

Supplementary Tables

Supplementary Table 1. Socio-demographic characteristics of the study participants by payment type.

Variable	Publicly funded, n=112	Self-paid, n=237	p-value	Unknown, n=97
Age (years), mean±SD	34.2±4.8	34.2±5.9	0.99	32.1±5.7
BMI, n(%)			0.62	
Underweight	12 (10.8%)	32 (13.9%)		0 (0%)
Normal	69 (62.2%)	132 (57.1%)		44 (74.6%)
Overweight/Obese	30 (27.0%)	67 (29.0%)		15 (25.4%)
Education level, n(%)			<0.01	
ISCED 4	39 (34.8%)	47 (20.0%)		34 (35.1%)
ISCED 5	27 (24.1%)	90 (38.3%)		7 (7.2%)
ISCED 6	46 (41.1%)	98 (41.7%)		57.7%)
Location, n(%)			<0.001	
Aktobe	41 (36.6%)	26 (11.0%)		0 (0%)
Almaty	3 (2.7%)	96 (40.5%)		0 (0%)
Nur-Sultan	68 (60.7%)	115 (48.5%)		0 (0%)
Shymkent	0 (0%)	0 (0%)		97 (100%)

Supplementary Table 2. Past and current medical history of infertility of the study participants by payment type.

Variable	Publicly funded, n=112	Self-paid, n=237	p-value	Unknown, n=97
Comorbidity, n(%)				
Yes	49 (43.7%)	125 (52.7%)	0.12	0 (0%)
No	63 (56.3%)	112 (47.3%)		97 (100%)
Infertility duration (years)				
Mean±SD	6.6±3.6	5.1±3.9	<0.01	7.0±3.9
Median (IQR)	6 (4-8)	4 (3-7)		6 (4-9.5)
Number of previous deliveries, n(%)				
None	87 (77.7%)	150 (63.5%)	<0.01	61 (63.5%)
One	24 (21.4%)	62 (26.3%)		26 (27.1%)
Two or more	1 (0.9%)	24 (10.2%)		9 (9.4%)
Number of previous miscarriages, n(%)				
None	100 (89.3%)	205 (86.9%)	0.52	79 (82.3%)
One or more	12 (10.7%)	31 (13.1%)		17 (17.7%)
Number of previous intentional pregnancy interruptions, n(%)				
None	101 (90.2%)	209 (88.6%)	0.65	94 (97.9%)
One or more	11 (9.8%)	27 (11.4%)		2 (2.1%)
Number of previous IVF cycles, n(%)				
None	84 (75.7%)	184 (78.6%)	0.03	67 (69.1%)
One	20 (18.0%)	22 (9.4%)		25 (25.8%)
2 or more	7 (6.3%)	28 (12.0%)		5 (5.1%)
Cause of infertility, n(%)				
Female	35 (31.2%)	106 (45.3%)	<0.01	77 (80.2%)
Male	6 (5.4%)	22 (9.4%)		13 (13.5%)
Mixed	71 (63.4%)	106 (45.3%)		6 (6.3%)

Supplementary Table 3. IVF treatment characteristics of the study participants by payment type.

Variable	Publicly funded, n=112	Self-paid, n=237	p-value	Unknown, n=97
Number of oocytes retrieved				
Mean±SD	10.2±8.0	10.3±8.1	0.87	11.2±8.8
Median (IQR)	9 (4-14)	9 (4-14)		9 (4-14)
Number of embryos transferred				
Mean±SD	1.6±1.0	1.5±0.8	0.93	4.5±4.8
Median (IQR)	2 (1-2)	2 (1-2)		2 (1-6)
Used protocol, n(%)				
Classic-long	7 (6.6%)	28 (12.0%)	0.09	1 (1.0%)
Classic-short	94 (89.5%)	189 (80.8%)		96 (99.0%)
Non-classic – natural cycle	2 (1.9%)	5 (2.1%)		0 (0%)
Non-classic – ultrashort	1 (1.0%)	12 (5.1%)		0 (0%)
Non-classic – stimulated in luteal phase	1 (1.0%)	0 (0%)		0 (0%)
Clinical pregnancy, n (%)				
Yes	51 (53.1%)	146 (65.2%)	0.04	19 (70.4%)
No	45 (46.9%)	78 (34.8%)		8 (29.6%)
Miscarriage, n(%)				
Yes	0 (0%)	1 (0.4%)	1.00	0 (0%)
No	102 (100%)	225 (99.6%)		24 (100%)
Multiple pregnancies, n(%)				
Yes	1 (1.0%)	3 (1.3%)	1.00	0 (0%)
No	103 (99.0%)	226 (98.7%)		89 (100%)

Supplementary Table 4. Socio-demographic characteristics of the study participants by IVF clinical pregnancy status.

