



# Ethical issues in assisted reproductive technologies

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**Training in Research in Reproductive Health  
Geneva 2005**



## Assisted Reproductive Technologies (ART)

- All treatments or procedures that include the in vitro handling of human oocytes and human sperm or embryos for the purpose of establishing a pregnancy

(in vitro fertilization and transcervical embryo transfer, gamete intrafallopian transfer, zygote intrafallopian transfer, tubal embryo transfer, gamete and embryo cryopreservation, oocyte and embryo donation, gestational surrogacy)



## First Successful IVF: Birth of Louise Brown in 1978





# Since 1978 over one million children born worldwide



- *Event launching the World Infertility Month at the United Nations in New York in June 2002*



**Rapid developments in the field of ART**

**“Moral panic” about the changes that IVF brought about**

**Continuous ethical dilemmas**

**Legislation**



## Rapid Developments

- **Better protocols for ovulation induction**
- **Success rates**
- **ICSI**
- **PGD**
- **Cloning techniques (animal cloning and claims for human cloning)**



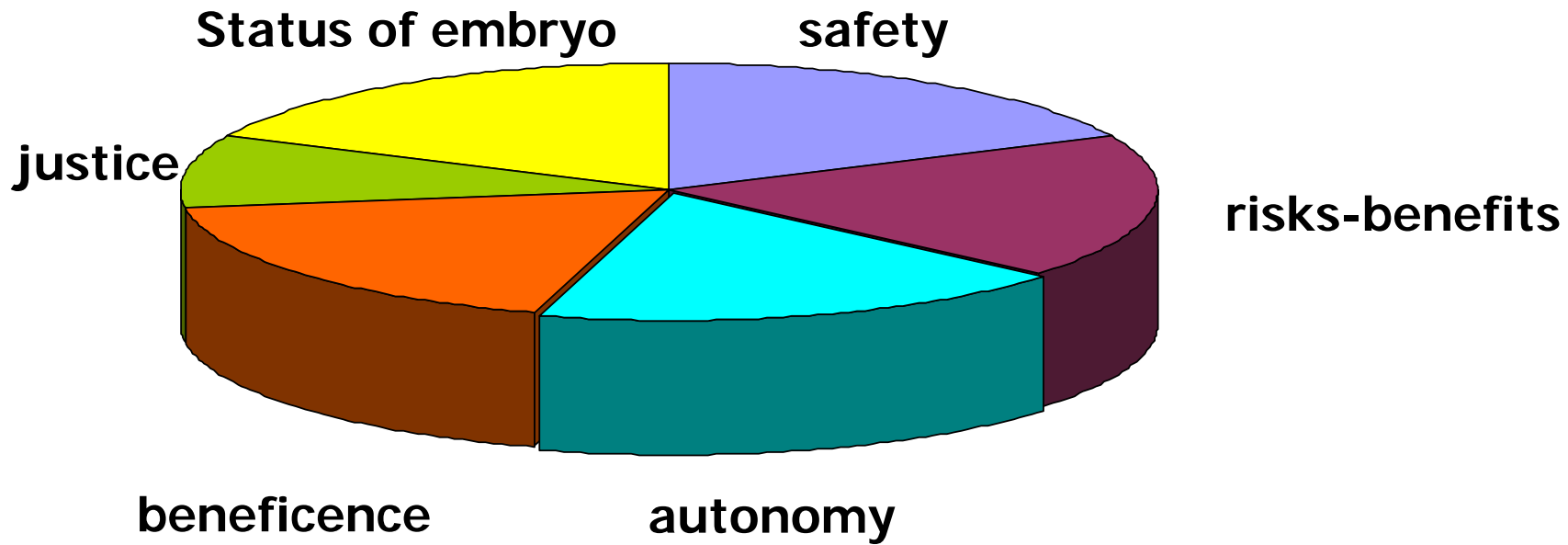
## “Moral panic”

- **No society has been neutral about reproduction**
- **social values**
- **morals**
- **fears**

- Separation of sex from reproduction
- Reproduction with the involvement of a third party
- Gender issues
- Pronatalist attitudes



## Ethical concerns







## Ethical concerns/ autonomy

- Autonomy
  - Patient's autonomy (respect for autonomy)
    - Reproductive freedom
    - Decision based on accurate information
  - Medical responsibility

• Woman requests implantation of seven embryos



## Ethical concerns/ autonomy

- Two embryo transfer:
  - » Australia (RT Accreditation Committee)
  - » Finland (agreement between clinics)
  - » Israel (<40 yrs, first cycles)
  - » The Netherlands (agreement between clinics)
  - » New Zealand (<40 yrs)
  - » UK (HFEA, <40 yrs)
- One embryo transfer:
  - » Sweden (national Board of health & welfare)
  - » Belgium



