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Full length article

Knowledge, Attitudes, and Challenges: Irish General practitioners' preparedness for publicly funded Assisted reproductive technologies

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ABSTRACT

Objectives: Global access to assisted reproductive technologies (ART) remains highly inequitable. Until recently, access to ART in Ireland was solely available through private fertility clinics. Publicly funded ART was introduced in September 2023 but eligibility requires patients to meet strict access criteria that include referral by their primary care general practitioner (GP) to the local fertility service. Previous studies report that fertility training amongst doctors, including GPs, is variable and an obstetrics and gynaecology (O&G) rotation is not mandatory for GP trainees in Ireland. This study aimed to investigate GPs' knowledge of fertility investigations and management, as well as attitudes towards publicly funded ART access criteria.

Study Design: A cross-sectional online survey was distributed to GPs working in Ireland between September 2023 and January 2024. The survey questionnaire explored attitudes to, and knowledge of, ART including the publicly funded access criteria. Responses to free-text questions were qualitatively analysed using content analysis.

Results: The study had 154 respondents, representing approximately 4 % of GPs in Ireland. Three quarters (n = 120, 78 %) of respondents were female, 68 % (n = 105) had completed an O&G training rotation and 72 % (n = 111) had further O&G qualifications. However, 69 % (n = 107) reported that they had no training in subfertility investigation and management, and 34 % (n = 53) were not aware of the access criteria for publicly funded ART prior to completing the survey. Almost all GPs (97 %, n = 149) felt that they would benefit from more education on fertility. Qualitative content analysis generated two themes regarding publicly funded ART: (i) the access criteria are too restrictive and (ii) the workload for GPs will increase.

Conclusions: GPs in Ireland are now being tasked with managing infertility and fertility treatment referrals, but most have not been provided with sufficient training. Our study shows that GPs in Ireland desire broader access criteria for publicly funded ART and better fertility training and education for their own clinical practice.

Introduction

The prevalence of infertility is approximately 15 % and increasing worldwide, as is the number of patients requiring assisted reproductive technology (ART) to conceive [1]. Huge disparities exist between the availability and quality of fertility services, and those in developing countries, from ethnic minority groups [2], or from a lower socioeconomic class have the least access to [3,4]. In 2021, Ireland was one of

only four European countries that did not provide ART funding through their national healthcare system and its services were classified as 'exceptionally poor' by the European Parliamentary Forum for Sexual and Reproductive rights [5]. By comparison, countries where multiple cycles of IVF/ICSI are funded, like Belgium, France and the Netherlands were classified as excellent [5].

Historically, individuals in Ireland requiring IVF or other fertility treatments either paid privately or accessed charitable organisation

Abbreviations: AHR, Assisted Human Reproduction; AMH, anti-müllerian hormone; AFC, antral follicle count; ART, Assisted reproductive technology; GMS, General Medical Services; GP, General practitioner; HCP, Healthcare practitioner; HSE, Health Service Executive; ICGP, Irish College of General Practitioners; ICSI, Intracytoplasmic sperm injection (ICSI); IUI, Intrauterine insemination; IVF, In vitro fertilisation; O&G, Obstetrics & Gynaecology.

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Table 1

Eligibility criteria for patients accessing publicly-funded in vitro fertilisation (IVF), intracytoplasmic sperm injection (ICSI) and intrauterine insemination (IUI) treatment [12].

