# Consequences and suggested measures: fight it or accept it?


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# My talk

- Assisted Reproduction Technologies (ART)
  - Present status and likely development
- Cross border reproductive care
  - Scale
  - Drivers
  - Future
- Is it a problem?
  - Will try to see it form different angels
  - Patients. Governments
- Measures?

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# My talk

- Assisted Reproduction Technologies (ART)
  - A treatment cycle:
    - Hormonal stimulation (started cycle)
    - Oocyte recovery
    - Fertilization *in vitro*
    - Embryo replacement (completed cycle)
  - Patients are usually offered several treatment cycles

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# My talk

- Assisted Reproduction Technologies (ART)
- *In vivo* fertilization
  - Hormonal stimulation and coitus
  - Insemination (incl. donor semen)
- *In vitro* fertilization
  - IVF/ICSI
  - Replacement of frozen embryos
  - Oocyte/semen donation
  - Surrogacy

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# What should we call it ?

- Patient tourism?
- Patient migration?
- Cross border reproductive care?

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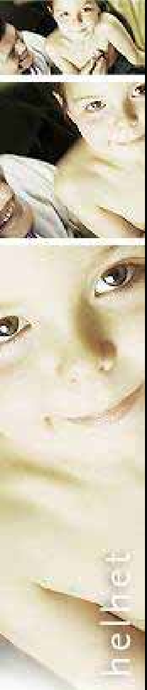


# Cross border reproductive care?

- Will use Norway as example of a “donor” country
  - Norwegian infertile couples have for many years chosen to be treated outside of Norway. Reasons:
    - Accessibility
      - Waiting lists domestically
    - Availability
      - Donor oocytes
      - Donor semen (anonymous)
      - Single women, lesbian couples
    - Marketing
      - Foreign clinics: “We’re better than the Norwegians (morons)”
      - Norwegian doctors with financial incentives from  abroad

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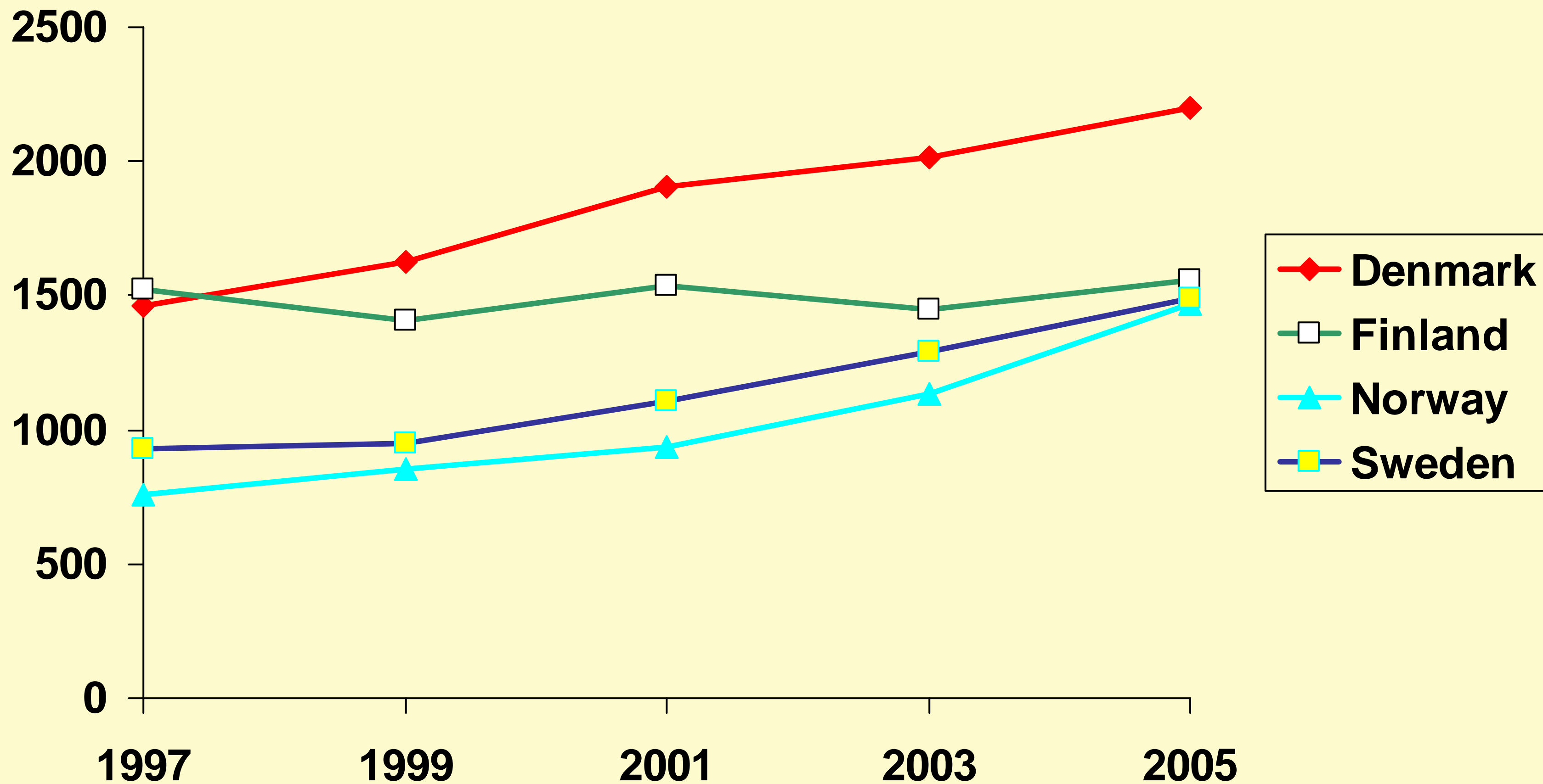
# Number of ART cycles per million inhabitants in the Nordic countries 1997 – 2005