## Ethical issues/ autonomy

- **Eligibility**

- all infertile couples
- only married couples
- single women without partners
- gay couples
- lesbian couples
- menopausal women
- HIV-positive women or couples

• 58-year-old couple seeks ART



- **A gay couple, Janice and Lisa, had been in a stable relationship for over five years and decided to have a family. One would become pregnant using donor sperm, and they would both raise the child in a loving environment. The women had top private health cover, so could easily afford the procedure, both were professional women and could also easily afford the costs associated with raising a child, however, neither disclosed their sexual preference when they entered the programme. (There was formal opportunity to do so in the various application forms)**
- **Upon discovering the nature of their relationship the Director of the clinic, refused to allow them to continue in the programme on the basis that the legislation allows for couples where conception cannot occur naturally. He stated that a preliminary medical examination revealed both women could in fact conceive naturally, their problem in not achieving conception was due to a sexual preference, not a biological problem, thus they did not actually need the in-vitro procedure to have a baby, moreover given that the couple were gay, they did not qualify for access to the programme.**



TABLE 2

Marital status in ART.

Country	Legislation	Guidelines	Couple restrictions
Argentina		+	Stable relationship
Australia (West)	+		No requirement
Australia (South)	+		No requirement
Australia (Victoria)	+		Stable relationship
Australia (Remainder)		+	No requirement
Austria	+		Stable relationship
Belgium	+		No requirement
Brazil	+		Stable relationship
Canada <sup>a</sup>			Stable relationship
China			Marriage
Czech Republic	+		Stable relationship
Denmark	+		Stable relationship
Egypt	+		Marriage
Finland			Stable relationship, single woman
France	+		Marriage, stable relationship (≥2 y)
Germany	+		Stable relationship
Greece			Marriage
Hong Kong	+		Marriage
Hungary	+		Marriage, stable relationship
India			Marriage
Ireland		+	Stable relationship
Israel <sup>a</sup>	+		Marriage, stable relationship
Italy			Stable relationship
Japan		+	Marriage
Jordan			Marriage
Korea		+	Marriage
Mexico		+	Stable relationship
The Netherlands	+		No requirement
Norway	+		Stable relationship
Poland		+	Stable relationship
Portugal		+	Stable relationship
Saudi Arabia	+		Marriage
Singapore	+		Marriage
South Africa	+		No requirement
Spain	+		No requirement
Sweden	+		Stable relationship
Switzerland	+		Stable relationship
Taiwan	+		Marriage
Turkey	+		Marriage
United Kingdom	+		No requirement
United States of America	+		Stable relationship
Venezuela			Not an issue

<sup>a</sup> Single women are allowed to have ART with donor.



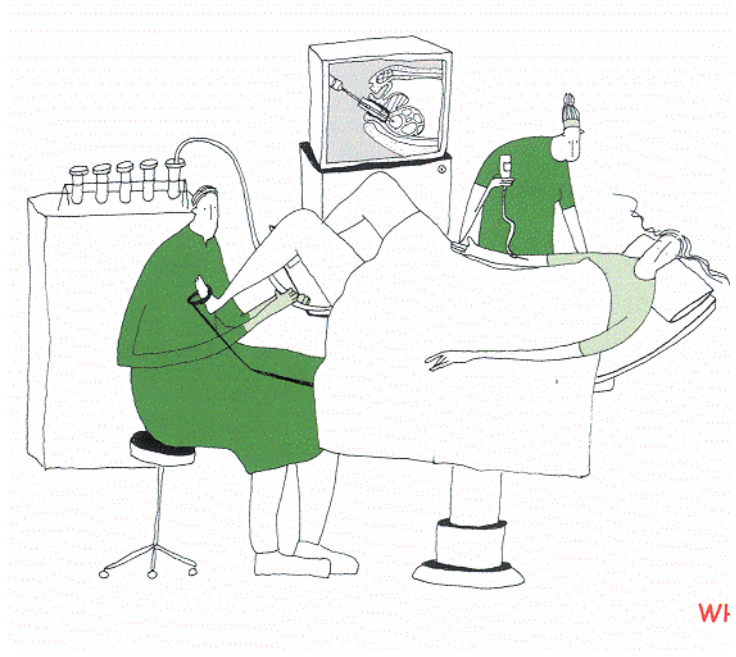
## Ethical concerns/ donation

- Gamete donor

- Sperm



- Oocytes





## Ethical issues/donation

- **EGG DONOR NEEDED**
- **Couple seeks egg donor with 1420 SAT or 33 ACT, 18-28 yrs old, 5'4"-5'10", attractive, athletic and healthy. Grandparents European and at least one Jewish. Compensation is \$25,000. Email photos and scores to Nancykp9@aol.com**