Variable	Pregnant, n=216	Not pregnant, n=131	p-value	Unknown, n=99
Age (years), mean±SD	33.7±5.9	34.5±5.2	0.21	33.0
BMI, n(%)				
Underweight	38 (18.2%)	4 (3.2%)	<0.001	2 (3.0%)
Normal	130 (62.2%)	74 (58.7%)		41 (62.1%)
Overweight/Obese	41 (19.6%)	48 (38.1%)		23 (34.9%)
Education level, n(%)				
ISCED 4	49 (38.0%)	40 (18.5%)	<0.001	31 (31.3%)
ISCED 5	30 (23.3%)	81 (37.5%)		13 (13.1%)
ISCED 6	50 (38.7%)	95 (44.0%)		55 (55.6%)
Location, n(%)				
Aktobe	31 (23.7%)	26 (12.0%)	0.02	10 (10.1%)
Almaty	38 (29.0%)	59 (27.3%)		2 (2.0%)
Nur-Sultan	54 (41.2%)	112 (51.9%)		17 (17.2%)
Shymkent	8 (6.1%)	19 (8.8%)		70 (70.7%)
Type of payment, n(%)				
State-funded	51 (25.9%)	45 (36.6%)	0.04	16 (55.2%)
Self-paid	146 (74.1%)	78 (63.4%)		13 (44.8%)

Supplementary Table 5. Past and current medical history of infertility of the study participants by IVF clinical pregnancy status.

Variable	Pregnant, n=216	Not pregnant, n=131	p-value	Unknown, n=99
Comorbidity, n(%)				
Yes	76 (35.2%)	80 (61.1%)	<0.001	18 (18.2%)
No	140 (64.8%)	51 (38.9%)		81 (81.8%)
Infertility duration (years)				
Mean±SD	5.4±3.7	6.1±4.0	0.13	6.7±3.9
Median (IQR)	4.8 (3-7)	5 (3-8)		6.5 (4-9)
Number of previous deliveries, n(%)				
None	144 (66.7%)	90 (69.2%)	0.29	64 (65.3%)
One	50 (23.1%)	33 (25.4%)		29 (29.6%)
Two or more	22 (10.2%)	7 (5.4%)		5 (5.1%)
Number of previous miscarriages, n(%)				
None	190 (88.0%)	111 (85.4%)	0.49	83 (84.7%)
One or more	26 (12.0%)	19 (14.6%)		15 (15.3%)
Number of previous intentional pregnancy interruptions, n(%)				
None	198 (91.7%)	116 (89.2%)	0.45	90 (91.8%)
One or more	18 (8.3%)	14 (10.8%)		8 (8.2%)
Number of previous IVF cycles, n(%)				
None	179 (83.4%)	90 (68.7%)	<0.01	66 (68.7%)
One	18 (8.4%)	26 (19.8%)		23 (24.0%)
2 or more	18 (8.4%)	15 (11.5%)		7 (7.3%)
Cause of infertility, n(%)				
Female	97 (45.1%)	55 (42.3%)	0.32	66 (68.0%)
Male	16 (7.4%)	16 (12.3%)		9 (9.3%)
Mixed	102 (47.4%)	59 (45.4%)		22 (22.7%)

Supplementary Table 6. IVF treatment characteristics of the study participants by IVF clinical pregnancy status.

Variable	Pregnant, n=216	Not pregnant, n=131	p-value	Unknown, n=99
Number of oocytes retrieved				
Mean±SD	11.2±7.8	8.5±7.9	<0.01	11.6±9.4
Median (IQR)	10 (6-14)	7 (2-13)		6 (4-17)
Number of embryos transferred				
Mean±SD	1.7±0.8	1.7±1.9	0.10	4.7±4.9
Median (IQR)	2 (1-2)	1 (1-2)		2 (1-6.5)
Used protocol, n(%)				
Classic-long	23 (10.7%)	11 (8.4%)	0.27	2 (2.2%)
Classic-short	177 (82.3%)	114 (87.0%)		88 (97.8%)
Non-classic – natural cycle	4 (1.9%)	3 (2.3%)		0 (0%)
Non-classic – ultrashort	11 (5.1%)	2 (1.5%)		0 (0%)
Non-classic – stimulated in luteal phase	0 (0%)	1 (0.8%)		0 (0%)

Supplementary Table 7. Simple and multiple Poisson regression analyses of clinical setting and payment type predicting IVF clinical pregnancy (sensitivity analysis, excluding women from Astana private clinic (n=108) with the highest pregnancy rate).

Scales	Clinical pregnancy	
	Crude RR (95% CI)	&Adjusted RR (95% CI)
		Model A
Public clinics	0.47 (0.32; 0.70)*	0.54 (0.39; 0.75)*
		Model B
Public clinics	0.47 (0.32; 0.70)*	0.43 (0.27; 0.69)*
Publicly funded	0.80 (0.51; 1.25)	1.44 (0.90; 2.32)
		Model C
		&Adjusted RR (95% CI)
	Publicly funded	Self-paid
Public clinics	0.87 (0.32; 2.34)	0.34 (0.19; 0.63)

& Each of the models was adjusted for age, BMI, education, comorbidity, cause of infertility, infertility duration, number of previous IVF cycles, number of embryos transferred, and number of oocytes retrieved.

*p<0.05