ICMART is a non-State actor in official relations with the World Health Organization.

David Adamson: USA/Canada
Fernando Zegers: Chile
Jacques de Mouzon: France
Osamu Ishihara: Japan
Silke Dyer: South Africa
Ragaa Mansour: Egypt
Manish Banker: India
Georgina Chambers: Australia
Disclosure

- The authors declare that they have no commercial or financial interest pertaining to the subject of this presentation or its content.
ICMART International Glossary

The International Glossary on Infertility and Fertility Care, 2017

Fernando Zegers-Hochschild, a G. David Adamson, b Silke Dyer, c Catherine Racowsky, c Jacques de Mouzon, a, Rebecca Sokol, e Laura Rienzi, d Arne Sunde, b Lone Schmidt, b Ian D. Cooke, e Joe Leigh Simpson, a and Sheryl van der Poel a

Definition of Infertility 2017

A **disease** characterized by the **failure** to establish a clinical **pregnancy** after **12 months** of regular, unprotected **sexual intercourse or** due to an **impairment** of a person’s capacity to reproduce either as an **individual** or with his/her **partner**. Fertility **interventions** may be initiated in less than one year based on medical, sexual and reproductive history, age, physical findings and diagnostic testing. Infertility is a **disease**, which **generates disability** as an **impairment of function**.
World Report Coverage History

2015: 1,722,412 cycles (+4.5%)

* India delayed
# 10 Main Contributors in 2015

<table>
<thead>
<tr>
<th>Country</th>
<th>Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>424,151</td>
</tr>
<tr>
<td>US</td>
<td>174,040</td>
</tr>
<tr>
<td>Spain</td>
<td>117,356</td>
</tr>
<tr>
<td>Russia</td>
<td>109,136</td>
</tr>
<tr>
<td>Germany</td>
<td>96,512</td>
</tr>
<tr>
<td>France</td>
<td>92,995</td>
</tr>
<tr>
<td>Italy</td>
<td>71,788</td>
</tr>
<tr>
<td>Australia</td>
<td>69,903</td>
</tr>
<tr>
<td>UK</td>
<td>64,232</td>
</tr>
<tr>
<td>Taiwan</td>
<td>42,176</td>
</tr>
</tbody>
</table>

73.3% of 1,722,412 cycles
Participation and Coverage

- 25 countries in 1991 → 76 in 2015
  - Almost all of Europe, the Americas, Australia-NZ
  - Missing countries: Middle-East, Asia
  - 14 African countries (Benin, Burkina Faso, Cameroon, Egypt, Ghana, Ivory Coast, Mali, Mauritius, Morocco, Nigeria, Senegal, South Africa, Togo, Tunisia)
- 2,691 clinics (-43)
  - 85% of all clinics in reporting countries
- 31 countries >90% coverage (+6); 24 (full -7)
- But incomplete information

63-70% of World ART activity
ANARA (African Network and Registry for ART) involved in 2014 data collection from 14 countries

Website and registry access: www.anara-africa.com

Growth and capacity building
- 14 countries
- 7 workshops
- 1st data released
Growth of ART Cycles by Region

- North America
- Latin America
- Europe
- Aust-NZ
- Asia
- Middle East
- Africa
- China? ~600K
Regional Contribution 2015

N=1,722,412 Cycles

- Europe: 49%
- North America: 1%
- Australia: 3%
- Latin America: 4%
- Middle East: 4%
- Asia: 4%
- Africa: 12%

Corresponds to aspiration cycles in IVF, ICSI & GIFT and transfer cycles in FET & OD.
<table>
<thead>
<tr>
<th>Global Results 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1,722,412 initiated cycles</td>
</tr>
<tr>
<td>- 336,856 deliveries</td>
</tr>
<tr>
<td>- Compared to 2014</td>
</tr>
<tr>
<td>- + 74,635 cycles (+4.5%)</td>
</tr>
<tr>
<td>- + 25,663 deliveries (+8.2%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recent trend: Freeze-all</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 155,803 cycles (+20%)</td>
</tr>
<tr>
<td>- 94,158 in Japan (+13%)</td>
</tr>
</tbody>
</table>

- Not included in calculations of PR or DR/cycle or aspiration
- Included in cumulative PR
- Probably underreported
2015: 1,722,412 cycles