### – Commercialization

- » **Ethical arguments against** (exploitation, potentiality, dignity, risk for distinctions in genetic pedigree)
- » **Ethical arguments for** (justice, pay for a service, reward, reproductive tourism)



## Ethical issues/ donation

### alternative sources of donor eggs

- **Eggs and ovaries from aborted female fetuses**
  - Repugnance
  - Respect of dignity
  - Best interest of the child
- **Donation of eggs and ovaries after a woman's death**
  - Existence of consent
  - Best interest of the child
- **Egg sharing**





## Ethical issues/ donation

- **Donor anonymity**

- (i) the right of autonomy and privacy of the parents;**
- (ii) the right of privacy of the donor;**
- (iii) the right of the child to know his/her origins.**



## Ethical issues/ PGD

- **Pre-implantation genetic diagnosis (PGD)**  
screening of cells from preimplantation embryos for the detection of genetic and or chromosomal disorders before embryo transfer

- **Status of the embryo**

- Discrimination
- “Designer” babies
- Sex selection
- Destruction of unwanted embryos



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Programs



**Last Update:** Monday, March 8, 2004.  
8:19pm (AEDT) [Print](#) [Email](#)



The AMA wants more debate on the ethics of IVF research. (file photo) (ABC)

## AMA calls for IVF ethics debate

The Australian Medical Association (AMA) says greater debate is needed on the ethics of In Vitro Fertilisation (IVF) techniques after doctors designed a lifesaving baby for the parents of a child with an incurable

disease.  
A Tasmanian woman is pregnant with a baby who will be a tissue match and a lifesaver for his four-year-old brother.

AMA president Dr Bill Glasson says if the intent is to create another child that is disease free and can help the sibling then it could be argued that it is ethically correct.

But he says if the intent is to create an embryo that is compatible with the sick child and in doing so discards a series of other embryos, then the process has to be questioned.

"It's a difficult one," he said.  
"I think it's one that society has to talk about, what's happening here is science is getting ahead of the ethics of the issue, and as a community I think we have to talk about it."

**Related Video**  
Doctors used IVF techniques to create a healthy baby boy who will be able to donate tissue to his big brother who has a rare genetic disease.  
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## Ethical issues/ PGD

**Sarah is 30 years old. Previous genetic testing shows that she is a carrier for cystic fibrosis (CF). Her partner is a carrier as well. Despite the fact that she is not infertile, she seeks IVF treatment at an assisted reproduction clinic at an NHS Trust Hospital in order that any resulting embryos can be screened using pre-implantation genetic diagnosis (PGD) and only embryos without the CF gene will be implanted.**



## Ethical issues /risks-benefits

- **The welfare of the child**
  - Medical risks
  - Family environment
  - Social environment
- **Who is making the decisions for the welfare of the child?**
  - Parents
  - Medical personnel
  - Society and the law
- **Is it in one's best interest to be born?**

