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Opinion article

Racing Against Time: Integrating Assisted Reproduction into European Natality Policies

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Abstract

Europe faces an accelerating demographic shift driven by several factors, including persistently low birth rates and delayed parenthood, resulting in population ageing and shrinking reproductive potential. While natality policies have traditionally focused on family benefits, gender equality, and work–life balance, these measures alone are insufficient to reverse fertility trends. The postponement of childbearing reduces natural fecundity, increases adverse perinatal risks, and heightens demand for assisted reproductive technologies (ART). However, ART success rates decline sharply with age, and access remains uneven due to regulatory restrictions, age limits, and financial barriers. Significant cross-country disparities in ART utilization stem from varied funding models and eligibility criteria, challenging the principle of universal health care.

This article argues for the strategic integration of ART into natality policies, framing infertility as a public health issue. It outlines priority actions: dedicated funding for public ART centers, investment in laboratory technology, a national data registry, centralized waiting list management, establishment of a public gamete bank, promotion of research, and uniform referral criteria. Such measures aim to ensure equitable, efficient, and transparent access while safeguarding financial sustainability.

The authors advocate for results-based governance, data-driven decision-making, and consistent investment in ART infrastructure as indispensable components of demographic renewal strategies. Integrating ART into broader socioeconomic policies is essential to address the "race against time" faced by individuals seeking to fulfil reproductive goals, and to uphold the constitutional principle of universal health coverage in ageing European societies.

Manuscript

Europe is ageing [1]. How can we tackle its ageing crisis? One of the causes of this significant demographic transformation is low birth rates, largely influenced by socioeconomic conditions [2-4]. Factors related to housing policy, high cost of living, job insecurity but also the increasing number of women in the labour market and in leadership positions have been accompanied by a rise in the average age at the birth of the first child and a reduction in the number of births per woman [5-8]. For this reason, in European countries, demographics have been central to many public policies [9]. Hence, in recent decades, integrated policies have been implemented with the aim of increasing natality rates. They focus largely on assuring literacy and comprehensive sexuality education, family policy measures (birth allowances, monthly child benefits, access to childcare, and extended parental leave) and efforts to reduce gender inequalities in the workplace [10-12]. In countries where fertility rates have stabilised — such as Sweden and Denmark — policies focus predominantly on reconciling work and family life [13]. Their effectiveness is largely linked to continuity, ensuring economic and social stability and security for families [14,15]. The postponement of parenthood can be a source of stress and has an important impact on the relationship and the

couple's overall well-being [16]. It also has direct implications on reproductive potential: fecundity, which is the ability to reproduce, declines with age, especially for women [17]. In addition, advance pregnancy ages are associated with adverse maternal and perinatal outcomes.

A narrowing time frame to fulfil parental aspirations acts as a driver towards increased demand for assisted reproductive technologies (ART). Unfortunately, fertility treatment success rates also rapidly decline with age [18]. ART is an enabling technology for infertile patients and it can circumvent some reproductive barriers and model social pressures. It is therefore an integrating part of cultural evolution of modern populations.

The reduced reproductive potential of populations associated with late parenthood addresses governments with a dual challenge: to create socioeconomic conditions that encourage earlier parenthood, and to ensure heathcare systems with equitable and timely access to ART.

Across countries, there are substancial differences in the proportion of babies borns as a result of ART. According to the most recent report from de European Society of Human Reproduction and Embriology, between 1.2% to 6.3% of european children were conceived through ART in 2019. Proportion of ART infants above 5% were reached in Belgium, the Czech Republic, Denmark, Estocina and Iceland. Cross-country variations are partly due to the existence of different regulatory frameworks anf funding arrangements, which can deeply affect the accessibility and the affordability of services. These are probably the main ways policies can affect the utilization of ART. Governements may place regulatory barriers on ART treatments by limiting access only to women in specific types of relationships, or only to women under a certain age limit. Additionally, governements affect the affordability of treatment for patiensts through their funding arrangements. After subsidization has been taken into account, the cost of an IVF cycle has been estimated to range between 6% of total disposable income (Australia) up to 50% of total disposable income (United States). Age is usually a major requirement for reimbursement, with the age limit to receive public coverage for treatment often considerably lower than the age limit to access services. Guaranteeing equity in line with the constitutional principle of universal care is an ongoing challenge. The barriers to truly equal access to fertility treatment across Europe are a concern of the European Parliament that calls on Member States to ensure access to ART for all individuals of reproductive age, to treat infertility as a public health issue, and to develop policies aimed at improving accessibility [16].

Despite the marked increased in the use of ART, specially among high-income countries, there is still much to know about its impact on fertility rates [19,20]. Nevertheless, today, 22 countries around the world provide full or partial public funding for ART. It therefore seems clear that effective natality policies cannot be limited to providing financial support to families: they must also integrate strategic investments in ART centres. Thus, it is essential to consider the financial sustainability of health systems, also in a context of scarce resources, while guaranteeing the principle of universal health care. Public decision-making must always be informed, ensuring three fundamental pillars: efficiency, comprehensiveness, and outcomes. From this perspective, strengthening investment in ART as part of natality policies should include: (1) dedicated funding: the State, as a purchaser of healthcare, should set treatment prices and annual activity levels for each public centre. Capitation funding can promote sustainability and preventive health, but it shoud not substitute a specific funding line for this area; (2) laboratory investment: technological advances enable substantial gains in the number and success of ART cycles; (3) national data registry: unified information systems allow efficient cycle management and resource sharing between units; (4) national waiting list management, to insure equity, efficiency, and transparency in access to treatment; (5) the establishment of a Public Gamete Bank, to meet population needs, creating financial incentives for donation that benefit both donors and centres; (6) research promotion, as scientific development and advancement are essential to the sustainability and improvement of existing care techniques; (7) uniform referral criteria- equal access to fertility treatments across Europe should be imperative.

Given the available evidence and in a results-based evaluation framework, it is essential for governements to understand the reality of patients racing the sunset to achieve their reproductive goals. This implies assuming clear responsibilities and setting concrete priorities for integrating ART into natality strategies. Precise data is crucial: how many patients are awaiting treatment, how many are duplicated on waiting lists, how many lose eligibility due to age limits, and the actual cost per birth achieved through ART.

In summary, the main performance indicator of an ART centre — the birth of a healthy child — must be accompanied by public policies based on transparency, accountability, and efficiency. Consistent investment in public ART centres, combined with centralised resource management and uniform access criteria, is not only desirable: it is a necessary condition to ensure equity and fulfil the constitutional principle of universal health care.

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