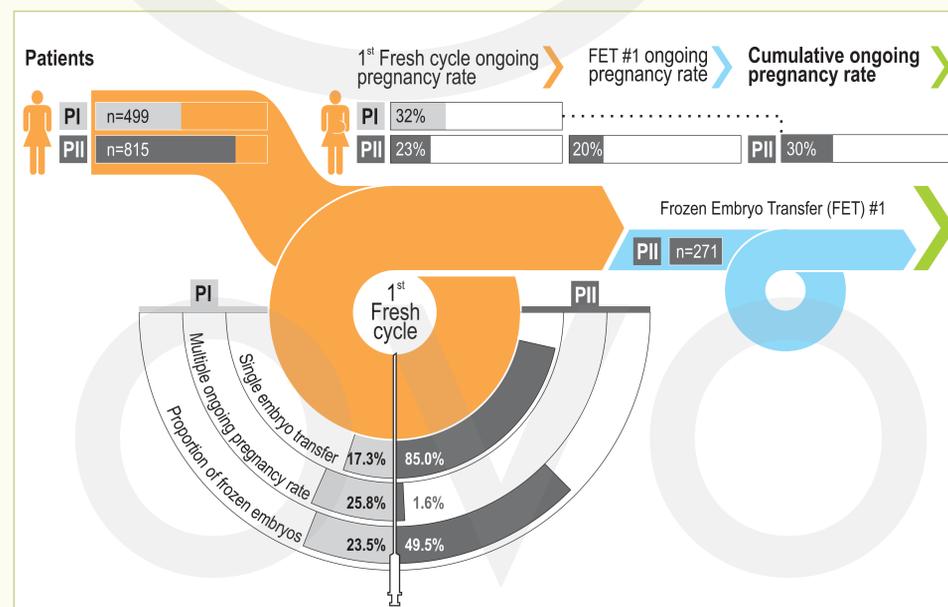
Four hundred and ninety nine patients had a first fresh IVF cycle performed at **clinique ovo** during 2009, while 815 women had a first fresh IVF cycle performed during Period II, representing an increase of 63% cycles. Single embryo transfer (SET) was performed in 17.3% of the cycles during Period I, significantly increasing to 85.0% during the Period II ( $p < 0.001$ ). The ongoing pregnancy rate was lower in period II compared to the first period (33.0% vs. 23.3%,  $p = 0.001$ ), as was the multiple ongoing pregnancy rate (25.8% vs. 1.6%,  $p < 0.001$ ). The proportion of frozen embryos per cycle started increased from 23.5% in Period I to 49.5% in Period II ( $p < 0.001$ ). Two hundred and seventy one women who did not get pregnant after the first fresh IVF attempt and who had frozen embryos available, underwent a frozen-thawed embryo transfer during Period II. The ongoing pregnancy rate in this population was 20%. Therefore, the cumulative ongoing pregnancy rate per initiated cycle was 30% during period II, which compared to a pregnancy rate per fresh cycle of 32% during period I, do not represent a statistically significant difference ( $p = 0.41$ ).

**Table 1. Outcomes of stimulated IVF cycles performed at clinique ovo preceding and following the Quebec's Public IVF legislation**

	Period I	Period II		P value	
	1st fresh cycle	1st fresh cycle	1st TEC		Cumulative
n	499	915	271		
Age, Mean (SD)	35.2 (4.4)	35.4 (4.4)		0.64 *	
Categories of age, n (%)					
<35 years	45.7	41.7		0.37 **	
35-39 years	34.5	37.2			
≥40 years	19.8	21.1			
Retrievals (%)	89.4	93.7		0.004 **	
Mature eggs, Mean (SD)	10.9 (6.2)	11.0 (6.5)		0.85 *	
Transfers (%)	84.8	81.7		0.15 **	
Embryos transferred, Mean (SD)	2.11 (0.81)	1.18 (0.44)	1.37 (0.55)	1.23 (0.48)	<0.001 <sup>a*</sup>

<sup>a</sup> Period I compared to cumulative data on Period II ; \* test ; \*\* Chi-square test

**Figure 1. Cumulative**



**Table 2. Clinical pregnancy rates according to the number of embryos transferred**

Variable	Period I*	Period II**	P value
Transfers (n)	423	666	
Ongoing Clinical Pregnancy (n)	159	190	
SET pregnancies	11/73 (15.1)	172/566 (30.4)	0.01
DET pregnancies	122/260 (46.9)	13/83 (15.7)	<0.001
>DET pregnancies	26/90 (28.9)	5/17 (29.4)	0.97

Values are n (%), unless otherwise stated ; SET: Single Embryo Transfer ; DET: Double Embryo Transfer ; >DET: more than two embryos transferred

**Table 3. Proportion of patients having cryopreserved embryos**

Age	Period I*	Period II**	P value <sup>†</sup>
<35 years	37.0%	70.3%	<0.001
35-39 years	22.4%	62.5%	<0.001
≥40 years	9.5%	32.8%	<0.001
Linear trend	<0.001	<0.001	

<sup>†</sup> Chi squared test

## CONCLUSION

At **clinique ovo**, the implementation of the Quebec Public IVF program attained the objective of increasing access to IVF treatment and decreasing multiple pregnancy rates while maintaining acceptable cumulative pregnancy rates, a more accurate outcome to evaluate the impact of public IVF programs.