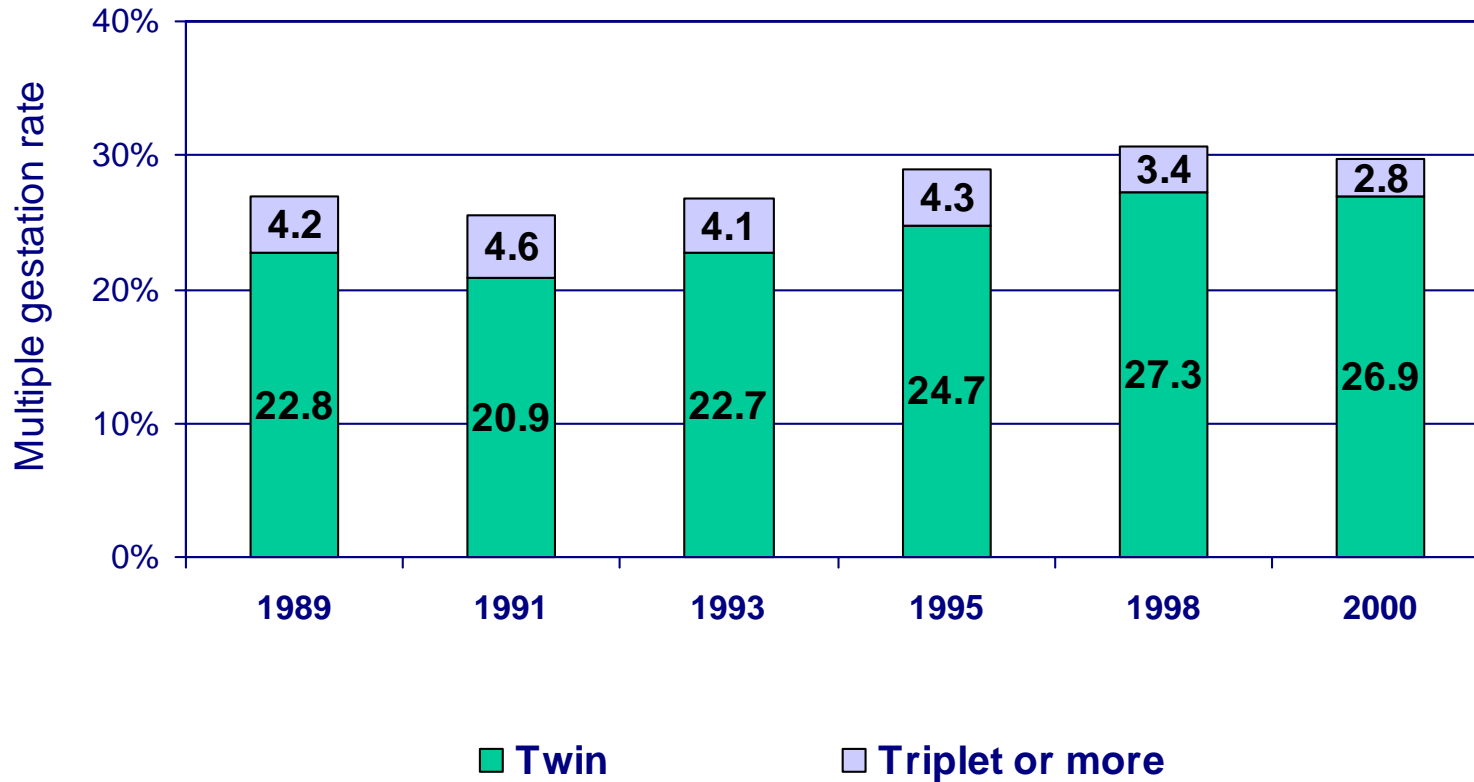


**TABLE 7****Welfare of the child.**

Country	Regulation/guidelines on child welfare
Argentina	<i>No</i>
Australia NSW/T/NT/C	<b>Man + woman</b>
Australia (West)	<b>No harm/reprod tech Act 91, pretreatment counseling</b>
Australia (South)	<b>Fit, proper person</b>
Austria	<b>Anonymous right origins 14</b>
Belgium	<b>No</b>
Brazil	<b>1358/92</b>
Canada	<i>No</i>
China	<i>No</i>
Czech Republic	<b>Women 18 to 45 y, married, stable</b>
Denmark	<b>Stable relationship (3 y)</b>
Egypt	<i>Yes, marriage</i>
Finland	
France	<b>No</b>
Germany	<b>Not posthumous, socially stable</b>
Greece	<b>No</b>
Hong Kong	Married/stable
Hungary	<b>Married/stable</b>
India	<b>Law</b>
Ireland	
Israel	<i>No</i>
Italy	
Japan	<i>No</i>
Jordan	Marriage
Korea	<i>No</i>
Mexico	<i>No</i>
the Netherlands	<b>Yes</b>
Norway	<b>No</b>
Poland	<i>Stable</i>
Portugal	<i>Draft bill for stable couples</i>
Saudi Arabia	
Singapore	<b>Married</b>
South Africa	<b>Stable</b>
Spain	<b>Good mental and phy health</b>
Sweden	<b>Stable; physician responsibility</b>
Switzerland	<b>DI marriage, no other</b>
Taiwan	<b>Married</b>
Turkey	<b>No</b>
United Kingdom	<b>Yes</b>
United States of America	<i>No</i>
Venezuela	<i>No</i>



## MULTIPLE GESTATION IN IVF (World Report 1989 - 2000)





## Ethical issue/ multiple pregnancies

Two reasons driving the increase

- Need for better success rates
- Patient's "choice"/ pressure (lack of accurate information)