<table>
<thead>
<tr>
<th>Cycles types</th>
<th>n</th>
<th>Delivery rates**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,017,020 aspirations</td>
<td>+1.0%</td>
<td></td>
</tr>
<tr>
<td>• IVF:</td>
<td>297,099</td>
<td>19.2% (-1.0%)</td>
</tr>
<tr>
<td>• ICSI*:</td>
<td>678,166</td>
<td></td>
</tr>
<tr>
<td>• GIFT:</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>FET</td>
<td>+6.8%</td>
<td>24.8% (+1.9%)</td>
</tr>
<tr>
<td>PGD/PGS (now PGT)</td>
<td>+57.7%</td>
<td>36.7% (+8.0%)</td>
</tr>
<tr>
<td>Egg donations (-10.2%)</td>
<td>-10.2%</td>
<td>29.8% (+4.4%)</td>
</tr>
<tr>
<td>Cancellations</td>
<td>+74.7%</td>
<td>67,354</td>
</tr>
<tr>
<td>• reported by 52 (+15)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not counted / countries combining IVF& ICSI: Israel
** DR after removing Freeze-all cycles
Trends in Distribution: Aspirations, FET, OD
Trends in Distribution: IVF cf. ICSI
IVF cf. ICSI by region 2015

North Am: 76.3%
Latin Am: 85.4%
Europe: 71.3%
Aust-NZ: 65.1%
Asia: 61.8%
Africa: 83.0%
Fresh and Cumulative DR/Asp by Region 2015: IVF & ICSI

Fresh cycles: freeze all cycles excluded
Delivery and Twin Delivery Rate (Fresh/Asp) by region 1998 cf. 2015

- North Am
- Latin Am
- EU
- Aust-NZ
- Asia
- Africa

- Deliv/Asp, 1998
- Twin Del, 1998
- Deliv/Asp, 2015
- Twin Del, 2015
Triplet Pregnancies (% of Deliveries) by region 1998 cf. 2015

- North Am
- Latin Am
- EU
- Aust-NZ
- Asia
- Africa

Comparison between 1998 and 2015.
## Summary

<table>
<thead>
<tr>
<th></th>
<th>No. Cycles</th>
<th>Babies Born</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported</td>
<td>1,722,412</td>
<td>462,856</td>
</tr>
<tr>
<td>Estimated globally</td>
<td>2.5-2.7 Million</td>
<td>661,000-735,000</td>
</tr>
<tr>
<td>Increase</td>
<td>4.6%</td>
<td>29.4% (Better reporting)</td>
</tr>
<tr>
<td>Average number of embryos transferred</td>
<td>1.69 (-0.04)</td>
<td>+/- 8.7 Million since 1978</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>DR/Asp</th>
<th>ICSI rate</th>
<th>Age &gt;40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td>19.2%</td>
<td>69.5%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Decrease from 2014</td>
<td>-1.0%</td>
<td>-1.1%</td>
<td>-8.2%</td>
</tr>
<tr>
<td>Cumulative</td>
<td>28.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease from 2014</td>
<td>-0.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion

- **Increase**
  - Number of cycles
  - Number of babies
  - PGT

- **Stable ICSI and women > 40y**

- **Decrease**
  - Average number of embryos transferred
  - Multiple pregnancies

- **Wide differences in utilization, practice and results**

- **Registry issues: Day of transfer, Freeze-all, PGT**
Thank You To Our Contributors

EUROPE : ESHRE (39) : Albania, Austria, Belarus, Belgium, Bosnia, Bulgaria, Croatia, Cyprus, Czech Rep, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Macedonia, Malta, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovenia, Spain, Sweden, Switzerland, UK, Ukraine

AUSTRALIA—NEW ZEALAND (2)

LATIN AMERICA (15) : Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay, Venezuela

NORTH AMERICA (2) : Canada, USA

NATIONAL REGISTERS (7) : India, Indonesia, Israel, Japan, Korea, South Africa, Taiwan

INDIVIDUAL CLINICS (13) : Benin, Cameroon, Egypt, Ghana, Ivory Coast, Mali, Mauritius, Morocco, Nigeria, Senegal, Togo, Tunisia
ICMART Contributors 2014
Thank You to our Sponsoring Organizations