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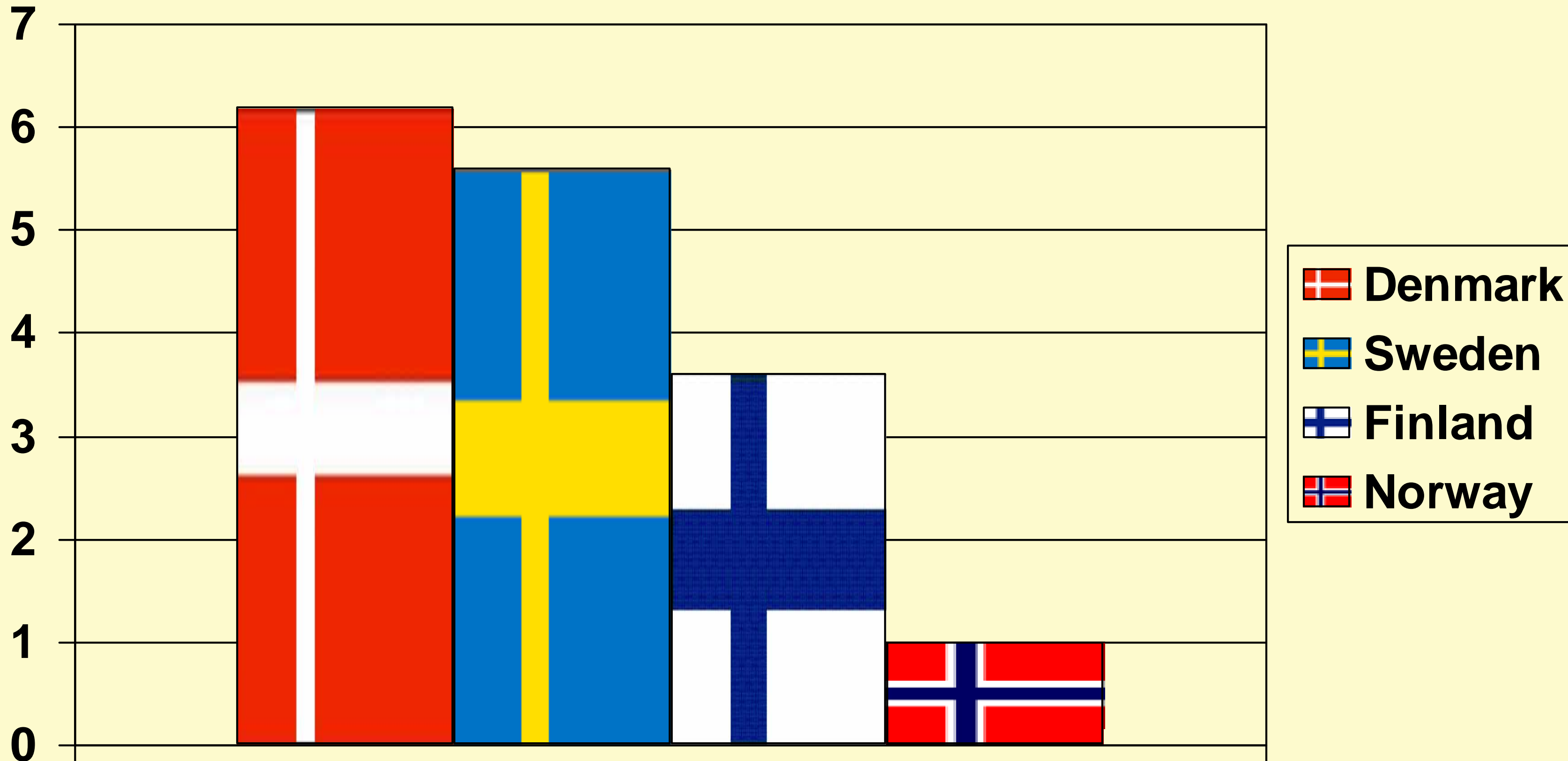
# Governmental support of public ART-units in the Nordic countries per capita per year