Eligibility criteria:	Guidance regarding lifestyle:
<ul style="list-style-type: none"> Individuals must be ordinarily resident in the State and referred through their GP (patients cannot self-refer) to their local Regional Fertility Hub. There are 6 Regional Fertility Hubs nationally*. <p>Eligible couples must have no living children from the existing relationship and include at least one partner with no living child.</p> <p>Access to publicly funded AHR treatment is available for those individuals who have previously undertaken a maximum of one previous IVF cycle and where all embryos created as part of that cycle have been used</p> <p>A couple/ individual will not be eligible for publicly funded AHR treatment if either partner/ individual has had voluntary sterilisation.</p> <p>To ensure the welfare of any children resulting from AHR treatment, an assessment will be carried out, based primarily upon a self-declaration form.</p> <p>There shall not be more than two intending parents of a child born as a result of AHR treatment and, they shall be in a relationship for at least one year.</p> <p>The intending birth mother should be a maximum age of 40 years plus 364 days at time of referral to Hub, while the maximum referring age for males is 59 years plus 364 days.</p> <p>The BMI of an intending birth mother must be within the range of 18.5 kg/m² – 30.0 kg/m².</p> 	<ul style="list-style-type: none"> Alcohol: Intending birth mother should have no more than one or two standard alcoholic drinks once or twice per week. Males should have no more than three to four standard alcoholic drinks per day, ideally 10 standard drinks or less over a week. <p>Smoking: All intending parents should be non-smoking for at least three months.</p> <p>Recreational/illegal drugs: All intending parents should be non-users of recreational drugs for at least three months.</p>

***Regional Fertility Hubs:** Cork University Maternity Hospital, Galway University Hospital, Nenagh Hospital Tipperary, Coombe Women and Infants' Hospital, Rotunda Hospital, National Maternity Hospital.

funding. The average cost of an IVF cycle in Ireland is between €4,100 and €6,400, which is prohibitively expensive for many people [6]. From 2009 to 2020, the reported number of annual treatment cycles in Ireland increased by 30 % to nearly 10,000 cycles per year [6]. This figure is not reflective of the true number of individuals living in Ireland who use ART, as many continue to travel overseas to access fertility services for financial or legislative reasons. On the 2nd of July 2024 the *Health (Assisted Human Reproduction) Act 2024* was signed into law by the president of Ireland [7]. This act will provide a regulatory framework for assisted reproduction procedures and practices in Ireland. Assisted human reproduction (AHR) legislation for fertility treatments in Ireland has been long awaited with support for legislation in this area among both healthcare professionals and service users [8,9].

The Irish healthcare system involves a complex mixture of public and private provision of services. Ireland does not have a universal healthcare system, unlike many other countries in Europe [10]. In Ireland, public healthcare services are provided by the Health Service Executive (HSE) [11]. In September 2023, the Irish government introduced public funding for ART for couples who meet a range of strict access criteria (presented in Table 1). To avail of this funding, couples must be referred by their GP to one of six regional fertility hubs, secondary level healthcare units that have been developed based on existing maternity

care/referral networks. If deemed eligible, they may have three cycles of intrauterine insemination (IUI) and/or one cycle of IVF or intracytoplasmic sperm injection (ICSI). AHR treatment is provided by private fertility clinics. The HSE pay these clinics to provide AHR for eligible couples under the new scheme.

According to the Irish College of General Practitioners (ICGP) there are just over four thousand GPs currently practicing in Ireland [13], serving a population of just over 5 million people [14]. More than 29 million GP consultations take place in Ireland annually [15]. Many people pay out of pocket to attend their GP (average cost €60 per consultation), around 30 % of the population possess a state-issued medical card which covers the cost of certain health services [16]. GPs are remunerated by the state for these services under the general medical services (GMS) scheme. Maternity and early childhood (up to the age of 8 years of age) GP care is state funded under the Maternity and Infant Care Scheme and the Under 8 s GP visit card scheme [17,18].

Previous studies show that the knowledge of fertility amongst healthcare providers (HCPs) is variable and often limited [19–21]. The ICGP curriculum states that a GP should be able to 'identify and manage the medical and emotional elements associated with sub-fertility' and 'recognise the role of the GP in the diagnosis and treatment of subfertility' [22]. The GP is often the first HCP that people encounter when they experience infertility and thus they play a key role in their fertility care. The Irish National Clinical Practice Guideline on Fertility Investigations and Management in Secondary Care states that people seeking a fertility consultation should be initially reviewed in primary care [23]. All GPs in Ireland receive training in providing care to women in a primary care setting, however, an obstetrics and gynaecology (O&G) hospital rotation is not mandatory for trainee GPs in Ireland and thus training in fertility may be limited for GPs. Lack of knowledge on how to properly investigate and manage infertility, as well as uncertainty around the available referral pathways, are likely to result in delayed access to treatment.