International attempts to reduce multiple pregnancies

**LIFE**

Picture of the Day





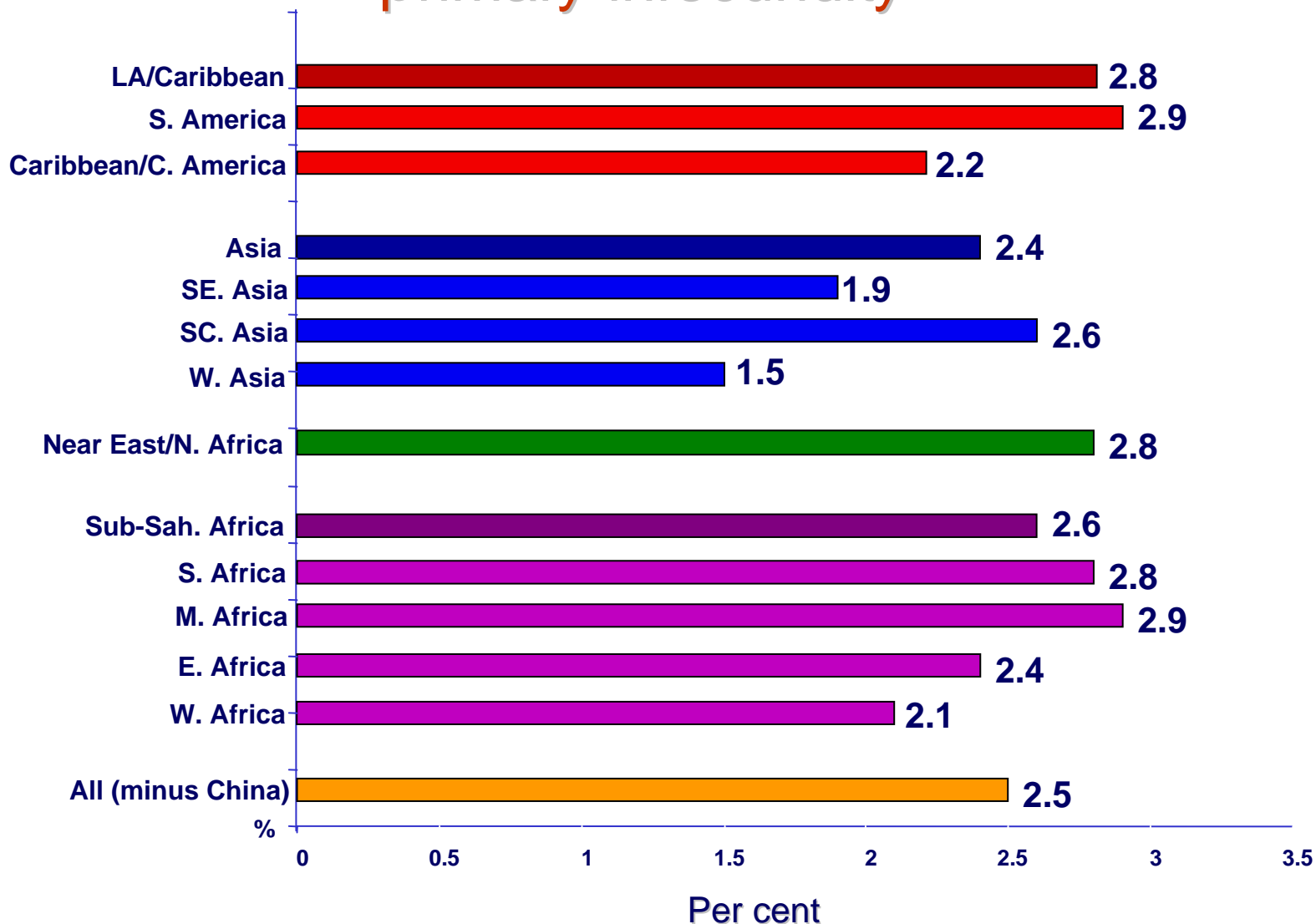


## **Ethical issues/ ART in developing countries**

- **Magnitude of infertility**
- **Access to quality ART clinics/justice- safety**
- **Issue of resource allocation/justice**