* Estimate based on number of ART cycles and reimbursement of the Clinics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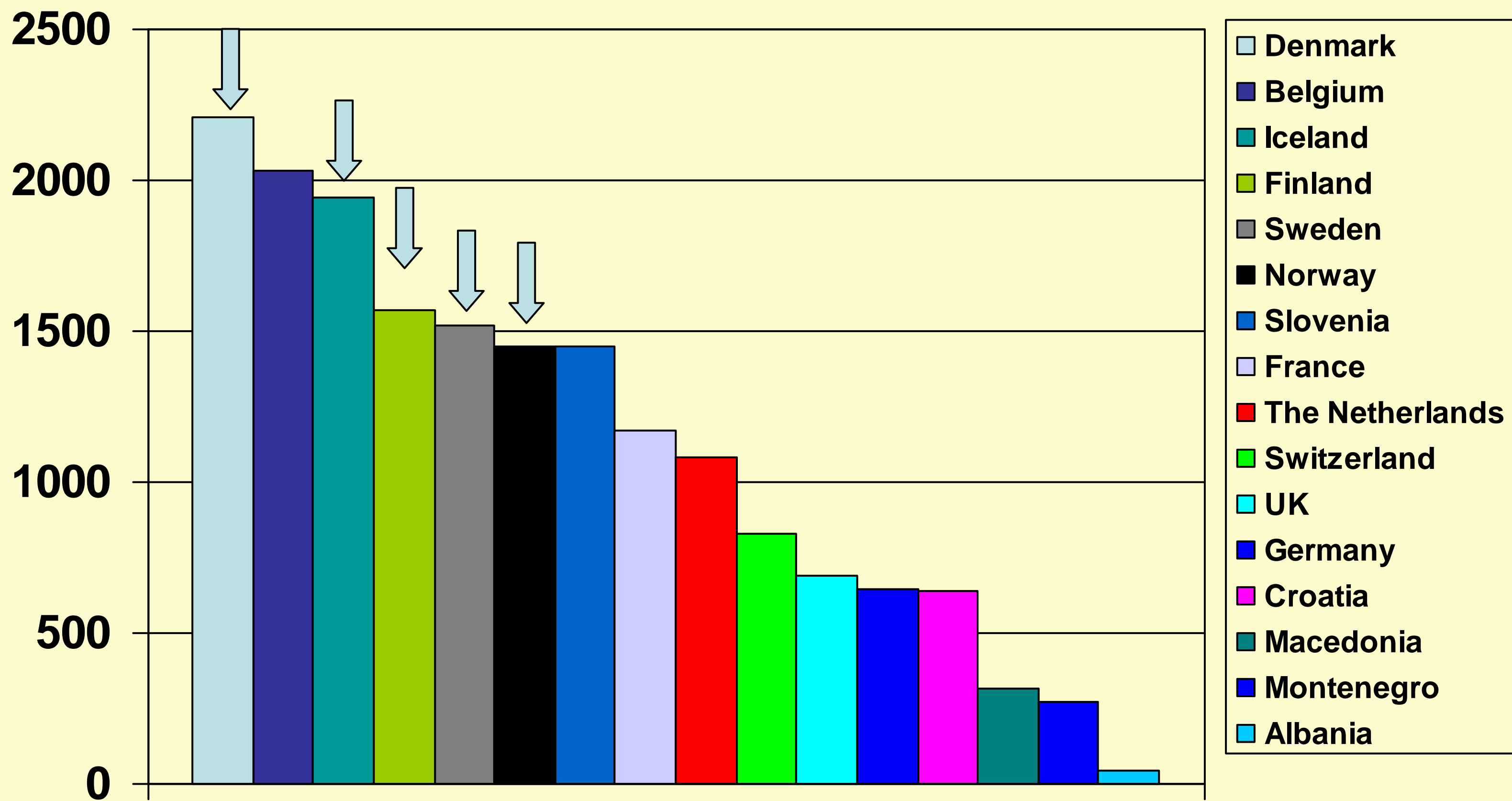
# Number of ART treatment cycles per million inhabitants in 2005