We aimed to assess the knowledge of, and attitudes towards, fertility investigations and management amongst GPs, as the primary care provider in our newly launched publicly funded ART scheme. We also aimed to explore GP opinions of the current access criteria for couples wishing to avail of ART through this scheme.

Materials and methods

Study questionnaire design

A survey questionnaire was designed to investigate the following themes amongst GPs:

- Level of experience and interest in women's health and fertility
- Knowledge of and confidence interpreting investigations of female ovarian reserve
- Knowledge of referral pathways for people with infertility and current access criteria for state funded ART
- Opinions on current access criteria for publicly funded ART

The survey consisted of 27 questions. The questions were developed specifically for this study by the authors (SP, LG and DC) and the initial version was piloted with members of the ICGP and led to the refinement of questions – rephrasing of some questions and listing types of women's health qualifications a GP can obtain.

The initial four questions established the GPs broad demographic information through closed questions on age, gender, number of years of experience and location of training. The next five questions explored the GP's experience in O&G and fertility. GPs were asked if they had completed a rotation in O&G, whether they had an interest in women's health and fertility and whether they had completed formal training in women's health. This was followed by eight questions on knowledge of fertility investigations, management, and referral pathways. GPs were asked to rate their confidence in interpreting investigations such as anti-

Table 2

Characteristics of General Practitioner respondents explored by gender, age and years of experience Fisher Test for comparison between respondent groups; O&G=Obstetrics and gynaecology, WH=women's health, yrs = years; Data for gender analysis represents 153 participants, as one respondent preferred not to state their gender.

Training, experience and knowledge of fertility	Total n (%)	Gender n (%)		p-value	Age n (%)		p-value	Experience n (%)		p-value
		All	Male		Female	≤40yrs		>40yrs	≤10yrs	
O&G experience	(n = 154) 105 (68)	(n = 33) 21 (63.6)	(n = 120) 84 (70)	0.53	(n = 82) 59 (72)	(n = 72) 46 (64)	0.3	(n = 93) 65 (70)	(n = 61) 40 (66)	0.6
WH interest	107 (70)	7 (21.2)	100 (83)	<0.0001	55 (67)	52 (72)	0.6	64 (69)	43 (46)	0.99
WH qualification	111 (73)	14 (42.4)	96 (81)	<0.0001	59 (72)	52 (74)	0.85	66 (71)	45 (76)	0.57
Fertility training	47 (31)	7 (21.2)	40 (33)	0.21	22 (27)	25 (35)	0.3	24 (26)	23 (37)	0.15
Knowledge of referral pathway	95 (62)	18(54.5)	76(63)	0.42	50 (61)	45(63)	0.86	53 (57)	34 (56)	0.99
Knowledge of public criteria	101 (66)	15 (45.5)	85(71)	0.012	55 (67)	46 (64)	0.74	61 (66)	40 (66)	0.99

Müllerian hormone (AMH) and antral follicle count (AFC) on a four point Likert scale. The final section sought opinions on the publicly funded ART access criteria and included several open-ended, free text questions. GPs were asked their opinions on the fairness of current criteria and if they had any more comments relating to education of GPs on fertility.

Study participants and recruitment

The study was approved by the Research Ethics Committee at the National Maternity Hospital, Dublin, Ireland (EC26.2023). Fully qualified GPs currently practicing in Ireland were invited to complete the online questionnaire between September 2023 and January 2024. GPs were invited to participate using direct email that included an invitation to attend a GP study day with an education session on women's health at the National Maternity Hospital. Reminder emails were sent after a month. Flyers on the survey with a QR code were provided to GPs who attended the study day and a snowballing approach was also used whereby existing respondents recruited additional people from their personal networks [24].