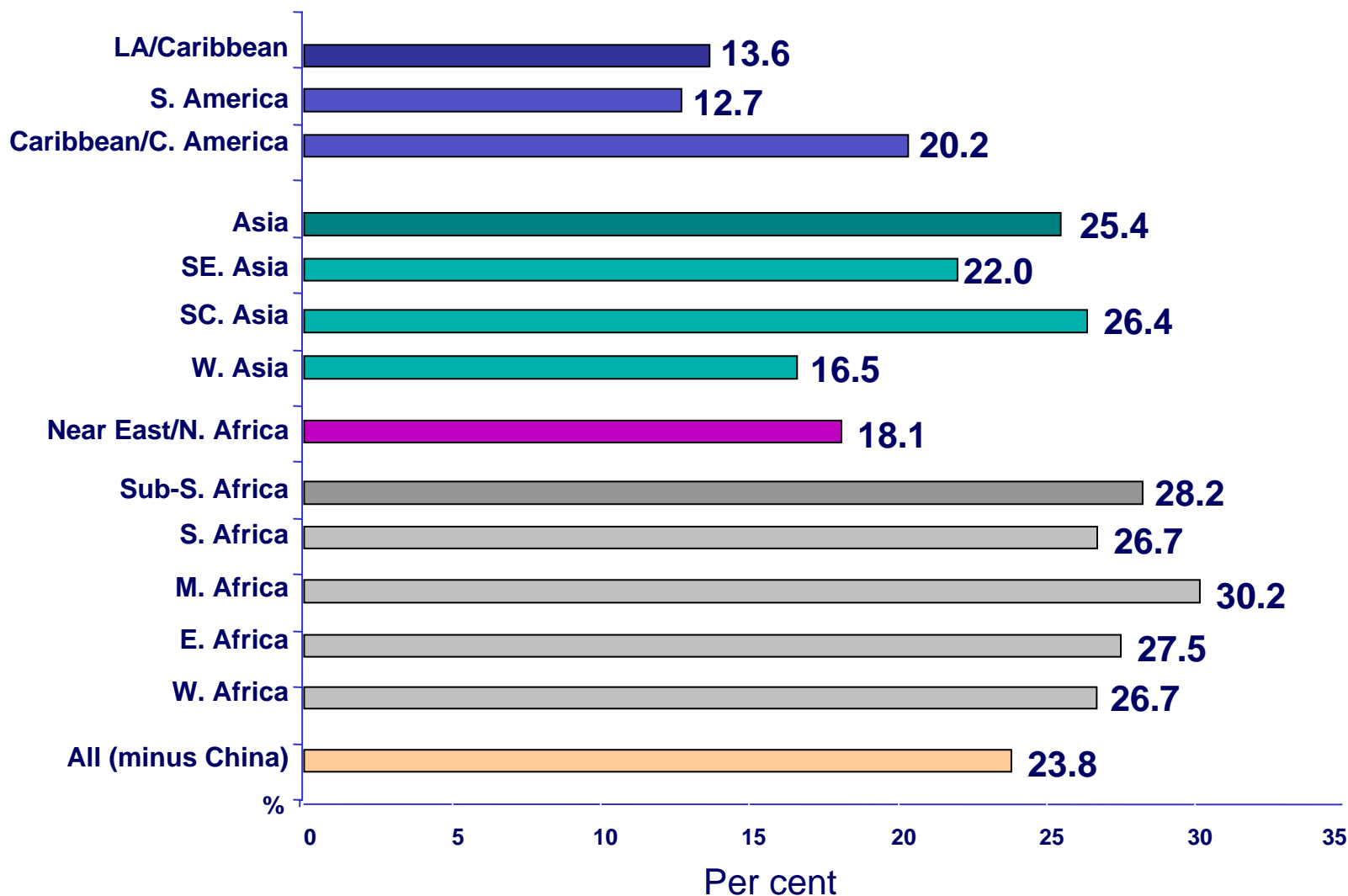


# Estimated prevalence of involuntary primary infecundity





# Estimated prevalence of involuntary secondary infecundity



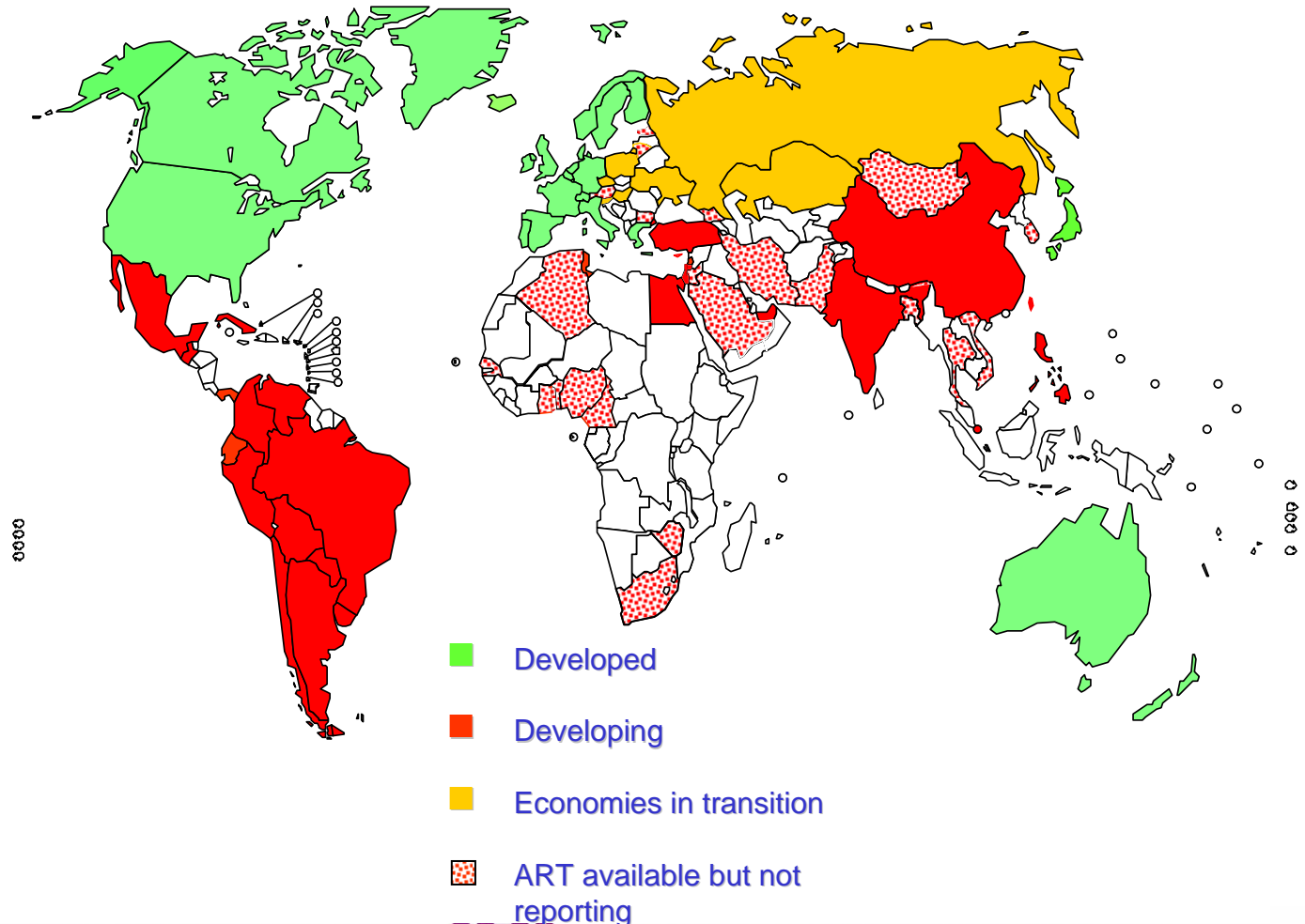


## Main arguments

- “overpopulation”