## Countries where all clinics report




Nyboe Andersen et al, Human Reproduction, 1–21, 2009

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# Births after ART as % of all births in 2005

## Countries where all clinics report

4,5
4
3,5
3
2,5
2
1,5
1
0,5
0

- Slovenia
- Denmark
- Belgium
- Iceland
- Finland
- Sweden
- Norway
- France
- United Kingdom
- Germany

% of all biths

Nyboe Andersen et al, Human Reproduction, 1–21, 2009

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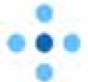

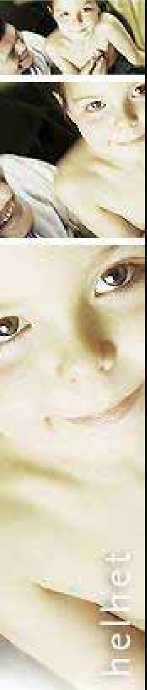


# Number of ART treatment cycles in Norway

- I 2005:

- 7679 ART treatment cycles in Norway
  - 1404 deliveries
  - 1665 children

- From treatments abroad
  - ??? No data available

  - Guesstimate:
    - More than 1000 cycles
    - >150 deliveries

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# Clinics treating Norwegians abroad

- **Governmental university clinics who offer treatment to private patients**
  - Culture:
    - "Evidence based medicine"

- **Private clinics run by people with cultural background from Public hospitals**
  - Culture:
    - similar to public units, but need to be a bit more flexible towards wishes from the patient

- **Private units run by business entities**
  - Culture:
    - as any other businesses
    - "if the client pays too much for too little; well that's their problem.

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# From the patients perspective
## Domestic or abroad?