Analysis

GraphPad PRISM 9 was used for the descriptive statistical analysis.

Table 3

Access Criteria for ART Funding: Survey respondents (n = 154) were asked to indicate which of the current access criteria they deem as fair. Responses are analysed by gender, age and years of experience in practice. This table indicates the number and percentage of respondents who agreed with the access criteria. Fisher test for comparison between respondent groups. Data for gender analysis represents 153 participants, as one respondent preferred not to state their gender.

Which of the following access criteria do you think are fair for couples?	All	Gender, n (%)			p-value	Age, n (%)		p-value	Years of experience, n (%)		
		Male	Female	p-value		≤40	>40		≤10	>10	p-value
Total	154 (100)	33 (21)	120 (78)		82 (53)	72 (47)		93 (60)	61 (40)		
Access Criterion:											
Resident in Ireland	144 (93)	31 (94)	111 (93)	0.99	77 (94)	66 (92)	0.76	87 (94)	56 (92)	0.75	
Relationship > 1 yr	88 (57)	16 (49)	71 (59)	0.99	48 (59)	40 (56)	0.75	53 (57)	35 (58)	0.99	
Female age 18–41 yr	118 (77)	26 (79)	91(76)	0.82	67 (82)	51 (71)	0.13	73 (79)	45 (74)	0.56	
Male age 18–60 yr	81 (53)	11 (33)	69 (58)	0.02	49 (60)	33 (46)	0.11	54 (58)	28 (46)	0.18	
Female BMI 18.5–30	86 (56)	18 (55)	67 (56)	0.99	48 (59)	38 (53)	0.52	52 (56)	34 (56)	0.99	
One partner, no children	56 (36)	11 (33)	44 (37)	0.84	40 (49)	16 (22)	0.001	41 (44)	15 (25)	0.02	
Never sterilisation	83 (54)	18 (55)	64 (53)	0.99	50 (61)	33 (46)	0.08	56 (60)	27 (44)	0.07	

Previous training in women's health and fertility

Female GPs were significantly more likely than their male counterparts to have both an interest in (83.3 % v 21.1 %, $p < 0.001$) and qualifications in women's health (81.4 % v 42.4 %, $p < 0.001$). Over two-thirds of GPs had completed an O&G rotation ($n = 105$, 68 %) and under a third ($n = 47$; 30.5 %) reported fertility training in the form of experience working in fertility clinics ($n = 12$), attendance at webinars or conferences ($n = 33$) and professional courses or qualifications in fertility ($n = 3$).

Knowledge of and confidence interpreting fertility investigations

The majority of GPs stated that they were somewhat knowledgeable about ovarian reserve testing (52 %, $n = 80$) with just 6.5 % ($n = 10$) of respondents reporting they were very knowledgeable and 41.5 % ($n = 64$) reporting they were not very knowledgeable.

Female GPs rated their knowledge of ovarian reserve testing higher than male GPs, with 35 % of female respondents ($n = 43$) reporting they were not very knowledgeable compared with 61 % ($n = 20$) of male respondents ($p = 0.035$, Chi-square test).

Knowledge and awareness of referral pathways and criteria for state funding of ART

Over one third of respondents were unaware of the infertility referral pathway ($n = 59$, 38 %) and the access criteria for ART funding prior to completing the survey ($n = 53$, 34 %). Female GPs were significantly more likely to have been aware of the public funding criteria prior to completing the survey than male GPs (70.8 % vs 45.5 %, $p = 0.012$). Nearly all ($n = 149$; 97 %) respondents felt GPs would benefit from more education on fertility.