- limited resources and burden of disease
- poorly trained practitioners offering demanding services
- cultural and religious values



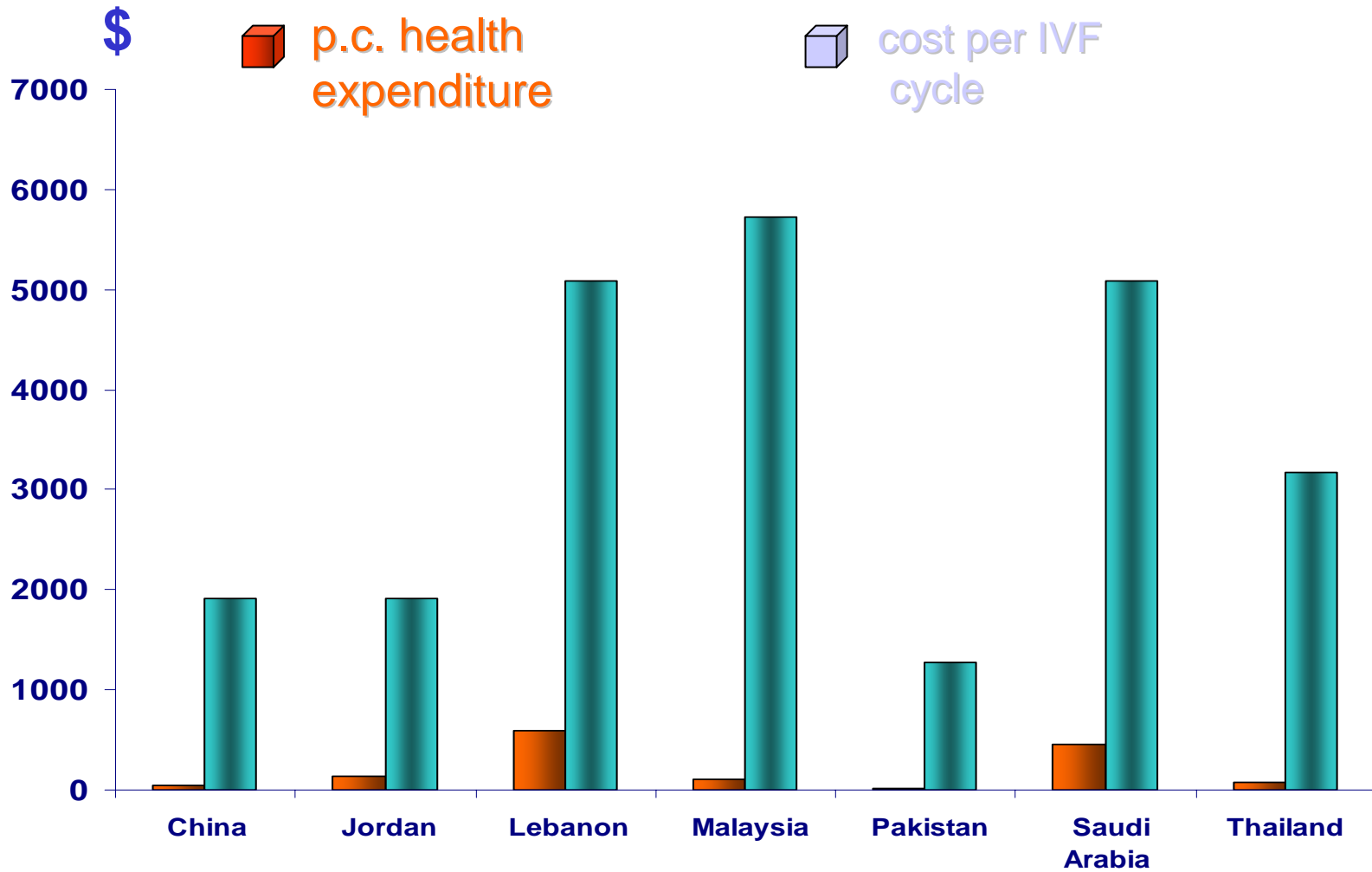
# Countries reporting to ICMART in 2000 and countries where ART is available but no data reports