- Support to the Norwegian patients from the government is less generous than in many countries
  - Difference in cost between public or private treatment less
  - Norwegian couples can get governmental support for ordinary ART-treatments abroad
    - a Norwegian speciality
  - Norway have had a very restrictive Law governing ART
    - Not same-sex couples
    - No oocyte donation
    - Only semen donation with known donor
    - No surrogacy

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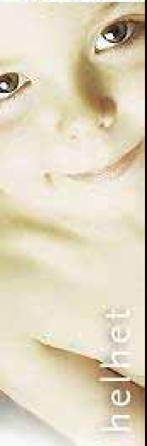

# Patient migration from Norway

- **Phase 1**

- ”The Danes”
  - A lot from the Southern part
    - Efficient Danish marketing
    - Economic incentives for Norwegian doctors

- Some to UK, Sweden and Finland

Image NASA
Image © 2007 TerraMetrics

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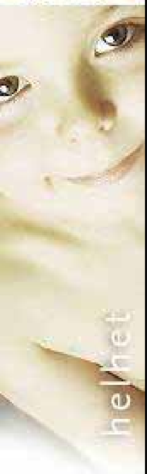


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# Patient migration from Norway

- **Phase 2**
- Denmark still popular
- Finland and Spain enters the scene
  - Oocyte donation
- Some to US
  - surrogacy
- PGD treatment abroad paid by the Norwegian government

Image NASA

# The EU-Directive” a new driver

- **The EU Directives concerning ”Safety and Quality ” of donation of cells are implemented in most European countries.**
- **Aim**
  - Protecting the patients
    - Very detailed and demanding
      - Professional Quality management
      - Specific requirements concerning serologic testing, traceability , personnel and premises
- **Effect**
  - Increased cost for clinics (and patients) especially for clinics involved in donation of gametes
- **Implemented very differently in different countries**
  - This will most likely led to increased migration of patient
    - Within EU
      - Tough or lenient implementation?
    - Outside of EU
      - Less expensive

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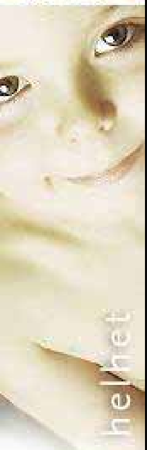


# Patient migration from Norway

- **Phase 3 – next phase**
  - Expansion outside EU/EEA
- New players
  - Russia
  - Ukraine
  - India
- Often organised by clinics within EU/EAA

# A change in the structure of fertility clinics in Europe

- The pioneer generation disappears
  - Clinics run by strong Egos - "in it for the fun of it"
    - Small and large clinics
- The emergence of large business structures
  - Multinational companies
    - "one-stop shop"
- This is a natural maturation of Fertility services as a business sector.

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# Fertility service as business

- Patients
  - Want value for money
  - Willing to pay more to get more
- Clinic
  - Competition and marketing
  - Maximizing profit
- This is quite natural and should not come as a surprise to anyone
- The society's perspective and wishes is relevant only to the extent it has given
  - Legislative constraints
  - Economic constraints or incentives

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# Cost associated with ART

| | |
|---|---|
| Cost | Covered by: |
| Drugs<br>Procedures | Health provider and/or Patients |
| Pregnancy surveillance<br>Delivery<br>Follow-up | Health provider |

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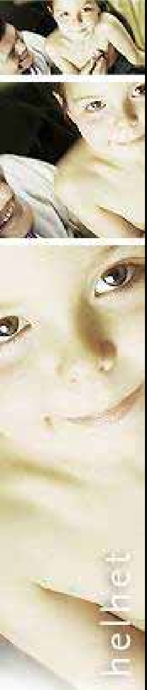


# When patient have to bear the cost for drugs and procdures

- Private clinics have to be competitive
  - Often bench-marked on pregnancy rates
    - Tough world out there
  - Replacing many embryos
    - High pregnancy rate – high multiple pregnancy rate
  - Selective reduction (abortion) when too many foetuses.
- When the patients have to bear a high proportion of the cost of drugs/procedure
  - They accept a 40% multiple pregnancy rate
    - ”two for one”–

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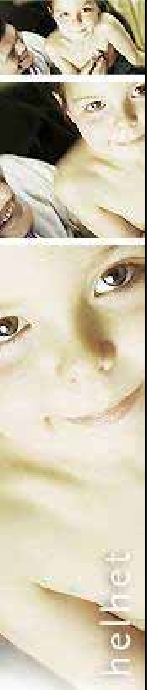
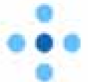