Opinion on fairness of current access criteria

Participants were asked to report their opinions on the current access criteria for state funding. This is outlined in Table 3. Most respondents (92.9 %, $n = 144$) felt that it was fair for people accessing state funding ART to be resident in Ireland, while a majority agreed that couples should be in a relationship for over one year (57.1 %, $n = 88$). Fewer respondents felt the age and BMI limits were fair. Just over three quarters of GPs (76.6 %, $n = 118$) felt that the female age limits of 18–41 years were fair, and GPs who were aged > 40 years themselves were less likely to think the female age limit was reasonable (70.8 %, $n = 51$). Just over half of all GPs (52.6 %, $n = 81$) felt that the male age limit of 18–60 years was fair. Interestingly, male GPs were less likely to agree this was fair than female GPs (33.3 %, $n = 11$ and 57.5 %, $n = 69$; $p < 0.05$) respectively. The criterion that GPs most opposed is that at least one partner must have no living children, thereby excluding couples with secondary infertility. Only 36.4 % ($n = 56$) overall indicated that they felt this was fair, with fewer respondents aged over 40 years agreeing with this criterion ($n = 12$, 22 %) than those aged 40 years or less ($n = 40$, 49 %; $p < 0.001$). GP study participants were further asked to provide comments on their responses for qualitative analysis.

Content analysis

Almost half of the respondents provided free text responses ($n = 75$, 48.7 %). The content analysis on publicly funded ART developed two themes: [1] criteria are too restrictive; [2] identification and referral will increase GP workloads and have major resource implications.

Fifteen and twelve respondents (all female), respectively, singled out the female BMI and age limits in particular as being too restrictive:

'More than half of Irish adults are overweight or obese. It has an impact on fertility obviously, but once again "others" a group that have enough stigma'

Female, aged > 40 years, >10 years in practice.

'Quite restrictive re age- discriminating against women who try to conceive at a later age'

Female, aged < 40 years, <10 years in practice.

Nine GPs (all female) commented that they felt that the male age limit < 60 years was too high and that it was disproportionate to the female age limit of < 41 years:

'If females have to be < 41 I think it's unfair that males can be up to 60!'

Female, aged > 40 years, >10 years in practice.

A number of GPs also highlighted that same-sex couples ($n = 10$) and those suffering secondary infertility ($n = 3$) should be included:

'I think having one living child should not be barrier. Secondary infertility is as devastating as primary infertility.'

Female, aged > 40 years, >10 years in practice.

There were some dissenters among respondents, who felt the access criteria were reasonable given limited resources ($n = 5$) and that the female age criteria could be more restrictive, given the impact of female age on ART success ($n = 3$):

'Controversial issue. Limited resources make cut offs necessary. Resources should be targeted at those most likely to benefit'

Male, aged < 40 years, <10 years in practice.

Several respondents ($n = 8$) referred to the increased workload that referring people with infertility would bring as well as the additional training requirements. Some respondents ($n = 3$) highlighted that the health service have not provided them with adequate information:

'We were not sent any direct communication re: the referral pathways locally or the criteria which is frustrating-for us & for patients....'

Female, aged < 40 years, <10 years in practice.

Several GPs ($n = 5$) commented on the need for better fertility training and education:

'Fertility treatment is a bit of minefield. It would help to have a lot more understanding about all the different tests, procedures and medications used as patients often ask the GP for advice....'

Female, aged < 40 years, <10 years in practice.

Discussion

We aimed to explore GP understanding of infertility management and acceptance of the newly funded public ART scheme in Ireland. Whilst just over two thirds (68 %) of GPs who responded had completed a rotation in O&G, the majority (70 %) had not received any formal training in fertility. Clearly, better education on fertility is needed, and nearly all (97 %) GPs who responded wish for this. Since we circulated our survey, the ICGP has published a quick reference guide for Fertility Assessment in General Practice (published in March 2024) which includes advice on appropriate investigations and referral pathways, along with the current public funding criteria [25].