Success rates (IVF, ICSI) according to the World Report 2000

	IVF	ICSI
Pregnancy rate <hr/> OPU	26.7%	27.7%
Delivery rate <hr/> OPU	18.6%	20.4%

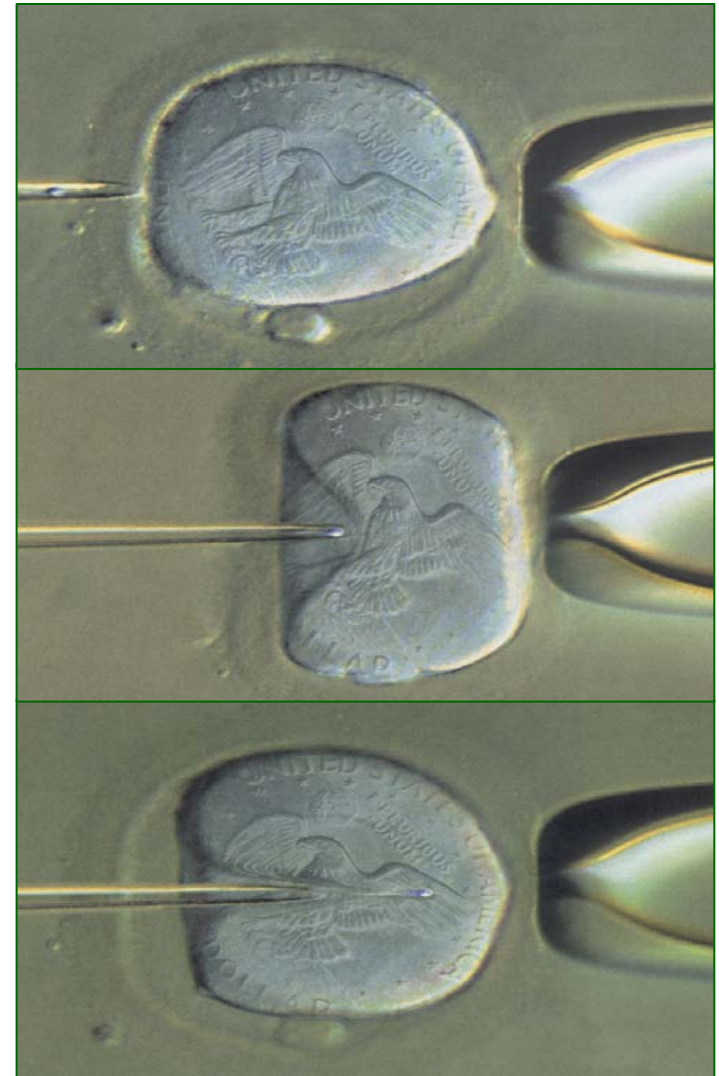


(Sources: Collins, 2002; World Health Report, 2002)



## Infertile couple's willingness to pay (WTP) for treatment

US survey (1994):	
WTP	US\$ 17,730
p.c. expenditure for health	US\$ 3,579
Swedish survey (1995):	
WTP	SK 10,000
average monthly salary	SK 3,000



(Sources: Neumann, 1994; Grandberg 1995; World Health Report 1995)





Issues to consider in the ethical debate  
Human rights of the individual

- Right to found a family  
(Universal Declaration of Human Rights, 1948, Article 16.1)
- Right to enjoy the benefits of scientific progress and its applications  
(International Covenant on Economic, Social and Cultural Rights, 1966, Article 15.1)



Slippery slope?