# Number of embryos replaced

| | 1 | 2 | 3 | 4 or more |
|---|---|---|---|---|

Chart: y-axis 0 % – 100 %; categories: St. Olav 2006, Norway 2005, Spain, UK, Greece; legend: 4 or more, 3, 2, 1

Human Reproduction Vol.22, 1513–1525, 2007



# Multiple pregnancies

100 %
90 %
80 %
70 %
60 %
50 %
40 %
30 %
20 %
10 %
0 %

St.Olav 2006
Norge 2005
UK
Spania
Hellas

Triplets
Twins
Singltons

Egne data og fra Human Reproduction Vol.22, 1513–1525, 2007

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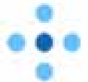
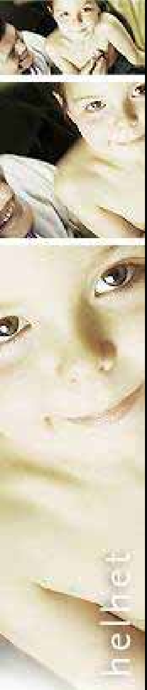





# Multiple pregnancy rates 2003*

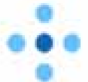
| Public support of Art | Country | Multiple pregnancy rate |
|---|---|---|
| Generous | Belgium | |
| | Finland | |
| | Sweden | |
| Medium | Norway | |
| | Germany | |
| | UK | |
| Small | Greece | |
| | Spain | |
| | Hungary | |

Y-axis: 0, 5, 10, 15, 20, 25, 30, 35, 40

Public support of Art

Generous Medium Small





*Human Reproduction Vol.22, 1513–1525, 2007

# Cost of pregnancy care and delivery including 1.st neonatal week*

- Singleton
  - Approx. EUR 4 400
- Twins
  - Approx. EUR 25 000
- Triplets
  - Approx. EUR 100 000
    - France

*European mean

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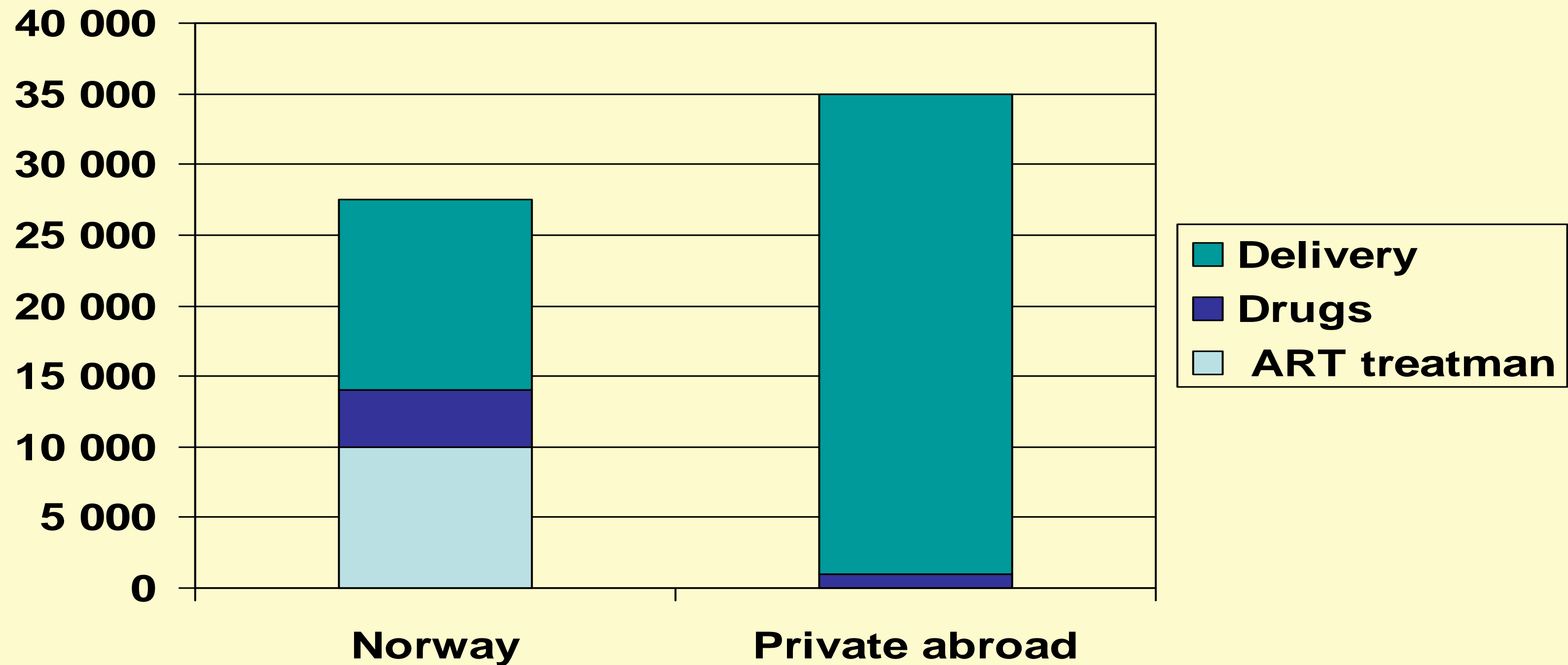
# 100 treatment cycles domestic or abroad