The access criteria for publicly funded ART have been discussed widely in the media, female BMI limits in particular have been debated and have been described as 'crude' [26,27]. In addition, the criteria for public funding excludes same sex couples, couples with secondary infertility and those who require the use of donor gametes which has been described as 'disappointing' and 'unfair' by groups such as *LGBT Ireland* and *Equality for Children* [28]. GP's opinions seem to align with these views that the criteria are too restrictive. Even those who meet

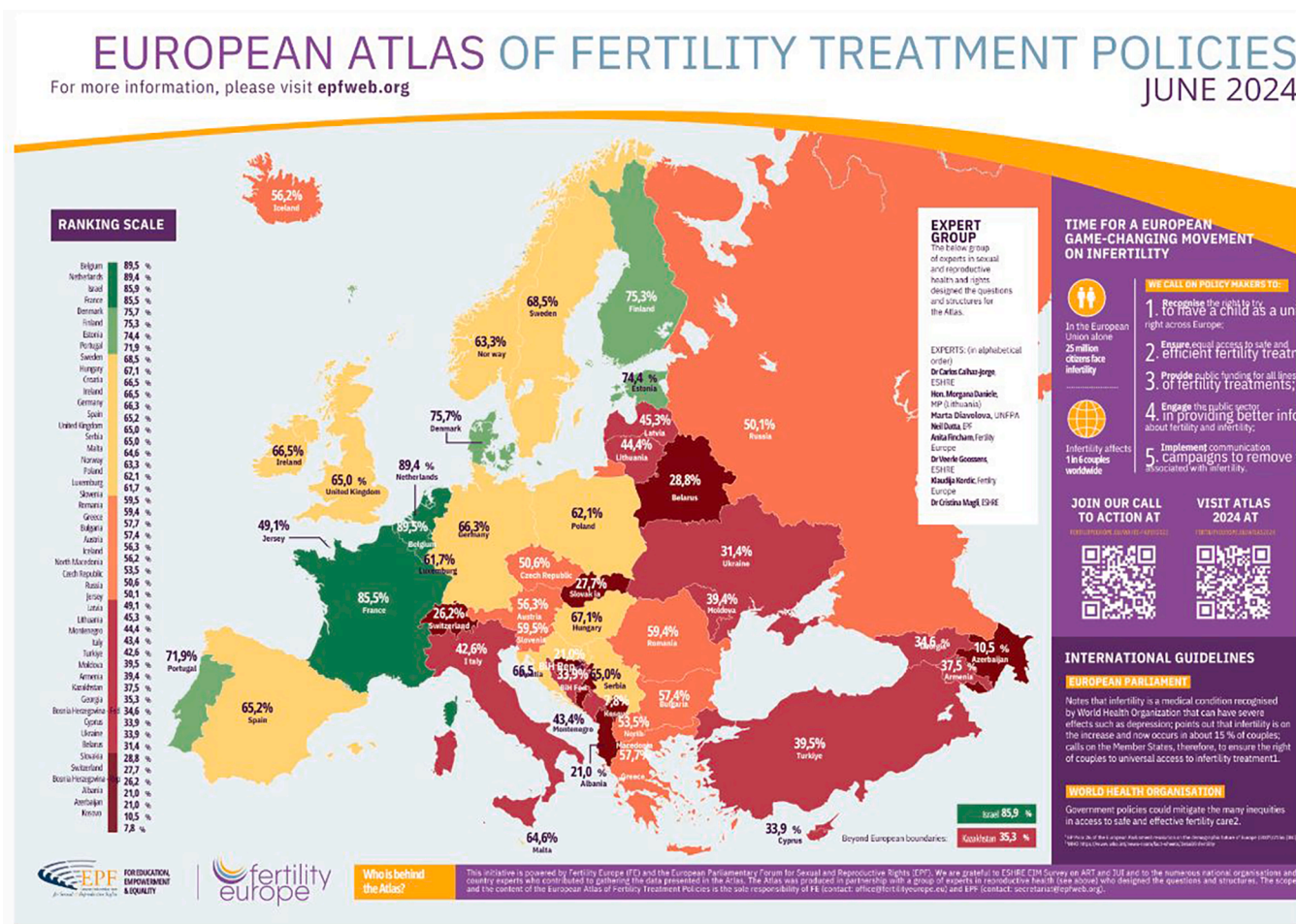


Fig. 1. Fertility Atlas 2024.