## Mean cost/cycle for the Government (NOK)




Governmental subsidy of drugs
Governmental support to public fertility clinics
Pregnancy care, delivery and 1st neonatal week

Treated at St. Olav's Hospital or in Central/Southern Europe

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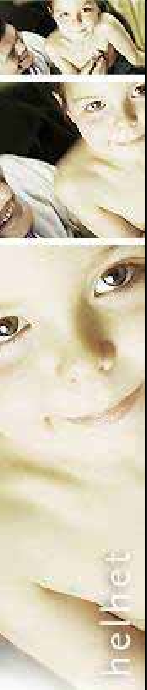


# Multiple pregnancies

60
50
40
30
20
10
0

Singletons
Twins
Triplets

Stillbirth
Perinatal deaths
Infant deaths

**Incidence/1000**

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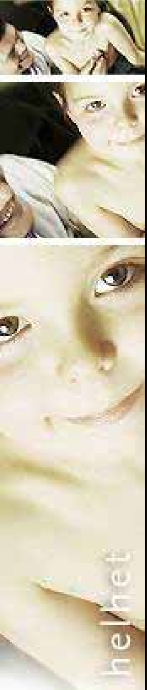


# Cross border reproductive care
# Patients perspective

- Advantages
- A security valve
  - Access
  - Availability
- Discretion
- "Get what they want"

- Disadvantages
- Cost
  - Not reimbursed
  - Unnecessarily costly
- Can be exploited
- Multiple pregnancies and hyperstimulation syndrome

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# Cross border reproductive care Governments perspective

- Advantages
- A security valve
  - Governmental clinics shorter waiting lists
  - Demands for a change of laws and regulations less

- Disadvantages
- Loss of information
  - Outcome and side-effects of ART uncnown
- Total cost to society increased

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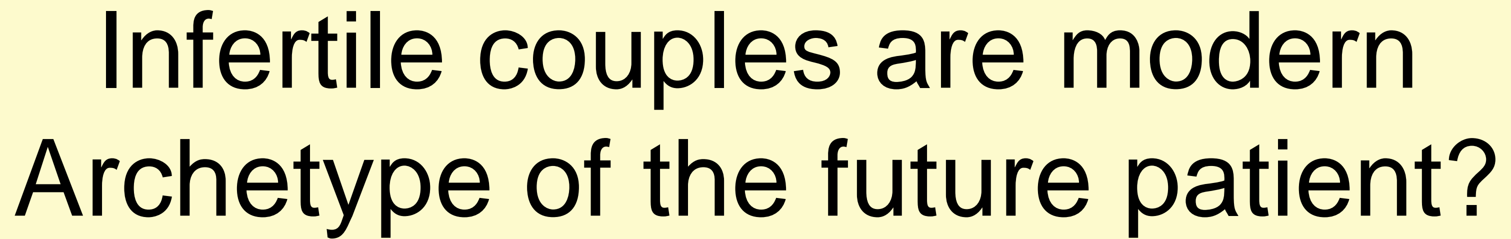
# Paradox