access criteria are only entitled to one cycle of IVF. The European Atlas of Fertility Treatment Policies 2024, published by Fertility Europe in conjunction with the European Parliamentary Forum for Sexual and Reproductive Rights evaluates 49 countries and territories based on their access to equitable, safe, and efficient fertility treatments (Fig. 1) [29]. Current fertility services in Ireland are classified as ‘medium’ on atlas as fertility services are limited to selected groups and funding is variable. A ‘perfect’ country would provide full treatment funding for 4 IUIs and 6 IVF/ICSI cycles nationwide, amongst other criteria including AHR legislation, non-anonymous gamete donation and state funded fertility education programmes [30]. Ireland is not the only country which has further room for improvement in its provision of fertility services. At present only eight European countries provide six or more cycles of IVF/ICSI and only four countries provide a state organised and funded fertility education programme (France, Germany, Latvia and the UK) [30].

Limitations to this study included the small sample size, our respondents represented just 4 % of practicing GPs in Ireland. There is evidence of gender bias with female GPs making up 78 % of respondents. This is not fully reflective of the population of GPs in Ireland where female GPs represent approximately 50 % of GPs [31,32]. There was also selection bias as those who are interested in fertility and women’s health were more likely to respond, particularly as we targeted GPs interested in attending a study day in women’s health at a maternity hospital. Nonetheless, our survey was timely, coinciding with the introduction of publicly funded ART in Ireland. To our knowledge, this study is the first of its kind to investigate knowledge of fertility and attitudes towards publicly funded ART criteria amongst GPs in Ireland. Whilst this survey focuses on the opinions of a small number of GPs in a

small country, the issue of inequitable access to fertility care is a global one.

Conclusion

GPs in Ireland have been tasked with providing fertility services, but most have not been provided with proper education. The current access criteria for public funding in Ireland is narrow and the number of cycles that are publicly funded is limited, thus many patients are still privately funding cycles or travelling abroad to access services. We hope that with the introduction of AHR legislation, awareness of infertility will continue to improve amongst HCPs and the general population, and that services will continue to expand so that Irish fertility services may become ‘excellent’.

CRedit authorship contribution statement

Sarah Petch: Writing – original draft, Methodology, Investigation, Data curation, Conceptualization. **Jenny Stokes:** Writing – review & editing, Writing – original draft. **Louise Glover:** Writing – review & editing, Methodology, Formal analysis, Conceptualization. **Sharleen O’Reilly:** Writing – review & editing, Formal analysis. **David Crosby:** Writing – review & editing, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- [1] Sun H, Gong TT, Jiang YT, Zhang S, Zhao YH, Wu QJ. Global, regional, and national prevalence and disability-adjusted life-years for infertility in 195 countries and territories, 1990–2017: results from a global burden of disease study, 2017. *Aging (Albany NY)* 2019;11(23):10952–91.
- [2] Messinis IE, Messini CI, Anifandis GM, Daponte A, Mukhopadhyay S, Mahmood T. EBCOG position statement: Inequality in fertility treatment in people of colour. *Eur J Obstet Gynecol Reprod Biol* 2021;266:74–6.
- [3] Ekechi C. Addressing inequality in fertility treatment. *Lancet* 2021;398(10301):645–6.
- [4] Perritt J, Eugene N. Inequity and injustice: recognizing infertility as a reproductive justice issue. *F S Rep* 2022;3(2 Suppl):2–4.
- [5] European Atlas of Fertility Treatment Policies 2021.
- [6] Timoney A. Data: Assisted Human Reproduction. Oireachtas Library & Research Service 2022.
- [7] Act 2024, (2024)..
- [8] O'Brien S, Schaler L, Giblin A, Glover LE, Wingfield M. Assisted human reproduction legislation: Listening to the voice of patients. *Eur J Obstet Gynecol Reprod Biol* 2023;284:169–74.
- [9] Schaler L, Giblin A, Glover LE, Wingfield M. Assisted human reproduction legislation: Acknowledging the voice of health care professionals. *Eur J Obstet Gynecol Reprod Biol* 2023;280:28–33.
- [10] Connolly S, Wren MA. Universal Health Care in Ireland-What Are the Prospects for Reform? *HealthSyst Reform* 2019;5(2):94–9.
- [11] HSE. HSE Organisational Structure 2024 [Available from: <https://www.hse.ie/eng/about/who/>].
- [12] Minister for Health announces full funding for assisted human reproduction treatment from September [press release]. 25th July 2023.
- [13] Highest ever number of GP Training Places in 2024 Programme [press release]. 2nd October 2023 2023.
- [14] Office CS. Economic and Social Change in Ireland from 1973-2023. 2023.
- [15] Collins C, Homeniuk R. How many general practice consultations occur in Ireland annually? Cross-sectional data from a survey of general practices. *BMC Fam Pract* 2021;22(1):40.
- [16] P V. Share of population with a medical card in Ireland 2006-2022. 2024.
- [17] Executive HS. Maternity and Infant Care Scheme 2024 [Available from: <https://www.hse.ie/eng/services/list/3/maternity/combinedcare.html>].
- [18] Executive HS. Under 8s GP visit card 2024 [Available from: <https://www2.hse.ie/services/schemes-allowances/gp-visit-cards/under-8s/>].
- [19] Grace B, Shawe J, Stephenson J. Exploring fertility knowledge amongst healthcare professional and lay population groups in the UK: a mixed methods study. *Hum Fertil (Camb)* 2023;26(2):302–11.
- [20] Tsai S, Truong T, Eaton JL. Fertility awareness and attitudes among resident physicians across different specialties. *J Assist Reprod Genet* 2022;39(3):655–61.
- [21] Yu L, Peterson B, Inhorn MC, Boehm JK, Patrizio P. Knowledge, attitudes, and intentions toward fertility awareness and oocyte cryopreservation among obstetrics and gynecology resident physicians. *Hum Reprod* 2016;31(2):403–11.
- [22] Irish College of General Practitioners 2020.
- [23] Schäler L OLD, Barry M, Crosby DA. National Clinical Practice Guideline: Fertility-Investigation and Management in Secondary Care.: National Women and Infants Health Programme and The Institute of Obstetricians and Gynaecologists.; October 2023.
- [24] O'Brien Y, Martyn F, Glover LE, Wingfield MB. What women want? A scoping survey on women's knowledge, attitudes and behaviours towards ovarian reserve testing and egg freezing. *Eur J Obstet Gynecol Reprod Biol* 2017;217:71–6.
- [25] O'Leary DDM, Dr C. Fertility Assessment in General Practice: Quick Reference Guide. ICGP Quality & Safety in Practice Committee 2024.
- [26] Publicly-funded H-J, Ahr,. How will it work and how can people avail of it? *The Irish. Times* 2023. 25th July 2023.
- [27] Houston M. State-funded IVF: Hands of bean counters all over crude cut-off criteria. *The Irish. Times* 2023.
- [28] Eligibility criteria published for publicly-funded IVF treatment [press release]. RTE, 25th July 2023 2023.
- [29] Eupean Atlas of Fertility Treatment Policies 2024.
- [30] Rights EPPfSaR. European Atlas of Fertility Treatment Policies 2024 2024 [Available from: <https://fertilityeurope.eu/atlas2024/#:~:text=The%20%E2%80%9CEuropean%20Fertility%20Treatments%20Policies,safe%2C%20and%20efficient%20fertility%20treatments>].
- [31] Planning NDT. Medical Workforce Analysis Report 2023-2024. HSE; 2024.
- [32] Keenan I, Cullen L, Hogan G, O'Herlihy N, McCarthy C, Collins C. Profile of Irish female GPs and factors affecting long-term commitment: a descriptive study. *BJGP Open* 2024.