- The debate about public spending on ART in Norway has to a large extend been focused on reducing then public spending
  - ”low priority” . ”not a disease”
  - Reimbursement in Norway not very generous
- This and the strict Laws has encourages Norwegian patients to seek treatment abroad
- Total cost to the society larger than if these patients have been offered treatment domestically




- Cross border reproductive care since end of 70-ties
- Lot of information on the Internet
- Most (all) private clinics have beautiful web-sites
  - Mixture of facts and pure marketing
- Infertile very active ”chatters”
  - Often they trust their peer more than the professionals
  - A lot of misunderstandings and misinformation
- **Misinformation: In my opinion a big problem**

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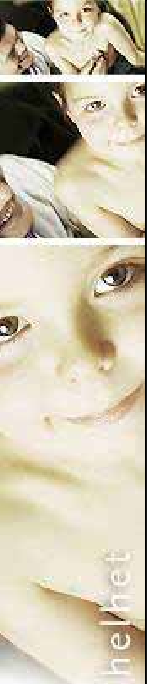


# Cross border fertility care – a problem ?

- Unfair – the rich vs. the less fortunate

- National ambitions
  - provide health care for the citizens
- National health care priorities
  - loss of control
- Domestic cost
  - multiple pregnancies and malformations
- Loss of control/surveillance

- Exploitation of patients and donors

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# Options

- Legislation
- Economic incentives/disincentives
- Increase domestic infertility service
- Information

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# Cross-border patient migration

- A pan-European law on ART ?
- Politically impossible
  - futile to work towards that
- Is it really desirable ?
  - not everybody thinks so…
- It is however a case for harmonization

# Cross-border reproductive care possible action points

- Argue for Legal harmonization and at least partial reimbursement
- Agree on a minimum flow if information
  - To the patients
  - To the treating clinic
  - To the health service in the resident country
- Open pragmatic attitude from the local health/social service
- Accreditation/Certification systems

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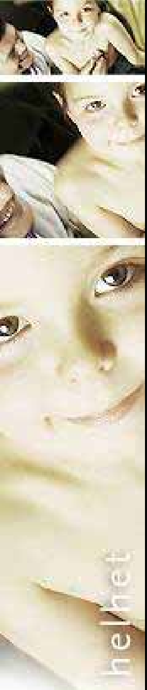

# Cross-border patient migration

- Economic incentives/disincentives
  - Government should do a realistic cost estimates which includes the cost/benefit of cross border migration
- Offer affordable and accessible treatment at home less costly for the government?
  - A more pragmatic approach

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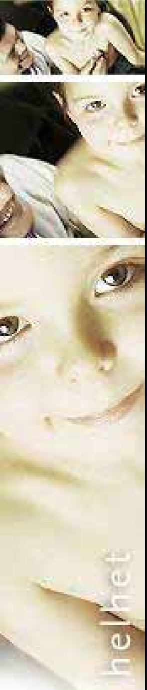

# Cross-border patient migration

- Information
  - Empower the patient
    - Create independent and dynamic information databases in collaboration with patient groups
      - Must be perceived as
        - » Independent from the governmental and political motives
        - » Independent of the interest of domestic clinics

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# Summary

- Cross border health care is here to stay
  - Most likely it will increase
- Patients will want to be autonomous
- Protection of donors and patients important
- Health care as a maturing business sector
  - Multinational companies
- Traditional paternalistic and legislative approached will not work
- Pragmatism and collaboration can work
  - The informed and empowered patient

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